

2014

## UMSL Bulletin 2014-2015

University of Missouri-St. Louis

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# Bulletin Home

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This Bulletin includes a description of undergraduate and graduate policies and programs at the University of Missouri-St. Louis for 2014-2015. All statements in this publication concerning regulations, fees, curricula, or other matters are subject to change without notice. They are not to be regarded as offers to contract.

The University of Missouri-St. Louis is accredited by the Higher Learning Commission of the North Central Association. This accreditation applies to all baccalaureate, masters, and doctoral levels. Our next scheduled comprehensive evaluation will be in 2018-2019.

The policies of the University of Missouri-St. Louis comply with the provisions under those laws that forbid discrimination on the basis of race, color, sex, national origin, religion, age, handicap, or veteran status in any program or activity of the University.

Bulletins for the past five years are posted in the archives section of this site. Older versions are available in campus advising offices and Academic Affairs. Program requirements are also available to students through Degree Audit Reports (DARS) (<http://www.umsl.edu/services/dars>), which are available online or from an academic adviser, who will assist in the interpretation of the audit.

The University of Missouri-St. Louis is one of four campuses that constitute the University of Missouri. Established in Columbia in 1839 on the ideals of Thomas Jefferson, the University of Missouri became a land-grant institution upon passage of the Morrill Act by Congress in 1862.

When the University of Missouri System was organized in 1963, the St. Louis campus was the only one that started as an entirely new university. The University of Missouri-St. Louis began as a consequence of the national movement to create public universities in metropolitan centers. UMSL was designed to educate the area's professionals through research, coursework, and hands-on experiences in the region's businesses, schools, hospitals, agencies, and the arts.

According to the campus's history, *The Emerging University: The University of Missouri-St. Louis, 1963-1983*, faculty were hired from prestigious universities with a vision of creating a university where graduates would be able to confront urban issues through research, critical thinking, and creativity. More than traditional workforce development, these leaders' vision for UMSL was to educate students for lifelong learning, which would produce good citizens and effective leaders in the region's organizations. That legacy continues because those early leaders created a culture of faculty excellence that persists today.

Since the doors of the old Administration Building opened on a golf course almost 50 years ago, UMSL has grown to encompass 350 acres of beautifully landscaped rolling hills. The campus is now St. Louis's largest university in the number of students and is the third largest in the state.

Out of pride in the successes of our students, faculty, and staff and our culture of quality improvement, the campus posts on the Web recent highlights on the UMSL home page, detailed information on the About UMSL site, and student achievement data on the College Portrait.

## Mission

### Vision

The University Missouri-St. Louis will be known as a premier metropolitan public research university and as a university of choice for undergraduate, graduate and professional students.

### Mission

The University of Missouri-St. Louis provides excellent learning experiences and leadership opportunities for a diverse student body. Outstanding faculty and staff, innovative research, and creative partnerships foster synergies that advance the welfare of our students and other stakeholders and benefit the global society.

## Faculty Senate and University Assembly

The Faculty Senate (<http://www.umsl.edu/committees/senate>) has primary responsibility for making educational policy decisions to create a rigorous, innovative, student-oriented environment for learning, research, and community service. The Senate and University Assembly together and through their committees advise the chancellor and other senior administrators on matters related to students, faculty and staff.

The Faculty Senate has 40 faculty members, 30 representing departments and 10 elected at large. In addition, three administrators are non-voting members. The voting members of the University Assembly consist of the elected members of the Senate; the president; the chancellor; the vice chancellor for academic affairs; the dean of the graduate school; the vice provost for student affairs; the dean of continuing education; student representatives equal in number to one-third of the faculty members of the assembly; and three staff members, including the president of the Staff Association. Non-voting members consist of vice chancellors and vice provosts not already included, deans of all colleges, the dean of libraries, and the president of the Student Government Association. The Faculty Senate meets monthly between September and May and the Assembly meets in alternate months during the year. Information about the Faculty Senate and University Assembly are available on the Senate's Web site.

## Staff Association

The University of Missouri—St. Louis Staff Association (<http://www.umsl.edu/services/sassoc>) is a body formed to consider, to recommend, and to take such other actions as are properly related to the common concerns and best interest of those personnel at the University of Missouri-St. Louis. The Staff Association fosters a spirit of unity and cooperation among all employees of the University of Missouri-St. Louis, to consider methods and means by which employment conditions may be improved and the operating efficiency of the University of Missouri-St. Louis increased; to receive and consider matters concerning working conditions of membership; to make such recommendations that it deems appropriate, and to provide a means of communicating problems of mutual concern between the Staff Association and the University of Missouri-St. Louis administration. Representatives of the Staff Association serve as voting members of University Assembly committees.

## Student Government Association

The Student Government Association (<http://www.umsl.edu/studentlife/sga>) (SGA) of the University of Missouri St. Louis, housed in 366 Millennium Student Center, 314-516-5105, is the student governance body at UMSL. SGA is comprised of elected student representatives and a general assembly which includes representatives from all recognized

student organizations. The purpose of the SGA is to represent student concerns at every level of governance within the university. This is done by ensuring adequate and capable student representation within the University Assembly, the policymaking and governance body of the university.

## 2014-2015 Calendar

### Fall Semester - 2014

Date	Weekday	Event
August 25	Monday	Classes Begin 8:00 a.m.
August 31	Sunday	Last day a student may enroll
August 31	Sunday	Last day Registrar's Office will automatically move students from the wait list to open sections
September 1	Monday	Labor Day Holiday
September 2	Tuesday	Classes Resume, 8:00 a.m.
September 22	Monday	Last day to drop a course or withdraw from school without receiving a grade
September 22	Monday	Last day any student may place a course on Satisfactory/Unsatisfactory basis
October 20	Monday	Mid Semester
November 17	Monday	Last day a student may drop a course. Instructor's approval is required. A grade of EX or F will be assigned.
November 17	Monday	Last day a student may withdraw from school. Instructors' and Dean's approvals are required. Grades of EX or F will be assigned for each course.
November 22	Saturday	Fall Break (Thanksgiving holiday) Begins 5:00 p.m.
December 1	Monday	Classes Resume, 8:00 a.m.
December 13	Saturday	Classes End, 5:00 p.m.
December 15	Monday	Final Examinations Begin
December 20	Saturday	Fall Semester Closes, end of day
December 20	Saturday	Fall Commencement

### Winter Intersession - 2015

Date	Weekday	Event
January 5	Monday	Classes Begin, 8:00 a.m.
January 5	Monday	Last day to add a Winter Intersession course
January 7	Wednesday	Last day to drop a Winter Intersession course without receiving a grade
January 7	Wednesday	Last day to place a Winter Intersession course on Satisfactory/Unsatisfactory basis
January 14	Wednesday	Last day to drop a Winter Intersession with a grade of EX or F
January 17	Saturday	Classes End, 5:00 p.m.

### Spring Semester - 2015

Date	Weekday	Event
January 19	Monday	Martin Luther King Holiday
January 20	Tuesday	Classes Begin, 8:00 a.m.

January 26	Monday	Last day Registrar's Office will automatically move students from the wait list to open sections
January 26	Monday	Last day any student may enroll (enter a course for credit)
February 16	Monday	Last day to drop a course or withdraw from school without receiving a grade
February 16	Monday	Last day any student may place a course on Satisfactory/Unsatisfactory basis
March 21	Saturday	Spring Recess Begins, 5:00 p.m.
March 30	Monday	Classes Resume, 8:00 a.m.
April 20	Monday	Last day student may drop a course. Instructor's approval is required. A grade of EX or F will be assigned.
April 20	Monday	Last day a student may withdraw from school. Instructors' and Deans' approvals are required. Grades of EX or F will be assigned for each course.
May 9	Saturday	Classes End, 5:00 p.m.
May 11	Monday	Final Examinations Begin
May 16	Saturday	Spring Semester Closes, end of day
May 16	Saturday	Spring Commencement
May 17	Sunday	Spring Commencement

### Summer Sessions - 2015

#### Summer Session I (4 Weeks)

Date	Weekday	Event
May 18	Monday	Classes Begin, 8:00 a.m.
May 20	Wednesday	Last day any student may enroll (enter a course for credit) for Session I
May 20	Wednesday	Last day Registrar's Office will move students automatically from the wait list to open sections
May 23	Saturday	Last day to drop a Session I course without receiving a grade
May 25	Monday	Memorial Day Holiday
May 26	Tuesday	Classes Resume, 8:00 a.m.
June 8	Monday	Last day a student may drop or withdraw from a Session I course with a grade
June 13	Saturday	Session Closes, End of Day

#### Summer Session II (4 Weeks)

Date	Weekday	Event
June 15	Monday	8:00 a.m.
June 17	Wednesday	Last day any student may enroll (enter a course for credit) for Session II
June 17	Wednesday	Last day Registrar's Office will move students automatically from the wait list to open sections
June 20	Saturday	Last day to drop a Session II course without receiving a grade
June 20	Saturday	Last day a student may place a Session II course on Satisfactory/Unsatisfactory basis
July 3	Friday	Independence Day Holiday
July 6	Monday	Classes Resume

July 6	Monday	Last day a student may drop or withdraw from a Session II course with a grade
July 11	Saturday	Session Closes, End of Day

### Summer Session III (4 Weeks)

Date	Weekday	Event
July 13	Monday	Classes Begin, 8:00 a.m.
July 15	Wednesday	Last day any student may enroll (enter a course for credit) for Session III
July 15	Wednesday	Last day Registrar's Office will move students automatically from the wait list to open sections
July 18	Saturday	Last day to drop a Session III course without receiving a grade
July 18	Saturday	Last day a student may place a Session III course on Satisfactory/Unsatisfactory basis
August 1	Saturday	Last day a student may drop or withdraw from a Session III course with a grade
August 8	Saturday	Session Closes, end of day

**Final examinations are held during the last class meeting of Summer Sessions I, II, and III.**

### Summer Session IV (8 Weeks)

Date	Weekday	Event
May 18	Monday	Classes Begin, 8:00 a.m.
May 21	Thursday	Last day any student may enroll (enter a course for credit) for Session IV
May 21	Thursday	Last day Registrar's Office will move students automatically from the wait list to open sections
May 25	Monday	Memorial Day Holiday
May 26	Tuesday	Classes Resume, 8:00 a.m.
June 1	Monday	Last day to drop a Session IV course without receiving a grade
June 1	Monday	Last day a student may place a Session IV course on Satisfactory/Unsatisfactory basis
June 29	Monday	Last day a student may drop or withdraw from a Session IV course with a grade
July 3	Friday	Independence Day Holiday
July 6	Monday	Classes Resume, 8:00 a.m.
July 8	Wednesday	Final Examinations Begin
July 11	Saturday	Session Closes, end of day

### Summer Session V (8 Weeks)

Date	Weekday	Event
June 15	Monday	Classes Begin, 8:00 a.m.
June 18	Thursday	Last day any student may enroll (enter a course for credit) for Session V
June 18	Thursday	Last day Registrar's Office will move students automatically from the wait list to open sections
June 27	Saturday	Last day to drop a Session V course without receiving a grade

June 27	Thursday	Last day to drop a Session V course without receiving a grade
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July 3	Friday	Independence Day Holiday
July 6	Monday	Classes Resume, 8:00 a.m.
July 27	Monday	Last day a student may drop or withdraw from a Session V course with a grade
August 5	Wednesday	Final Examinations Begin
August 8	Saturday	Session Closes, end of day

### Summer Session VI (12 Weeks)

Date	Weekday	Event
May 18	Monday	Classes Begin, 8:00 a.m.
May 23	Saturday	Last day any student may enroll (enter a course for credit) for Session VI
May 23	Saturday	Last day Registrar's Office will move students automatically from the wait list to open sections
May 25	Monday	Memorial Day Holiday
May 26	Tuesday	Classes Resume, 8:00 a.m.
June 8	Monday	Last day to drop a Session VI course without receiving a grade
June 8	Monday	Last day a student may place a Session VI course on Satisfactory/Unsatisfactory basis
July 3	Friday	Independence Day Holiday
July 6	Monday	Classes Resume, 8:00 a.m.
July 21	Tuesday	Last day a student may drop or withdraw from a Session VI course with a grade
August 5	Wednesday	Final Examinations Begin
August 8	Saturday	Session Closes, end of day
August 8	Saturday	Summer Commencement

# Degree Programs

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## Undergraduate Degrees (Majors)

Programs	Degree(s)	Emphasis Area(s)
Accounting	BS (p. 253)	
Anthropology	BA (p. 42)	
Art History	BA (p. 347)	
Biochemistry and Biotechnology	BS (p. 72)	
Biology	BA (p. 86), BS (p. 86)	Cellular and Molecular Biology; Ecology, Evolution and Systematics
Business Administration	BSBA (p. 254)	Finance; International Business; Logistics and Operations Management; Marketing
Chemistry	BA (p. 108), BS (p. 108)	
Civil Engineering	BSCE (p. 460)	Construction Engineering; Environmental Engineering Science
Communication	BA (p. 365)	
Computer Science	BS (p. 183)	
Criminology and Criminal Justice	BS (p. 120)	
Dance	BA ( <a href="http://bulletin.umsl.edu/collegeoffineart/dance/#undergraduate">http://bulletin.umsl.edu/collegeoffineart/dance/#undergraduate</a> )	Degree offered in combination with Theatre
Early Childhood Education	BSED ( <a href="http://bulletin.umsl.edu/collegeofeducation/epir/undergraduatestudy/#earlychildhoodeducationtext">http://bulletin.umsl.edu/collegeofeducation/epir/undergraduatestudy/#earlychildhoodeducationtext</a> )	
Economics	BA (p. 126), BS (p. 126)	
Educational Studies	BES ( <a href="http://bulletin.umsl.edu/collegeofeducation/epir/undergraduatestudy/#bachelorofeducationalstudies">http://bulletin.umsl.edu/collegeofeducation/epir/undergraduatestudy/#bachelorofeducationalstudies</a> )	Early Childhood; Exercise Science; Professional Education Studies
Electrical Engineering	BSEE (p. 460)	
Elementary Education	BSED ( <a href="http://bulletin.umsl.edu/collegeofeducation/epir/undergraduatestudy/#elementaryeducationtext">http://bulletin.umsl.edu/collegeofeducation/epir/undergraduatestudy/#elementaryeducationtext</a> )	Middle School Education; Special Education; Special Education and Teaching English to Speakers of Other Languages; Teaching English to Speakers of Other Languages
English	BA (p. 136)	
History	BA (p. 155)	
Information Systems	BS (p. 256)	
Interdisciplinary Studies	BIS (p. 169)	
Liberal Studies	BLS (p. 169)	



Mathematics	BA (p. 183), BS (p. 183)	
Mechanical Engineering	BSME (p. 460)	
Media Studies	BS ( <a href="http://bulletin.umsl.edu/collegeoffineartsandcommunication/mediastudies/#undergraduatetext">http://bulletin.umsl.edu/collegeoffineartsandcommunication/mediastudies/#undergraduatetext</a> )	
Modern Language	BA (p. 50)	French, German, Japanese, Spanish
Music	BA (p. 371), BM (p. 371)	Elective Studies in Bus (BM only); Performance (BM only); Music Education (BM only); Theory/Composition (BM only)
Nursing	BSN (p. 388)	
Philosophy	BA (p. 197)	Pre-Law, Science Studies, Psychology and Neuroscience, Ethics and Society, Health Sciences, History
Physical education	BSED ( <a href="http://bulletin.umsl.edu/collegeofeducation/epir/undergraduate:#artmusicphysi">http://bulletin.umsl.edu/collegeofeducation/epir/undergraduate:#artmusicphysi</a> )	PK-9; PK-12
Physics	BA (p. 209), BS (p. 209)	Astrophysics (BS only); Engineering Physics (BS only); General Physics (BS only); Medical Physics (BS only)
Political Science	BA (p. 219)	
Psychology	BA (p. 238)	
Public Policy and Administration	BSPPA (p. )	
Secondary Education	BSED ( <a href="http://bulletin.umsl.edu/collegeofeducation/epir/undergraduatestudy/#secondaryeducationtext">http://bulletin.umsl.edu/collegeofeducation/epir/undergraduatestudy/#secondaryeducationtext</a> )	English; Mathematics; Modern Foreign Language-French; Modern Foreign Language-German; Modern Foreign Language-Spanish; Modern Foreign Language-Japanese; Music; Science-Biology; Science-Chemistry; Science-Physics; Social Studies-Economics; Social Studies-History; Social Studies-Politics; Social Studies-Psychology; Social Studies-Sociology
Social Work	BSW (p. 449)	
Sociology	BA (p. 65), BS (p. 65)	
Studio Art	BFA (p. 348)	Drawing; General Fine Arts; Graphic Design; Photography; Painting; Printmaking; Art Education
Theatre	BA ( <a href="http://bulletin.umsl.edu/collegeoffineartsandcommunication/theatre/#undergraduatetext">http://bulletin.umsl.edu/collegeoffineartsandcommunication/theatre/#undergraduatetext</a> )	Degree offered in combination with Dance

## Undergraduate Minors

Not all minors are appropriate to all degrees, however; please check with your advisor before selecting a minor or certificate.

- Accounting (p. 257)
- African/African American Studies
- American Politics
- American Studies
- Anthropology (p. 42)
- Athletic Coaching
- Biology (p. 86)
- Business Administration (p. 257)
- Chemistry (p. 108)



- Child Advocacy Studies (p. 169)
- Classical Studies (p. 50)
- Communication (p. 365)
- Comparative Politics
- Computer Science (p. 183)
- Criminology and Criminal Justice (p. 120)
- Dance (<http://bulletin.umsl.edu/collegeoffineartsandcommunication/dance>) (Minor offered in combination with Theatre)
- Economics (p. 126)
- English (p. 136)
- Environmental Studies
- Finance (p. 257)
- French (p. 50)
- Gender Studies (p. 149)
- General Business (p. 257)
- German (p. 50)
- History (p. 155)
- History of Science and Technology (p. 155)
- Information Systems (p. 257)
- International Business (p. 257)
- International Relations
- Japanese (p. 50)
- Jazz Studies
- Legal Studies
- Literacy (<http://bulletin.umsl.edu/collegeofeducation/epir/undergraduatetestudy/#newitemtext>)
- Logistics and Operations Management (p. 257)
- Management (p. 257)
- Marketing (p. 257)
- Mathematics (p. 183)
- Mathematics Education K-5
- Media Studies (<http://bulletin.umsl.edu/collegeoffineartsandcommunication/mediastudies/#undergraduatetext>)
- Military History and Logistics (<http://bulletin.umsl.edu/artsandsciences/militaryveteransstudies/#veteranstudiesetext>)
- Modern Language (p. 50)
- Music (p. 371)
- Nonprofit Administration (p. 219)
- Philosophy (p. 197)
- Philosophy of Science and Technology
- Physics
- Political Science
- Political Theory (p. 219)
- Psychology (p. 238)
- Public Administration (p. 219)
- Public Affairs Journalism
- Public Law (p. 219)
- Public Policy (p. 219)
- Social Work
- Sociology
- Spanish
- Statistics
- Studio Art
- Teaching English to Speakers of Other Languages K-12
- Theatre (<http://bulletin.umsl.edu/collegeoffineartsandcommunication/theatre/#undergraduatetestudytext>) (Minor offered in combination with Dance)
- Transportation Studies (p. 257)

- Urban Education P-5
- Urban Politics (p. 219)
- Urban Studies
- Veterans Studies
- Women and Politics (p. 219)

## Undergraduate Certificates

- Post-Baccalaureate Certificate in Accounting
- Actuarial Studies
- Advertising
- African Studies
- Applied Econometrics and Data Analysis (p. 126)
- Archaeology (p. 42)
- Biochemistry
- Biotechnology
- Conservation Biology
- Child Advocacy Studies (pending CBHE approval)
- Creative Writing
- East Asian Studies
- Evolutionary Studies (p. 169)
- Film Studies
- Gender Studies
- Gerontological Studies
- Greek Studies
- History and Philosophy of Science and Technology
- Honors College
- International Business
- Labor Studies
- Latin American Studies
- Modern European Studies
- Neuroscience
- Photographic Studies
- Public Relations
- Studies in Religions
- Trauma Studies
- Women, Political Leadership and Public Policy (p. 219)
- Professional Writing

## Other Instructional Areas

In addition to the degrees, minors, certificates and emphasis areas above, many departments offer specializations in several subject areas , including the following:

- Arabic
- Archaeology
- Astronomy
- Atmospheric Science
- Chinese
- Ensemble Performance
- Geology
- Literature
- Medical Physics
- Pre-Engineering
- Pre-Health Sciences

- Pre-Law
- Pre-Veterinary Science
- Public Relations
- Reserve Officer Training Corps

## Graduate Degrees

Programs	Degree(s)	Emphasis Area(s)
Accounting	MACC (p. 283)	
Adult and Higher Education	MED (p. 330)	Adult Education; Higher Education
Applied Mathematics	PHD (p. 186)	Computer Science; Mathematics
Biochemistry and Biotechnology	MS (p. 112)	Professional Science (pending CBHE approval)
Biology	MS (p. 94), PHD (p. 94)	Cellular and Molecular Biology; Ecology, Evolution and Systematics; Professional Science (pending CBHE approval)
Business Administration	MBA (p. 283), PHD (p. 287)	Accounting; Finance; Information Systems; International Business; Logistics & Supply Chain Management; Management; Marketing; Operations Management
Chemistry	MS (p. 112), PHD (p. 112)	Biochemistry; Inorganic; Organic; Physical; Professional Science (pending CBHE approval)
Communication	MA (p. 366)	
Computer Science	MS (p. 186)	
Counseling	MED (p. 323)	Clinical Mental Health Counseling; Elementary; Secondary
Creative Writing	MFA (p. 141)	
Criminology and Criminal Justice	MA (p. 121), PHD (p. 121)	
Economics	MA (p. 129)	Business Economics; General Economics
Education	EDD (p. 315), PHD (p. 315)	Adult & Higher Education; Counselor Education; Educational Administration; Teaching-Learning Processes
Educational Administration	EDS (p. 330), MED (p. 330),	Community Education; Elementary Administration; Secondary Administration;
Educational Psychology	MED (p. 338)	Character Education and Citizenship Education; Educational Research and Program Evaluation
Elementary Education	MED ( <a href="http://bulletin.umsl.edu/collegeofeducation/epir/graduatestudy/#elementaryeducationtext">http://bulletin.umsl.edu/collegeofeducation/epir/graduatestudy/#elementaryeducationtext</a> )	General; Early Childhood; Reading
English	MA (p. 141)	Literature; Writing Studies
Gerontology	MS (p. 444)	
History	MA (p. 158)	Museum Studies
Information Systems	MS (p. 287)	
Mathematics	MA (p. 186)	
Music Education	MME (p. 376)	

Nursing	MSN (p. 403), DNP (p. 406), PHD (p. 406)	Adult Nurse Practitioner; Family Nurse Practitioner; Neonatal Nurse Practitioner; Nurse Educator; Nurse Leader; Pediatric Nurse Practitioner; Psychiatric-Mental Health (pending CBHE approval); Women's Health Nurse Practitioner
Philosophy	MA (p. 201)	
Physics	MS (p. 213), PhD (p. 213)	Applied Physics; Astrophysics
Political Science	MA (p. 226), PHD (p. 226)	American Politics; Comparative Politics; International Politics; Political Process and Behavior; Public Admin and Public Policy; Urban and Regional Politics
Psychology	MA (p. 240), PHD (p. 240)	Behavioral Neuroscience; Clinical-Community Psychology (PhD only); Industrial and Organizational Psychology
Public Policy and Administration	MPPA (p. 430)	Health Policy; Local Government Mgmt; Managing Human Resources and Organization; Nonprofit Organization Mgmt; Policy Research and Analysis
School Psychology	EDS (p. 338)	
Secondary Education	MED ( <a href="http://bulletin.umsl.edu/collegeofeducation/epir/graduatestudy/#elementaryeducationtext">http://bulletin.umsl.edu/collegeofeducation/epir/graduatestudy/#elementaryeducationtext</a> )	General; Curriculum and Instruction; Middle Level Education; Reading; Teaching English to Speakers of Other Languages
Social Work	MSW (p. 450)	
Special Education	MED ( <a href="http://bulletin.umsl.edu/collegeofeducation/epir/graduatestudy/#specialeducationtext">http://bulletin.umsl.edu/collegeofeducation/epir/graduatestudy/#specialeducationtext</a> )	Early Childhood Special Education; Autism and Developmental Disabilities; Cross Categorical Disabilities

## Professional Degree

Optometry OD (p. 417)

## Graduate Certificates

- ACP Instructional Communication
- Autism Studies
- Biotechnology
- Business Administration
- Business Intelligence
- Community College Leadership
- Digital and Social Media Marketing (p. 289) (pending CBHE approval)
- Gender Studies
- Gerontology
- History Education
- Human Resource Management
- Institutional Research
- International Studies
- Local Government Management
- Logistics and Supply Chain Management
- Marketing Management
- Museum Studies
- Non Profit Organization Management and Leadership

- Policy and Program Evaluation (p. 430) (pending CBHE approval)
- Post MSN Adult-Geriatric Nurse Practitioner
- Post-MSN Advanced Nursing Practice with Educator Functional Role (p. 404) (pending CBHE approval)
- Post MSN Family Nurse Practitioner
- Post MSN Pediatric Nurse Practitioner
- Post MSN Psychiatric-Mental Health Nurse Practitioner (p. 404) (pending CBHE approval)
- Post MSN Women's Health Nurse Practitioner (p. 404)
- Program Evaluation and Assessment (p. 338)
- Psychology - Clinical Re-specialization
- Public History and Cultural Heritage (p. 158)
- Secondary School Teaching
- Student Affairs Administration and Leadership (p. 330)
- Teaching English to Speakers of Other Languages
- Teaching of Writing
- Trauma Studies
- Tropical Biology and Conservation

# General Regulations

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## Courses

### Course Numbering

Each course bears a distinguishing number that identifies it within the department or academic unit and indicates, broadly, the expected level of students taking the course. To understand the course level, refer to the following guidelines:

### Course Numbers

Explanation

1-999

Courses that do not count toward the minimum requirements for any degree.

### Lower Division:

1000-1999

Courses open to undergraduate students, primarily focused toward freshmen; courses count toward the minimum for given degrees.

2000-2999

Courses open to undergraduate students, primarily focused toward sophomores; courses count toward the minimum for given degrees

### Upper Division:

3000-3999

Courses open to undergraduate students, primarily focused toward junior; courses count toward the minimum for given degrees.

4000-4999

Courses open to undergraduate and graduate students, primarily focused toward seniors; courses count toward the minimum for given undergraduate degrees; depending on the specific program, courses may count for a given graduate degree.

### Graduate:

5000-5999

Graduate courses; also open to post-baccalaureate educator certification candidates and undergraduate seniors with permission from the Dean of the Graduate School. Courses count toward the minimum for given graduate degrees.

6000-6999

Graduate courses open to master's degree and doctoral students. Courses count toward the minimum for given graduate degrees.

7000-7999

Graduate courses open to doctoral students and master's degree students with special permission. Courses count toward the minimum for specific graduate degrees.

### Optometry:

8000-8999

Courses open to optometry degree seeking students.

### Credit Hours

The university credit unit is the semester hour, which represents a subject pursued one period weekly for one semester of approximately 16 weeks or for a total of approximately 16 periods for one term. Generally, a course valued at three semester hours meets for three periods weekly for one semester, a twocredit course two periods a week for a semester, and so on. Normally, the lecture or recitation period is 50 minutes long and the laboratory period one hour and 50 minutes.

The number of credit hours is listed as units in the online Schedule of Courses. If the credit is variable (to be determined in consultation with the instructor) it is shown by minimum and maximum units, such as Research 1 – 3 units. In the Bulletin, credit hours are included in parentheses after each course title e.g., Research (2-8).

### Examinations

Examinations may be given only at regular class meeting times or as designated by the Senate Committee on Curriculum and Instruction.

### Final Examinations.

The period designated for final examinations is an important component of the academic term. It provides faculty with a final opportunity to evaluate student learning and attainment of course objectives. Faculty members are encouraged to meet with students during the final examination period.

A faculty member who gives an in-class final examination may give this examination only on the day and at the time designated in the official final examination schedule. A majority vote of the students to the contrary does not change this policy.

A student may submit a written request for a change in the scheduled time of the final examination for a limited number of documented hardship reasons. These reasons include, but are not limited to, being scheduled to take more than two examinations on the same day, illness, military obligations, and religious practices. Except for emergencies, this request should be presented directly to the instructor at least two weeks before classes conclude. If the request is denied, the student may request additional consideration from the chairperson/area coordinator/program director and, if denied, to the dean of the college sponsoring the course.

### Repeating Courses.

Students may not repeat for grade point average or credit hour purposes courses in which grades of A, A B+, B, B-, C+, or C have been earned. Subsequent grades in such a course that is repeated will not be included in the GPA calculations. The course hours will be counted only once in calculating hours toward a degree.

## Enrollment and Graduation Policies

### Course Schedules

The Schedule of Courses contains the specific courses offered each semester with their meeting times and locations. This schedule is available online

Course schedules are generally published in mid-March for the fall semester, mid-October for the spring semester, and mid-January for the summer semester.

The university reserves the right to cancel without notice any course listed in the Bulletin or the Schedule of Courses for any semester or to withdraw any course that does not have adequate enrollment.

### **Prerequisites for a Course**

Students are expected to review all courses when registering for them to assure that they meet all prerequisites. When the prerequisites include courses, a minimum grade of C- is required to meet the prerequisite. Only the department offering the course with the prerequisite can make an exception to this requirement. A course with an "academic standing" prerequisite--for example, "senior standing"-- requires that students have the class standing stated, in the example, only seniors can take that class.

### **Attendance**

Students are expected to attend class regularly, and, in accordance with the UMMSL Bylaws, faculty may establish penalties for excessive absences. Students absent for more than three successive classes may be reported to the dean. Students should tell their dean's office of an extended absence. An absence known in advance should be reported to the instructors of courses that will be missed. Makeup of examinations or work missed is allowed at the instructor's discretion. Students excused from class for valid reasons by their deans shall be permitted, if possible, to make up work missed; the dean must have notified the instructor in writing.

### **Section Changing**

Section changing is normally completed during the first week of a regular semester, the first four days of an eight-week session and the first three days of a four-week session. Approvals may not be necessary during this time. However, after the first week of a regular semester, the first four days of an eight-week session, and the first three days of a four-week session, a section change form must be obtained from the department or dean's office. The signature of both instructors is required. The form is to be submitted to the Registration Office, 351 Millennium Student Center.

### **Registration**

Newly admitted/re-admitted students are eligible to register after the close of the pre-registration period. Enrollment dates, Semester Calendars, and courses offerings can be found online at the Registration website.

### **Registering for Classes: Former Students**

Former UMMSL students who have not been enrolled for a year must submit a reenrollment application available in the Admission's Office.

### **Registering for Classes: Currently Enrolled Students**

Currently enrolled students are given the opportunity to preregister, by appointment, before new or returning students. Pre-registration appointment times are sent to students' university email and can also be found by logging into MyView.

### **Auditor**

Students may enroll as auditors in any course with the prior consent of the instructor and dean of the college in which the auditors desire to be registered. They may be dropped from the course when, in the judgment

of the instructor and dean, their record justifies such action. Auditors are charged full fees and receive no academic credit.

### **Registration Cancellation**

Students who have enrolled and paid their fees but do not wish to attend the university may cancel their registration any time before the first day of the semester. Cancellations may be processed at the Office of the Registrar or by logging into MyView and dropping all classes. The refund schedule for cancellation of registration after class work begins can be found on the Cashier's Office website.

### **Fee Assessment**

Fees for coursework vary due to the student's residency standing, undergraduate, graduate or post-graduate status, credit hours, and the applicability of any course fees charged to specific courses or programs. Detailed Information on tuition and fee rates and residency status can be found on the Cashier's website (<http://www.umsl.edu/cashiers>).

### **Financial Responsibility**

A Financial Responsibility agreement (<http://www.umsl.edu/cashiers/student-parent/student-responsibility.html>) will be presented to all students once per academic year. The agreement explains the billing methods, payment options and all policies related to student accounts. It is the responsibility of the student that fees and other financial obligations are paid as they become due regardless of who is making the payments. Students who need assistance in meeting financial obligations to the university should contact the Financial Aid Office in a timely manner. Students are expected to adhere to important dates and policies that impact fees. Due dates and fee reassessment dates are posted on the Cashier's website (<http://www.umsl.edu/cashiers>) and through links on the eBill website (<http://www.umsl.edu/cashiers/billing-payment/view-pay.html>). The non-payment of any financial obligation may result in additional collection fees, the inability to register and the withholding of student records.

### **Billing**

The Cashier's Office bills you by posting a monthly student account billing statement on eBill around the 10th of any month in which there's a new charge or credit on your account. The Cashier's Office will send you and your authorized payer (if any) a billing notification email reminder to check your statement and pay any balance due. The mail.umsl.edu email address will be used for students and the authorized payers email address will be used for authorized payers.

### **Payment of Fees**

Payments are due on the first day of each month. The minimum payment can be found at the top of the monthly billing statement or by checking the percentage due as shown in the billing schedules (<http://www.umsl.edu/cashiers/billing-payment/billing-schedules.html>) on the Cashier's website. If a student chooses to make the minimum payment or a partial payment, a finance charge of 1% will be assessed on the unpaid billed balance. The monthly 1% finance charge can be avoided by paying the balance in full. A \$10 late payment fee will be charged to student accounts which have been billed and not paid by the due date.

All fees, fines, bookstore charges, etc. must be paid by the last day of the term. After the term ends, unpaid accounts will be turned over to an outside collection agency. Collection agency fees of up to 50% of the unpaid account balance will be added to the student's account. Student



accounts must be paid in full before a student will be permitted to register for upcoming semesters or receive transcripts or a diploma.

## Payment Options

**Online** – Log on to the MyView (<https://myview.umsl.edu/psprd/?cmd=login&languageCd=ENG&>) student system to make payment using a personal checking or savings account or a Visa, MasterCard, Discover or American Express credit card. (2.75% service fee applied to credit card payments).

**Mail** – Send your check or money order to the Cashier's Office at: University of Missouri - St. Louis 285 Millennium Student Center (MC 212) One University Blvd. St. Louis, MO 63121-4400. Include student name and student number on the check or money order.

**In person** – Visit the Cashier's Office on the second floor of the Millennium Student Center in room 285. Payment in cash, check, money order or pin based MasterCard or VISA debit are accepted at the cashier stations. Credit card payments cannot be processed at the cashier stations, but are accepted online from <http://ebill.umsl.edu>.

**Self Service Kiosks** – Payment from a personal checking or savings account or by Visa, MasterCard, Discover, or American Express credit card can be made at any of the four kiosks located in the MSC. (2.75% service fee applied to credit card payments).

**Payment Drop Box** – A secure payment drop box is situated just outside the Cashier's Office, room 285 of the Millennium Student Center. Only check or money order payments, please.

Any communications concerning disputed debts, including instruments tendered as full satisfaction of debt, must be sent to Account Disputes, 1 University Blvd., 289 Millennium Student Center, St. Louis, MO 63121-4400.

Any check presented to the university for payment that is returned unpaid will be assessed a \$20.00 returned check fee in addition to any fees that the bank may charge.

**ERDPP** – Employer Reimbursement Deferred Payment Program (<http://www.umsl.edu/cashiers/tuition-fees/erdpp.html>). Many companies offer tuition reimbursement to their employees. While the student is ultimately responsible for the payment of their tuition and fees, the Cashier's Office offers the ERDPP program to allow a student to take advantage of this employer benefit by deferring payment of all, or a portion, of their tuition and related costs. There is a \$50.00 application fee each semester.

**Financial Aid** – If you have applied for financial aid in advance and have received an award letter, your letter describes how much of your award will be paid towards your student fees. If your financial aid does not cover all the fees, then you must pay the remainder of your student fees yourself by the due date. Financial aid that has not yet been disbursed will appear on your monthly billing statement as "Anticipated Aid". Your statement will reflect Anticipated Aid as being deducted from your Account Balance giving you an Adjusted Amount Due. Your Minimum Payment is a percentage of the Adjusted Amount Due. Students should pay either the Adjusted Amount Due or the Minimum Payment by the due date to avoid a \$10 late payment fee.

**Third Party Sponsor** – When an organization makes a commitment to pay your educational expenses, they are considered a Third Party Sponsor (<http://www.umsl.edu/cashiers/billing-payment/explanations/third-party.html>). If you are expecting a third party sponsor to pay your tuition and fees, you will need to have your sponsor submit a letter of

authorization to the Cashier's Office. Once the sponsor's letter is received, a credit for the amount the sponsor has indicated will be applied to your student account. An invoice for this amount will then be sent to your sponsor. You are responsible for paying any charges not covered by your sponsor on time, to avoid finance and late charges or other penalties. If your sponsor ends up not paying for the charges they authorized, the responsibility of paying those charges defaults back to you.

## Refunds

A credit balance is the result of an overpayment on a student's account from Financial Aid, loans or payments received. Credit balance refunds will be processed when a credit actually exists on the student's account. Anticipated Financial Aid must be received and posted to the student's account in order for a credit to exist and for a refund to be processed.

When financial aid funds are received by the University, the funds are applied to the students account. During the Fall and Spring semesters, financial aid funds are applied to student accounts no sooner than ten days prior to the start of classes. During the Summer semester, financial aid funds are applied to student accounts no sooner than the day the student is actually taking the course(s) that have the hours required to receive the aid. If the student has a credit balance after financial aid funds have paid all account charges in full, the student is now eligible for a refund.

**Parent-Plus Loan Refund** - If you have any funds available after what is owed directly to the University, the refund may be released to the parent at the address listed on the PLUS Loan Application. Refunds from proceeds of PLUS will be issued to the student only if the parent requests that on the PLUS application.

**Credit Card Refund** - If a credit card payment has been made towards your student account in the past 120 days, any refund due to you will be returned to that credit card.

**Drop/Withdrawal Refund** – Students who are leaving school or dropping classes are responsible for canceling their registration and verifying that their classes have been dropped. Any refunding of fees will be made according to the reassessment schedule available on the Cashier's website. Fees reassessed may include Tuition and Course/Supplemental fees (if applicable). The Spring and Fall reassessment schedules only apply to regular 16 week session courses. The Summer reassessment schedules only apply to regular 4 week, 8 week and 12 week session courses. Fee reassessment for courses not in regular sessions will be based on the course's total number of calendar days (weekends and holidays included) and the number of calendar days that the student was enrolled in the course. If the meeting dates for your course are different from the regular session meeting dates, please contact the Cashier's Office as your fee reassessment for withdrawal or dropping may differ from the regular reassessment.

The refund process requires two to four weeks processing time after withdrawal or dropped classes. When a student completely withdraws from a semester and was receiving federal financial aid, the University and/or the student may be required to return some of the financial aid, awarded to the student.

Charges that students accrue prior to a refund being issued will be deducted from the refund amount. Charges that are accrued after a refund is issued will be billed to the student on the monthly billing statement. As student accounts go into credit balance, the Cashier's office processes refunds to students by checks through the mail and by direct deposit to students personal checking or savings accounts. Students should allow

7-10 business days from the day that the refund is processed to receive a refund check in the mail. For students that have direct deposit, please allow 3-5 business days from the day that the refund is processed to receive the refund in your bank account.

## Cancellation of Registration Due to Nonpayment of Fees

The university will attempt to notify any student whose registration is about to be administratively canceled for nonpayment of fees prior to taking this action.

On or before the last day on which a student may enroll in a course, a cancelled student's space in a course will be given to other students on that course's wait lists. The canceled student will be placed at the end of the course wait list.

Any student who has been administratively canceled for nonpayment of assessed fees may not enroll in a class unless the required fees have been paid.

Cancelled students who re-register on or after the first day of the semester will be assessed an additional nonrefundable late registration charge.

## Fees May Change Without Notice

The university reserves the right to modify by increase or decrease the fees charged for attendance and other services at the university, including but not limited to tuition or educational fees, at any time when in the discretion of the governing board the same is in the best interest of the University, provided that no increases can or will be effective unless approved by the governing board not less than thirty (30) days prior to the beginning of the academic term (semester, etc.) to which the fees are applicable, with all modification of fees to be effective irrespective as to whether fees have or have not been paid by or on behalf of a student prior to the effective date of the modification.

By registering for a class at any University of Missouri campus, students agree to abide by the Code of Student Conduct below. For more information about student conduct contact Student Conduct and Community Standards in the Office of Student Affairs (301 Woods Hall; 314-516-5211).

## Code of Student Conduct

**200.010 Standard of Conduct Amended March 20, 1981; August 3, 1990; May 19, 1994; May 24, 2001; July 27, 2012** ([http://www.umsystem.edu/ums/rules/collected\\_rules/programs/ch200](http://www.umsystem.edu/ums/rules/collected_rules/programs/ch200))

A student enrolling in the University assumes an obligation to behave in a manner compatible with the University's function as an educational institution and voluntarily enters into a community of high achieving scholars. Consequently, students assume new privileges along with new responsibilities in accordance with the University's mission and expectations.

These expectations have been established in order to protect a specialized environment conducive to learning which fosters integrity, academic success, personal and professional growth, and responsible citizenship.

1. Jurisdiction of the University of Missouri generally shall be limited to conduct which occurs on the University of Missouri premises or at University-sponsored or University-supervised functions. However, nothing restrains the administration of the University of Missouri from taking appropriate action, including, but not limited to, the imposition

of sanctions under Section 200.020(C), against students for conduct on or off University premises in order to protect the physical safety of students, faculty, staff, and visitors.

2. Conduct for which students are subject to sanctions falls into the following categories:
  - a. Academic dishonesty, such as cheating, plagiarism, or sabotage. The Board of Curators recognizes that academic honesty is essential for the intellectual life of the University. Faculty members have a special obligation to expect high standards of academic honesty in all student work. Students have a special obligation to adhere to such standards. In all cases of academic dishonesty, the instructor shall make an academic judgment about the student's grade on that work and in that course. The instructor shall report the alleged academic dishonesty to the Primary Administrative Officer.
    - i The term cheating includes but is not limited to: (i) use of any unauthorized assistance in taking quizzes, tests, or examinations; (ii) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (iii) acquisition or possession without permission of tests or other academic material belonging to a member of the University faculty or staff; or (iv) knowingly providing any unauthorized assistance to another student on quizzes, tests, or examinations.
    - ii The term plagiarism includes, but is not limited to: (i) use by paraphrase or direct quotation of the published or unpublished work of another person without fully and properly crediting the author with footnotes, citations or bibliographical reference; (ii) unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials; or (iii) unacknowledged use of original work/material that has been produced through collaboration with others without release in writing from collaborators.
    - iii The term sabotage includes, but is not limited to, the unauthorized interference with, modification of, or destruction of the work or intellectual property of another member of the University community.
  - b. Forgery, alteration, or misuse of University documents, records or identification, or knowingly furnishing false information to the University.
  - c. Obstruction or disruption of teaching, research, administration, conduct proceedings, or other University activities, including its public service functions on or off campus.
  - d. Physical abuse, threats of violence, or other conduct which threatens or endangers the health or safety of any person.
  - e. Nonconsensual sexual behavior including but not limited to rape; sexual assault; nonconsensual sexual touching of the genitals, breast or anus of another person or the touching of another with one's own genitals whether directly or through the clothing; or exposing one's genitals to another under circumstances in which he or she should reasonably know that his or her conduct is likely to cause affront or alarm, or sexual harassment.
  - f. Stalking another by following or engaging in a course of conduct with no legitimate purpose that puts another person reasonably in fear for his or her safety or would cause a reasonable person under the circumstances to be frightened, intimidated or emotionally distressed.

- g. Harassment by engaging in a course of conduct directed at a specific person that serves no legitimate purpose that would cause a reasonable person under the circumstances to be frightened, intimidated, or emotionally distressed.
  - h. Invasion of privacy by photographing or recording (using electronic or other means) another person in a state of full or partial nudity in a place where one would have a reasonable expectation of privacy without that person's consent, and distributing or transmitting that image without that person's consent.
  - i. Participating in attempted or actual theft of, damage to, or possession without permission of property of the University or of a member of the University community or of a campus visitor.
  - j. Unauthorized possession, duplication or use of keys to any University facilities or unauthorized entry to or use of University facilities.
  - k. Violation of University policies, rules or regulations or of campus regulations including, but not limited to, those governing residence in University-provided housing, or the use of University facilities, or the time, place and manner of public expression.
  - l. Manufacture, use, possession, sale or distribution of alcoholic beverages or any controlled substance without proper prescription or required license or as expressly permitted by law or University regulations, including operating a vehicle on University property, or on streets or roadways adjacent to and abutting a campus, under the influence of alcohol or a controlled substance as prohibited by law of the state of Missouri.
  - m. Disruptive or disorderly conduct or lewd, indecent, or obscene conduct or expression.
  - n. Failure to comply with directions of University officials acting in the performance of their duties.
  - o. The illegal or unauthorized possession or use of firearms, explosives, other weapons, or hazardous chemicals.
  - p. Misuse in accordance with University policy of computing resources, including but not limited to:
    - i. Actual or attempted theft or other abuse.
    - ii. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
    - iii. Unauthorized transfer of a file.
    - iv. Unauthorized use of another individual's identification and password.
    - v. Use of computing facilities to interfere with the work of another student, faculty member, or University official.
    - vi. Use of computing facilities to interfere with normal operation of the University computing system.
    - vii. Knowingly causing a computer virus to become installed in a computer system or file.
1. Preamble. The following rules of procedure in student conduct matters are hereby adopted in order to insure insofar as possible and practicable (a) that the requirements of procedural due process in student conduct proceedings will be fulfilled by the University, (b) that the immediate effectiveness of Section 10.030, which is Article V of the Bylaws of the Board of Curators relating to student conduct and sanctions may be secured for all students in the University of Missouri, and (c) that procedures shall be definite and determinable within the University of Missouri.
  2. Definitions. As used in these rules, the following definitions shall apply:
    - a. Primary Administrative Officers. As used in these procedures, the Chief Student Affairs Administrator on each campus is the Primary Administrative Officer except in cases of academic dishonesty, where the Chief Academic Administrator is the Primary Administrative Officer. Each Primary Administrative Officer may appoint designee(s) who are responsible for the administration of these conduct procedures, provided all such appointments must be in writing, filed with the Chancellor of the campus, and the office of General Counsel. The Primary Administrator's Office will certify in writing that the given designee has been trained in the administration of student conduct matters.
    - b. Student Panel. A panel of students appointed by the Chancellor, from which shall be selected by the Chair, upon the request of a student charged before the Student Conduct Committee, not more than three students to serve with the Student Conduct Committee.
    - c. Student. A person having once been admitted to the University who has not completed a course of study and who intends to or does continue a course of study in or through one of the campuses of the University. For the purpose of these rules, student status continues whether or not the University's academic programs are in session.
    - d. Student Conduct Committee. As used in these procedures, "Student Conduct Committee," hereinafter referred to as the Committee, is that body on each campus which is authorized to conduct hearings and to make dispositions under these procedures or a Hearing Panel of such body as herein defined.
  3. Sanctions.
    - a. The following sanctions may be imposed upon any student found to have violated the Student Conduct Code; more than one of the sanctions may be imposed for any single violation:
      - i. Warning. A notice in writing to the student that the student is violating or has violated institutional regulations.
      - ii. Probation. A written reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe sanctions if the student is found to be violating any institutional regulation(s) during the probationary period.
      - iii. Loss of Privileges. Denial of specified privileges for a designated period of time.
      - iv. Restitution. Compensation for loss, damage, or injury to the University or University property. This may take the form of appropriate service and/or monetary or material replacement.
      - v. Discretionary Sanctions. Work assignments, service to the University, or other related discretionary assignments.

## Student Disciplinary Matters

### 200.020 RULES OF PROCEDURES IN STUDENT CONDUCT MATTERS

([http://www.umsystem.edu/ums/rules/collected\\_rules/programs/ch200](http://www.umsystem.edu/ums/rules/collected_rules/programs/ch200))

**Bd. Min. 11-8-68, Amended Bd. Min. 3-20-81; Bd. Min. 12-8-89,**

**Amended 5-19-94; Bd. Min. 5-24-01; Bd. Min. 7-27-12.**

- vi Residence Hall Suspension. Separation of the student from the residence halls for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified.
  - vii Residence Hall Expulsion. Permanent separation of the student from the residence halls.
  - viii University Dismissal. An involuntary separation of the student from the institution for misconduct apart from academic requirements. It does not imply or state a minimum separation time.
  - ix University Suspension. Separation of the student from the University for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified.
  - x University Expulsion. Permanent separation of the student from the University.
- b. Temporary Suspension. The Chancellor or Designee may at any time temporarily suspend or deny readmission to a student from the University pending formal procedures when the Chancellor or Designee finds and believes from available information that the presence of a student on campus would seriously disrupt the University or constitute a danger to the health, safety, or welfare of members of the University community. The appropriate procedure to determine the future status of the student will be initiated within seven calendar days.
4. Records Retention. Student conduct records shall be maintained for five years after University action is completed.
5. Policy and Procedures.
- a. Preliminary Procedures. The Primary Administrative Officer/ Designee(s) shall investigate any reported student misconduct before initiating formal conduct procedures and give the student the opportunity to present a personal version of the incident or occurrence. The Primary Administrative Officer/ Designee(s) may discuss with any student such alleged misconduct and the student shall attend such consultation as requested by the Primary Administrative Officer/Designee(s). The Primary Administrative Officer/Designee(s), in making an investigation and disposition, may utilize student courts and boards and/or divisional deans to make recommendations.
  - b. Informal Dispositions. The Primary Administrative Officer/ Designee(s) shall have the authority to make a determination and to impose appropriate sanctions and shall fix a reasonable time within which the student shall accept or reject a proposed informal disposition. A failure of the student either to accept or reject within the time fixed may be deemed by the University to be an acceptance of the determination, provided the student has received written notice of the proposed determination and the result of the student's failure to formally reject and, in such event, the proposed disposition shall become final upon expiration of such time. If the student rejects informal disposition it must be in writing and shall be forwarded to the Committee. The Primary Administrative Officer/Designee(s) may refer cases to the Committee without first offering informal disposition.
  - c. Formal Procedure and Disposition.
    - i Student Conduct Committee:
      - 1. The Committee shall be appointed by the Chancellor and shall have the authority to impose appropriate sanctions upon any student or students appearing before it.
    - 2. The Committee, when appropriate or convenient, may be divided by the Chair of the Committee into Hearing Panels, each panel to be composed of at least five Committee members, which may include a maximum of two students, present at the hearing, including a designated chair. A Hearing Panel has the authority of the whole Committee in those cases assigned to it. The Chair of the Committee or of a Hearing Panel shall count as one member of the Committee or Hearing Panel and have the same rights as other members.
    - 3. Each Chancellor shall appoint a panel of students, to be known as the Student Panel. Upon written request of a student charged before the Committee, made at least seventy-two (72) hours prior to the hearing, the Chair of the Committee or Hearing Panel shall appoint from the Student Panel not more than three students to sit with the Committee or two students to sit with the Hearing Panel (as stated in 3.a.(2)) for that particular case. When students from the Student Panel serve at the request of a student charged, they shall have the same rights as other members of the Committee or Hearing Panel.
- ii General Statement of Procedures. A student charged with a breach of the Student Conduct Code is entitled to a written notice and a formal hearing unless the matter is disposed of under the rules for informal disposition. Student conduct proceedings are not to be construed as judicial trials and need not wait for legal action before proceeding; but care shall be taken to comply as fully as possible with the spirit and intent of the procedural safeguards set forth herein. The Office of the General Counsel shall be legal adviser to the Committee and the Primary Administrative Officer/Designee(s).
- iii Notice. The Primary Administrative Officer/Designee(s) shall initiate student conduct proceedings by arranging with the Chair to call a meeting of the Committee and by giving written notice by certified mail or personal delivery to the student charged with misconduct. The notice shall set forth the date, time, and place of the alleged violation and the date, time, and place of the hearing before the Committee. Notice by certified mail may be addressed to the last address currently on record with the University. Failure by the student to have a current correct local address on record with the University shall not be construed to invalidate such notice. The notice shall be given at least seven (7) consecutive days prior to the hearing, unless a shorter time be fixed by the Chair for good cause. Any request for continuance shall be made in writing to the Chair, who shall have the authority to continue the hearing if the request is timely and made for good cause. The Chair shall notify the Primary Administrative Officer/Designee(s) and the student of the new date for the hearing. If the student fails to appear at the scheduled time, the Committee may hear and determine the matter.



- d. Right to Petition for Review: (other than University expulsion, University dismissal, or University suspension).
- i In all cases where the sanction imposed by the Committee is other than University expulsion, University dismissal, or University suspension, the Primary Administrative Officer/Designee(s), the charged student or the alleged victim, (referred to hereafter as the "complainant") in the case of nonconsensual sexual behavior may petition the Chancellor or Designee in writing for a review of the decision within five (5) calendar days after written notification. A copy of the Petition for Review must also be served upon the nonappealing party or parties within such time. The Petition for Review must state the grounds or reasons for review in detail, and the nonappealing party or parties may answer the petition within five (5) calendar days.
  - ii The Chancellor or Designee may grant or refuse the right of review. In all cases where the Petition for Review is refused, the action of the Committee shall be final. If the Chancellor or Designee reviews the decision, the action of the Chancellor shall be final unless it is to remand the matter for further proceedings.
- e. Right of Appeal (University expulsion, University dismissal, or University suspension only).
- i When a charged student is expelled, dismissed, or suspended from the University by the Committee, the Primary Administrative Officer/Designee(s), the charged student or the complainant in the case of nonconsensual sexual behavior may appeal such decision to the Chancellor or Designee by filing written notice of appeal stating the grounds or reasons for appeal in detail with the Chancellor within ten (10) calendar days after notification of the decision of the Committee. A copy of the Notice of Appeal will contemporaneously be given by the charged student to the Primary Administrative Officer/Designee(s) and complainant or by the Primary Administrative Officer/Designee(s) to the charged student and complainant, or by the complainant to the charged student and Primary Administrative Officer/Designee(s). The appealing party may file a written memorandum for consideration by the Chancellor with the Notice of Appeal, and the Chancellor may request a reply to such memorandum by the appropriate party.
  - ii The Chancellor or Designee shall review the record of the case and the appeal documents and may affirm, reverse, or remand the case for further proceedings and shall notify each party in writing of the decision on the appeal. The action of the Chancellor shall be final unless it is to remand the matter for further proceedings.
- f. Status During Appeal. In cases of suspension, dismissal, or expulsion where a Notice of Appeal is filed within the required time, a student may petition the Chancellor in writing for permission to attend classes pending final determination of appeal. The Chancellor may permit a student to continue in school under such conditions as may be designated pending completion of appellate procedures, provided such continuance will not seriously disrupt the University or constitute a danger to the health, safety, or welfare of members of the University community. In such event, however, any final sanctions imposed shall be effective from the date of the action of the Committee.
- g. Student Honor System. Forums under the student honor systems established for investigating facts, holding hearings, and recommending and imposing sanctions are authorized when the student honor code or other regulations containing well defined jurisdictional statements and satisfying the requirements of Section 10.030, which is Article V of the Bylaws of the Board of Curators, have been reduced to writing and have been approved by the Chancellor and the Board of Curators and notice thereof in writing has been furnished to students subject thereto. Though the student honor system has jurisdiction, together with procedures set forth therein, instead of the Primary Administrative Officer/Designee(s), the standard of conduct called for in any such student honor system shall be deemed to contain at a minimum the same standards set forth in Section 200.010, entitled Standards of Conduct. Procedures shall satisfy the requirements of the Board of Curators' Bylaws, Section 10.030, which is Article V, and shall contain procedures herein before stated insofar as appropriate and adaptable to the particular situation and shall be approved by the Chancellor and the General Counsel. Students subject to student honor systems shall have the rights of appeal as set forth in Section 200.020 E.6 and 7.
6. Hearing Procedures.
- a. Conduct of Hearing. The Chair shall preside at the hearing, call the hearing to order, call the roll of the Committee in attendance, ascertain the presence or absence of the student charged with misconduct, read the notice of hearing and charges and verify the receipt of notices of charges by the student, report any continuances requested or granted, establish the presence of any adviser or counselor of the student, and call to the attention of the student charged and the adviser any special or extraordinary procedures to be employed during the hearing and permit the student to make suggestions regarding or objections to any procedures for the Conduct Committee to consider.
- In cases where the misconduct charged is nonconsensual sexual behavior, the complainant will be afforded the same rights in the hearing as the accused student as described below. In such cases, questions between the accused student and the complainant will be made through the Chair.
- i Opening Statements.
    1. The Primary Administrative Officer/Designee(s) shall make opening remarks outlining the general nature of the case and testify to any facts the investigation has revealed.
    2. The student charged may make a statement to the Committee about the charge at this time or at the conclusion of the University's presentation. In cases of nonconsensual sexual behavior the complainant may likewise make a statement to the Committee at either time.
  - ii University Evidence.
    1. University witnesses are to be called and identified or written reports of evidence introduced as appropriate.
    2. The Committee may question witnesses at any time.

3. The student charged or, with permission of the Committee, the adviser or counselor may question witnesses or examine evidence at the conclusion of the University's presentation. In cases of nonconsensual sexual behavior the complainant may also question witnesses or examine evidence at the conclusion of the University's presentation and the student charged's questions. In such cases, questions between the charged student and the complainant will be made through the Chair.
- iii Charged Student Evidence.
1. If the student charged has not elected to make a statement earlier under a.(2) above, the student shall have the opportunity to make a statement to the Committee about the charge.
  2. The student may present evidence through witnesses or in the form of written memoranda.
  3. The Committee may question the student or witnesses at any time. The Primary Administrative Officer/Designee(s) may question the student or witnesses. In cases of nonconsensual sexual behavior the complainant may question witnesses. In such cases, questions between the complainant and the charged student will be made through the Chair.
- iv Complainant's Evidence (in cases of nonconsensual sexual behavior)
1. If the complainant has not elected to make a statement earlier under a.(2) above, the complainant shall have the opportunity to make a statement to the Committee about the charge.
  2. The complainant may present evidence through witnesses or in the form of written memoranda.
  3. The Committee may question the complainant or witnesses at any time. The charged student may question witnesses. Questions between the charged student and the complainant will be made through the Chair.
- v Rebuttal Evidence. The Committee may permit the University or the charged student, or in cases of nonconsensual sexual behavior, the complainant to offer a rebuttal of the other's presentation(s).
- vi Rights of Student Conduct Committee. The Committee shall have the right to:
1. Hear together cases involving more than one student which arise out of the same transaction or occurrence, but in that event shall make separate findings and determinations for each student;
  2. Permit a stipulation of facts by the Primary Administrative Officer/Designee(s) and the student involved;
  3. Permit the incorporation in the record by reference of any documentation, produced and desired in the record by the University or the student charged;
  4. Question witnesses or challenge other evidence introduced by either the University or the student at any time;
  5. Hear from the Primary Administrative Officer/Designee(s) about dispositions made in similar cases and any dispositions offered to the student appearing before the Committee;
6. Call additional witnesses or require additional investigation;
  7. Dismiss any action at any time or permit informal disposition as otherwise provided;
  8. Permit or require at any time amendment of the Notice of Hearing to include new or additional matters which may come to the attention of the Committee before final determination of the case; provided, however, that in such event the Committee shall grant to the student or Primary Administrative Officer/Designee(s) such time as the Committee may determine reasonable under the circumstances to answer or explain such additional matters;
  9. Dismiss any person from the hearing who interferes with or obstructs the hearing or fails to abide by the rulings of the Chair of the Committee;
  10. Suspend summarily students from the University who, during the hearing, obstruct or interfere with the course of the hearing or fail to abide by the ruling of the Chair of the Committee on any procedural question or request of the Chair for order.
- b. Rights of Students Charged Upon Hearing and of Complainants in the Case of Nonconsensual Sexual Behavior. A student appearing before a Committee shall have the right to:
- i Be present at the hearing;
  - ii Have an adviser or counselor and to consult with such adviser or counselor during the hearing;
  - iii Hear or examine evidence presented to the Committee;
  - iv Question witnesses present and testifying;
  - v Present evidence by witnesses or affidavit;
  - vi Make any statement to the Committee in mitigation or explanation of the conduct in question;
  - vii Be informed in writing of the findings of the Committee and any sanctions it imposes; and
  - viii Request review or appeal to the Chancellor as herein provided.
- c. Determination by the Student Conduct Committee. The Committee shall then make its findings and determinations based on the preponderance of the evidence in executive session out of the presence of the Primary Administrative Officer/Designee(s) and the student charged. Separate findings are to be made:
- i As to the conduct of the student, and
  - ii On the sanctions, if any, to be imposed. No sanctions shall be imposed on the student unless a majority of the Committee present is convinced by the preponderance of the evidence that the student has committed the violation charged.
- d. Official Report of Findings and Determinations. The Committee shall promptly consider the case on the merits and make its findings and determination and transmit them to the Primary Administrative Officer/Designee(s) and the student charged forthwith.

- e. Other Procedural Questions. Procedural questions which arise during the hearing not covered by these general rules shall be determined by the Chair, whose ruling shall be final unless the Chair shall present the question to the Committee at the request of a member of the Committee, in which event the ruling of the Committee by majority vote shall be final.
- f. General Rules of Decorum. The following general rules of decorum shall be adhered to:
- i All requests to address the Committee shall be addressed to the Chair.
  - ii The Chair will rule on all requests and points of order and may consult with Committee's legal adviser prior to any ruling. The Chair's ruling shall be final and all participants shall abide thereby, unless the Chair shall present the question to the Committee at the request of a member of the Committee, in which event the ruling of the Committee by majority vote shall be final.
  - iii Rules of common courtesy and decency shall be observed at all times.
  - iv An adviser or counselor may be permitted to address the Committee at the discretion of the Committee. An adviser or counselor may request clarification of a procedural matter or object on the basis of procedure at any time by addressing the Chair after recognition.
- g. Record of Hearing. An audio, video, digital, or stenographic record of the hearing shall be maintained. The notice, exhibits, hearing record, and the findings and determination of the Committee shall become the "Record of the Case" and shall be filed in the Office of the Primary Administrative Officer/Designee(s) and for the purpose of review or appeal be accessible at reasonable times and places to both the University and the student(s) entitled to review or appeal.
- h. Crimes of Violence and Non-Forcible Sex Offences. In cases of alleged crimes of violence and non-forcible sex offences:
- i The alleged victim is entitled to have an adviser or counselor present during his or her participation in the hearing.
  - ii The alleged victim and the accused shall be informed of the outcome of any campus disciplinary proceeding brought alleging a crime of violence or non-forcible sexual assault.

## Policy on Hazing

Hazing, defined by the Fraternity Executive Association and accepted by the University of Missouri#St. Louis, is any intentional action taken or situation created, whether on or off university premises, that produces mental or physical discomfort, embarrassment, harassment, or ridicule. This includes but is not limited to: paddling in any form, creation of excessive fatigue, physical or psychological shocks, wearing apparel publicly which is conspicuous and not normally in good taste, engaging in public stunts and buffoonery, morally degrading or humiliating games and activities, involuntary labor, or any activity not consistent with the University of Missouri Board of Curators Standard of Student Conduct. The University of Missouri#St. Louis does not condone or tolerate hazing of any type by an organization, or by an individual against another individual.

The Office of Student Activities will investigate any incident in which a charge of hazing has been made. University recognition may be temporarily withdrawn pending hearings and due process procedures.

Should it be determined that a student organization or any of its members is guilty of hazing as previously defined, sanctions may include but are not limited to:

1. Automatic and indefinite suspension of campus recognition or registration with an accompanying loss of all campus privileges (i.e. use of facilities, student services, etc.);
2. Disciplinary action against those members involved in the incident(s) including suspension or expulsion from the university.

Implementation: Each organizational president (or equivalent officer) is required to read and sign the university's Policy on Hazing at the first regular meeting at which he or she presides. This policy, signed by the incoming president (or equivalent officer), must accompany any notification of a change in officers submitted to the Office of Student Activities. Failure to do so will result in the automatic imposition of inactive status on the organization with an accompanying loss of all university privileges until such time as the signed policy is submitted.

The following equal opportunity policies have been established by the University of Missouri Board of Curators to govern the academic and administrative functions of the four campuses and are available on the UM System website.

**320.010 EQUAL EMPLOYMENT OPPORTUNITY** (<http://www.umsystem.edu/ums/departments/gc/rules/personnel/320/010.shtml>)  
**PROGRAM**

**330.060 SEXUAL HARASSMENT** (<http://www.umsystem.edu/ums/departments/gc/rules/personnel/330/060.shtml>)

**240.040 POLICY RELATED TO STUDENTS WITH DISABILITIES** (<http://www.umsystem.edu/ums/departments/gc/rules/programs/240/040.shtml>)

**330.070 AFFIRMATIVE ACTION ON COMMITTEE APPOINTMENTS** (<http://www.umsystem.edu/ums/departments/gc/rules/personnel/330/070.shtml>)

Should a student feel that the campus has not followed these policies, they have access to the University of Missouri ([http://www.umsystem.edu/ums/rules/collected\\_rules/grievance/ch390/grievance\\_390.010](http://www.umsystem.edu/ums/rules/collected_rules/grievance/ch390/grievance_390.010)) **Discrimination Grievance Procedure for Students.**

Students may contact the Student Advocate in Academic Affairs (<http://www.umsl.edu/services/academic/student/advocate.html>) to lodge complaints or seek information about these procedures.

## Academic Dishonesty

Academic dishonesty is a serious offense that may lead to probation, suspension, or expulsion. One form of academic dishonesty is plagiarism--the use of an author's ideas, statements, or approaches without crediting the source. Academic dishonesty also includes such acts as cheating by copying information from another student's examination, take-home test, or laboratory manual. The code of student conduct is in this Bulletin and is also available in the UMSL Student Planner.

## Honor Statement

The University of Missouri-St. Louis encourages students to pursue excellence within a respectful and collegial environment and to assume



responsibility for the consequences of personal actions. For that reason the university requires students to reject any type of dishonest behavior.

Honesty precludes seeking, providing, or receiving any form of unauthorized assistance on tests or any type of assignment. It requires giving credit through appropriate citation to the author of materials used in written or oral assignments.

The full Student Standard of Conduct is available on the Web and in the student planner. By registering for a class at UMSL, students agree to follow this standard of integrity.

These statements are set forth as guidelines and procedures to implement the University of Missouri policy on student records developed from the federal Family Educational Rights and Privacy Act of 1974.

The University of Missouri-St. Louis, as charged in the act, will annually inform its eligible students by including in the Student Planner, the Schedule of Courses, and the UMSL Bulletin the following information:

1. "Education Records" are those records, files, documents, and other materials that contain information directly related to a student and are maintained by the university. Those records, made available under The Family Educational Rights and Privacy Act of 1974, are student financial aid, the student's cumulative advisement file, student health records, disciplinary records, admissions file, and academic record. Confidential letters and statements of recommendation that were placed in student credential folders at the Office of Career Placement Services after January 1, 1975, are also made available, if the student has not waived the right to view these recommendations.

The University of Missouri-St. Louis "Education Records" do not include:

Records of instructional, supervisor, and administrative personnel and educational personnel ancillary thereto which are in the sole possession of the maker thereof and which are not accessible or revealed to any other person except a substitute.

Records of the University of Missouri Police Department created for a law enforcement purpose and maintained by the police department.

In the case of persons who are employed by the university but who are not in attendance at the university, records made and maintained in the normal course of business that related exclusively to such persons and that person's capacity as an employee where the records are not available for any other purpose.

All records on any university student that are created and maintained by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional acting in his professional or paraprofessional capacity, or assisting in that capacity, and created, maintained, or used only in connection with the provision of treatment to the student, and are not available to anyone other than persons providing such treatment, provided, however, that such records can be personally reviewed by a physician or other appropriate professional of the student's choice.

1. The University of Missouri-St. Louis recognizes "Directory Information/Public Information" to mean a student's name, address, telephone listing, e-mail, enrollment status, current level, major field of study, participation in officially recognized activities and sports, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. All students must inform the Office of the Registrar before

the end of the twoweek period following the first day of classes if the information designated as directory information should not be released without the student's prior consent. The student privacy form is available on-line. Students may also change their privacy settings by logging in to MyView. The information listed above will become directory information or public information as of the first day of classes following the end of the twoweek period in a regular semester and the first day of classes following the end of the one-week period during the summer session.

2. University of Missouri-St. Louis students have access to the educational records identified in Paragraph 1 above. In accordance with Public Law 93380 as amended, the University of Missouri-St. Louis will not make available to students the following materials:

Financial records of the parents of students or any information contained therein.

Confidential letters and statements of recommendation placed in the education records prior to January 1, 1975, if such letters or statements are not used for the purpose other than those for which they were specifically intended.

Confidential recommendations respecting admission to the university, application for employment and receipt of honor, or honorary recognition, where the student has signed a waiver of the student's rights of access as provided in 6.0404, the University Policy on Student Records.

1. The Director of Financial Aid, the appropriate academic dean, Assistant Vice Provost for Student Affairs: Health, Wellness, & Counseling Services, the Vice Provost for Student Affairs, the Director of Career Placement Services, the Director of Admissions, and the Registrar are the officials responsible for the maintenance of each type of record listed in Paragraph 1.
2. Any student may, upon request, review his or her records and, if inaccurate information is included, may request the expunging of such information from the file. Such inaccurate information will then be expunged upon authorization of the official responsible for the file.
3. Students desiring to challenge the content of their record may request an opportunity for a hearing to challenge the content of the educational record in order to ensure that the record is not inaccurate, misleading, or otherwise in violation of the privacy or other rights of the student, to provide an opportunity for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data contained therein, and to insert into such records a written explanation respecting the content of such records.
4. The university official charged with custody of the records will attempt to settle informally any disputes with any student regarding the content of the university's educational records through informal meetings and discussions with the student.
5. Upon request of the student or the university official charged with custody of the records of the student, a formal hearing shall be conducted as follows:
  - a. The request for a hearing shall be submitted in writing to the chancellor, who will appoint a hearing officer or a hearing committee to conduct the hearing.
  - b. The hearing shall be conducted and decided within a reasonable period of time following the request for a hearing. The parties will be entitled to written notice 10 days prior to the time and place of the hearing.

- c. The hearing shall be conducted and the decision rendered by an appointed hearing official or officials who shall not have a direct interest in the outcome of the hearing.
- d. The student shall be afforded a full and fair opportunity to present evidence relevant to the hearing.
- e. The decision shall be rendered in writing within a reasonable period of time after the conclusion of the hearing.

Either party may appeal the decision of the hearing official or officials to the campus chancellor. Appeal of the chancellor's decision is to the president. Appeal of the president's decision is to the Board of Curators.

1. The University of Missouri-St. Louis will not mail grade reports to parents unless the student has completed the necessary authorization in the registrar's office.
2. The University of MissouriSt. Louis may permit access to or release of the educational records without the written consent of the student to the parents of a dependent student as defined in Section 152 of the Internal Revenue Code of 1954.
3. If any material or document in the educational record of a student includes information on more than one student, the student may inspect and review only such part of such material or document as relates to him or her or to be informed of the specific information contained in such part of such material.

## Undergraduate Studies

### Grading System

The grading system available to all faculty at UMSL consists of:

Letter Grade	Ranking
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0
FN	0
EX	Excused
DL	Delayed
FN	Failure/Non Participation

Faculty have full discretion in using full-letter grades, plus/minus grades, or any combination of full-letter and plus/minus grades. The student's grade point average is computed by dividing the total quality points (number of credit hours for a course, multiplied by the grade value received) by the number of hours taken (excluding grade modified hours). Students at UMSL may have three separate Grade Point Averages. The first is the Campus GPA, which is computed by dividing the quality points earned from the grades of each course taken through UMSL by the total course hours attempted at UMSL. Students who have attended any of the other three universities within the University of Missouri System will also have

a System GPA, which is computed by dividing the quality points earned from every course taken from a campus within the UM System. In addition, transfer students from outside the UM System will also have a transfer GPA, which is computed from all courses the student has taken outside the UMSL campus or the UM System. It is calculated by dividing the quality points of all courses by the hours attempted.

Unless a specific request is made through the Registrar's Office, the University of Missouri System does not distribute grade reports to students via postal mail. Final course grades can be obtained electronically by any of the following methods:

To access grades through the My Gateway system, students must know Single Sign On (SSO) ID and password, available through MyGateway.

Students may also view their grades on MyView, by following this path: Self Service > Student Center > Grade Tab under Academic History; select semester.

Students may request a printed copy of the grade report at no charge. Once requested, the grade report will be mailed to the official address of record. Requests may be made by phone, mail, e-mail, fax, or in person; contact information is available at the Registration website.

### Education majors

Professional education courses must be completed with a grade point average of 2.50. Since no grade lower than a C 2.0 can be applied to the degree, a C- grade is not acceptable.

### Delayed Grade

A student whose work is incomplete at the end of any semester and who has, in the instructor's judgment, sufficient reasons for failing to complete the work, may, with the approval of the instructor and department chairperson, be assigned a delayed grade. Such work must be made up no later than one semester after the incomplete grade is given, or the grade automatically becomes F. The dean may, in unusual circumstances, extend this time limitation (summer session is not counted as a semester). Instructors inform the registrar of a change in a delayed grade only via a special form.

### Failure/Non participation

When students do not complete any graded assignments but do not officially withdraw from the course or the university, instructors may assign an FN. The F for Non-Participation cannot be changed to a grade and will be treated in GPA calculations as an F.

### Satisfactory/Unsatisfactory Option

Undergraduate students may take up to 18 credit hours on a satisfactory/unsatisfactory (S/U) grading basis. This includes courses taken as electives or those that satisfy general education requirements. Most courses required for a specific degree may not be taken on a satisfactory/unsatisfactory basis. Academic departments may designate other courses within their jurisdiction that may not be taken under the option.

A satisfactory grade "S" is recorded when an instructor assigns the grade of A, A-, B+, B-, C+, or C-, and has no numerical value in computing students' cumulative grade point average; however, it does satisfy credit-hour-for graduation requirements. An unsatisfactory grade "U" is recorded when an instructor assigns the grades of D+, D, D-, or F. A course assigned a "U" grade will not satisfy credit hours for graduation. Grades will be recorded on transcripts as S or U

Students register for courses in the normal manner and may exercise the satisfactory/unsatisfactory option before the end of the first four weeks of a regular semester (or the first two weeks of a summer session). Requests for this option are made through the appropriate dean's office. Instructors are not informed of students taking courses on a satisfactory/unsatisfactory basis until submitting course grades.

## Audit

Audit has no numerical value in computing students' cumulative grade point average, nor does it satisfy any credit-hour graduation requirements.

## Math and English Proficiency Requirement

Students who have not satisfied the Math and English proficiency requirement by the end of their first semester at UMSL will receive an advising hold and must meet with an Academic Advisor to register in these gateway courses in order for the hold to be removed.

## Grade Modification

When the grade received in an initial attempt in a course at UMSL is a C-, D+, D, D--, F, or FN, the grade may be replaced in the calculation of the GPA by the grade received in a second or subsequent attempt of the same course at UMSL. All grades received in second and subsequent attempts will be included in GPA calculations. All attempts of a given course will appear on the official transcript with the grade(s) earned. The transcript will have an explanation that states that the GPA is calculated using all grades earned in a course except the initial attempt when a course has been repeated and grade modified.

Note: Grade modification is not automatic. After completing the second or subsequent attempt of the course to be modified, students must process the necessary paperwork with an academic adviser in the academic unit in which the student is currently enrolled.

## Academic Renewal

Academic Renewal allows all courses, credits, and grades during specific term(s) to be excluded from the GPA calculation. The courses will remain on the permanent academic record but the record will be annotated so that it is readily evident that no credits earned during those excluded terms, even if satisfactory, will apply towards units for graduation. Students seeking their first degree who return to UMSL after an absence of at least 12 months may apply for Academic Renewal for semesters completed prior to their absence after re-admission and successful completion of 12 credit hours at a 2.0 GPA or better. Recipients of Academic Renewals are not eligible for Latin Honors or academic awards. Applications for Academic Renewal must be completed with an academic advisor and will require evidence of likelihood of future academic success to receive dean's approval. A student may be granted Academic Renewal only once in their academic career at UMSL.

The implementation of this policy will follow the general procedures listed below. Students must apply for the renewal and demonstrate academic success in twelve credit hours before the renewal is granted.

### Non-enrolled students:

1. Students not enrolled will have to discuss Academic Renewal with an academic advisor and may apply for Academic Renewal in the dean's office of the college of students' major or College of Arts & Science for those undeclared.

2. Students should follow normal procedures for re-admission. Students denied re-admission, but eligible for academic renewal, should discuss their case with an enrollment advisor.
3. Students may be accepted for re-admission on probationary status.
4. After earning 12 credit hours in their major or in required classes with at least a 2.0 GPA, students complete the Academic Renewal process by requesting approval of the dean or designee.

### Enrolled students:

1. Continuing students may initiate the Academic Renewal process by conferring with their advisor about the impact of the process on their graduation plans.
2. Implications of Academic Renewal on financial aid should also be discussed with Financial Aid office staff.
3. Should continuing students wish to pursue the Academic Renewal process, they may apply in the dean's office of the college of students' major or College of Arts & Science for those undeclared.

## Transcripts

The registrar will furnish transcripts to a student upon receipt of a completed and signed transcript request form online or in person in the Records Office, 269 MSC. Transcripts are furnished to third parties only if students have filed written consent with the Registrar's Office. Transcripts may also be requested online. There is a charge for each transcript.

Transcripts are not issued to or for students who have financial obligations to any university within the UM System until those obligations are paid in full.

## Course Load

A normal fulltime semester course load is 15 semester credit hours. Minimum fulltime enrollment is 12 hours each semester, fall, spring, and summer. Students who have demonstrated the ability to carry more than 18 hours may do so with the approval of their dean.

## Dropping/Adding Courses

To add courses to their original enrollment, students must get approval from their advisers. Students may not enter courses after the first week of class of a regular semester, the first four days of class of an eight-week session, or the first three days of class of a four-week session.

Courses may be dropped, without approval and without receiving a grade, through the fourth week of classes of a regular semester, the second week of classes of an eight-week session and the first week of classes of a four-week session. Spring, summer, and fall session calendars include specific deadlines. Students who officially drop one or some of their classes may have fees reassessed and/or refunded based on the current fee reassessment schedule.

During the 5th-12th week of classes, students may withdraw from a course with an "Excused" grade, providing they are passing the course and receive the approval of their instructor and dean's office representative. Otherwise, a failing grade is given. Students not attending classes who fail to drop officially receive an F or FN grades, depending the level of participation in class. After the allowable period, "Excused" grades are given only in exceptional instances where the instructor's approval and dean's approval are given. These grades are recorded on the students' official records. If an F or FN grade is recorded, it is computed in the student's grade point average. No partial credit is granted to students who withdraw from a course during any semester or otherwise fail to complete

the work required for full course credit. Please refer to the Semester Calendar to determine allowable timelines.

## Section Changing

Section changing is normally completed during the first week of a regular semester, the first four days of an eight-week session and the first three days of a four-week session. Approvals may not be necessary during this time. However, after the first week of a regular semester, the first four days of an eight-week session, and the first three days of a four-week session, a section change form must be obtained from the department or dean's office. The signature of both instructors is required. The form is to be submitted to the Registration Office, 269 Millennium Student Center.

## Withdrawing from the University after Classes Begin

After classes begin, students may withdraw from the university by completing the withdrawal form, available in the dean's office. During the first four weeks of a regular semester students may withdraw from the university without receiving grades. After this period, grades of F or "Excused" are issued, based on whether the student is passing or failing. After the regular semester's twelfth week, "Excused" grades are given only in exceptional instances with the instructor's and the dean's approvals. These grades are recorded on the student's official record at the end of the term. An F grade is counted in computing the grade point average. No partial credit is granted to students who withdraw from school during any semester or otherwise fail to complete the work required for full course credit. Students who stop attending classes without officially withdrawing from the university are issued an F or an FN grade. Both F and FN grades are counted in computing grade point averages. Fall, spring, and summer session calendars list specific withdrawal dates.

## Declaring a Major

A student's first major, or undeclared major status, is determined by his or her application for admission. Students who have not declared a major at 60 credit hours (junior status) will receive an advising hold and must declare a major with an academic unit before this hold is removed. Transfer students arriving at UMSL with 60 or more credit hours will receive an advising hold preventing them from registering for their second semester until they have declared a major. They can declare a major by following the procedures for a change of major outlined below.

## Change of Major

While applying, students are typically not certain about the requirements for a major at UMSL. Students are encouraged to explore majors through professors, advisors, the Career Center, and co-curricular activities during their first semester at UMSL. If they want to change their major, they are encouraged to do so before their second semester at UMSL.

To change academic majors, students should consult the advising office of the new major to determine their eligibility and which courses they have already completed apply toward the new major. Students must then submit the appropriate forms at the office of the college or school of their new major.

## Academic Probation, Suspension, and Dismissal

Students whose campus cumulative grade point average falls below 2.0, will be placed on University Academic Probation. If students' campus cumulative GPA remains under 2.0 after serving two semesters on probation (not necessarily consecutive), then they may be suspended from

the university. Students should consult with their respective dean's office for additional information.

Students suspended or dismissed from one school or college within the university shall not be admitted to any other school or college until they are eligible for readmission to the university. In order for suspended students to be considered for readmission to the university they must successfully complete at least one semester at an accredited post-secondary institution.

## Academic Residence

Students must be in residence for at least 24 of the last 30 hours of graded credit (exclusive of courses graded on a satisfactory/unsatisfactory basis), except under unusual circumstances, to be decided by the dean.

## Graduation

Students are expected to file a degree application form with their respective dean's office at least one year before the expected graduation date. The dean's office makes a final check to determine that all graduation requirements have been met. Students should check with the dean's office or an adviser to be sure their program fulfills the requirements of the department and college or school, as well as the university general requirements. To assure graduating at the end of a specific semester, all work for that semester and any delayed grades from previous semesters must be completed with the grades sent to the Office of the Registrar no later than the official date for submission of final semester grades.

## Academic Recognition

### Honor Societies

The following is a list of honor societies at the University of Missouri-St. Louis:

- Alpha Delta Sigma (Advertising)
- Alpha Epsilon Rho (Communication)
- Alpha Mu Alpha (College of Business Administration-Marketing)
- Alpha Mu Gamma (Languages and Cultures)
- Alpha Phi Sigma (Criminology and Criminal Justice)
- Alpha Sigma Lambda
- Beta Alpha Psi (College of Business Administration, Accounting Majors)
- Beta Beta Beta (Biology)
- Beta Gamma Sigma (College of Business Administration)
- Beta Sigma Kappa (College of Optometry)
- Chi Sigma Iota (Counseling and Family Therapy)
- Financial Management Association (College of Business Administration)
- Golden Key National Honour Society (Campus-wide)
- Kappa Delta Pi (College of Education)
- Lambda Alpha (Anthropology)
- Omicron Delta Epsilon (Economics)
- Phi Alpha (Social Work)
- Phi Alpha Theta (History)
- Phi Kappa Phi (Interdisciplinary)
- Pi Alpha Alpha (Public Policy Administration)
- Pi Sigma Alpha (Political Science)
- Psi Chi (Psychology)



- Sigma Delta Pi (Spanish)
- Sigma Iota Rho (International Studies)
- Sigma Tau Delta (English)
- Sigma Theta Tau International Honor Society of Nursing, Nu Chi Chapter (Nursing)

## Dean's List

At the end of each semester the College of Arts and Sciences, College of Business Administration, College of Education, College of Fine Arts and Communication, and College of Nursing send letters of commendation to undergraduates completing at least nine hours of graded courses with grade point averages of 3.2 or above for the semester. In addition, each college and school, on an annual basis, sends letters of commendation to parttime undergraduate students who have earned a 3.2 grade point average or above in at least nine but not more than 17 graded hours during the fall and spring semesters combined.

## Latin Honors

To graduate with Latin honors, students must have attended UMSL for at least 56 graded hours and must meet the following qualifications: cum laude 3.2 to 3.49 grade point average; magna cum laude 3.5 to 3.79 grade point average; summa cum laude 3.8 to 4.0 grade point average. If a student has the necessary GPA at UMSL to qualify for Latin honors but has fewer than 56 graded hours at UMSL, all credit hours and the associated grades earned within the UM System will be included when the total credit hours earned in the UM System are at least 80 graded hours. In determining one's eligibility for Latin honors, all graded hours will be considered, including the original grade in each graded modified course. No Latin honor higher than that which is consistent with the UMSL grade point average will be awarded. All honors must be recommended by the student's major department. (Effective April 2000.)

## Office of National Scholarship Information

The mission of the Office of National Scholarship Information (ONSI) at the University of Missouri-St Louis is to provide campus wide access to merit-based scholarship information and opportunities. The most well-known of these merit-based scholarships include the Rhodes, British Marshall, Goldwater, Udall, Truman, and Fulbright, although numerous other prestigious, and often unique, opportunities exist for outstanding students. For further information, contact the Honors College at (314) 516-5243.

## Assessment

The University of Missouri has been directed by the Board of Curators to assess the outcomes of your university education. To this end, two types of assessment are required: A test of general educational development given to a sample of incoming freshmen and graduating seniors who represent the university; and a test or project, specified by the major department, given to graduating seniors.

For its continuous quality improvements, the University also conducts periodic surveys of student engagement. As alumni, graduates are encouraged to participate in assessment by completing questionnaires sent to them by the University or major department/college.

<http://umsl.edu/admissions>

## Admission

Admission policies and procedures vary according to each applicant's educational goals and prior educational experiences. This section contains

information for First-Time Freshmen, Transfer Students, Returning UMSL Students, Visiting Students, Non-Degree Students, and UMSL Express for senior citizens. The Office of Admissions website contains links to applications for all categories of applicants.

## Admission for First-Time Freshmen

The University of Missouri System has a uniform policy for admission of freshman students to its four campuses. The procedure for regular admission from high school is based on high school class rank, performance on a standardized college aptitude test, and required high school units.

## Application Procedures

Students applying as first-time freshmen (i.e., students applying directly from high school) need to submit the following:

1. A completed Undergraduate Application
  - Application information available from the Office of Admissions website, by phone 314-516-5451, email [admissions@umsl.edu](mailto:admissions@umsl.edu), or in person (351 Millennium Student Center).
2. Application Fee of \$35.00 (\$40.00 for international students) may be paid by:
  - A check or money order made payable to UMSL
  - A credit card during the online application procedure
  - Cash, check, or credit card by appearing in person at the Office of Admissions in 351 Millennium Student Center.
3. High School Transcript and Class Rank.
  - A transcript must be sent directly from your high school to the UMSL Office of Admissions. The transcript should indicate class rank (for schools that rank), all coursework, and, when available, date of graduation. College aptitude test scores are required and may be submitted via this transcript or directly from the testing agency
  - Students from Non-Ranking High Schools: Students applying for Undergraduate Admission who attend high schools that do not rank will be evaluated on a combination of high school grade point average in the required core courses and standardized test scores.
4. College Aptitude Test
  - Freshman admission requires that a test score be submitted from one of the following:
    - American College Testing Program (ACT): The ACT is administered at many locations across the country. Information is available from <http://www.actstudent.org/>, or your high school counselor
    - Scholastic Aptitude Test (SAT): The SAT is administered at many locations across the country. Testing information is available on the Collegeboard website.

## When to Apply

Qualified applicants are admitted and notified by letter of their admission in the order that completed applications are received. Applications are accepted after September 1 for the next fall semester on the basis of six or more high school semesters.

## Admission Requirements

Any high school graduate may be admitted with evidence indicating he or she meets the following requirements:

At least 17 units of credit (One unit=one year in class) as follows:

- English: Four units. Two units emphasizing composition or writing skills. One of the remaining two units may be in speech or debate
- Mathematics: Four units (Algebra 1 and higher)
- Science: Three units not including general science, one of the three units must be a laboratory course
- Social Studies: Three units
- Fine Arts: One unit
- Foreign Language: Two units of a single foreign language
- Math and foreign language units may be accepted from middle/junior high school.

In addition to the 17-unit requirement, each applicant will be evaluated on high school rank and test score (ACT or SAT). Applicants with a composite ACT score of 24 or SAT of 1090 will be admitted without regard to class rank. Class rank will be used to determine eligibility for admission when the applicant's ACT score is from 17 to 23 (SAT is 820 to 1080).

If the ACT Composite score is 17 to 23 or the total of SAT Critical Reading and Math scores is 820 to 1080, the applicant must meet the following high school class rank requirement or core GPA to qualify for admission.

ACT	SAT Total Critical Reading Math	High School Class Percentile Rank	Core GPA
23	1050-1080	48	2.80
22	1020-1040	54	2.90
21	980-1010	62	3.05
20	940-970	69	3.20
19	900-930	78	3.35
18	860-890	86	3.50
17	820-850	94	3.65

## Automatic Admission

Applicants who:

1. Rank in the top 10% of the graduating class of a Missouri high school; and
2. Complete the college preparatory curriculum, which includes at least 17 units of credit (four units each of English and math, three units of social studies, two units of a single foreign language, and one unit of fine art); and
3. Submit an ACT/SAT score.

WILL be eligible for automatic admission to any campus of the University of Missouri.

Applicants Who:

1. Graduate from a Missouri high school that does not rank its graduates; but
2. Have taken a college preparatory curriculum which includes at least 17 units of credit (four units each of English and math, three units of social studies, three units of science, two units of a single foreign language, and one unit of fine art); and
3. Achieve a 3.5 GPA on a 4.0 scale in these core courses; and
4. Submit an ACT/SAT score.

WILL be eligible for automatic admission to any campus of the University of Missouri.

## Admission Appeals

Applicants who do not meet the minimum admissions criteria may still be admitted, depending on evidence of likely success and campus enrollment objectives.

Additional factors considered for admission may include:

- Completion of a rigorous college preparatory curriculum
- Evidence of hardship or unusual circumstances that hindered academic performance
- Significant work experience and/or family responsibilities
- Improvement over time in high school academic record.

Students who fall short of the admission criteria have the option to submit a letter of appeal to address one or more of the factors above. The appeal letter should be addressed to the Admissions Appeals Committee, and additional letters of support are encouraged from teachers, counselors, or principals.

For additional information regarding admission requirements, contact the Office of Admissions at 314-516-5451 or by e-mail at [admissions@umsl.edu](mailto:admissions@umsl.edu).

## Acceptance

Upon graduation, applicants must submit a final high school transcript indicating their class rank (if available) and graduation date (sent directly from the high school). First-time freshmen are required to take the ALEKS placement examination in mathematics.

## Advanced Standing for Entering Freshmen

UMSL grants credit hours to entering freshmen who, through their performance on College Board Advanced Placement Tests and faculty-administered tests, demonstrate proficiency in certain college-level courses such as biology, chemistry, English, foreign languages, history, mathematics, political science, and physics. For further information and applications, contact College Board Placement AP Services by phone (888) 225-5427 or email [apexams@info.collegeboard.org](mailto:apexams@info.collegeboard.org). The score-reporting institution code number for the University of Missouri-St. Louis is 6889. College Board will send the scores directly to the Director of Admissions.

## Dual Credit

Accredited programs such as the Advanced Credit Program at the University of Missouri-St. Louis enable qualified high school juniors and seniors the opportunity to earn college credits while completing high school. Further information about the Advanced Credit Program may be obtained online or by calling 314-516-7005.

## Dual High School/University Enrollment

Superior high school students may be admitted in a special student category to take one or more university courses on campus during their junior or senior years of high school or during the summers. Students must submit a dual enrollment application and a recommendation from the counselor or principal. Students are admitted on the evidence of academic excellence. Admission is limited and governed by available space, and students must meet the prerequisites for the course or courses selected. After reviewing the Dual Enrollment website, students or counselors

may contact the College of Arts and Sciences at 314-516-5501 for more information.

## College Level Examination Program

Applicants may earn advanced credit through the College Level Examination Program (CLEP). CLEP offers subject examinations for credit in specific areas. These examinations can be taken any time, provided the student has not taken a college credit course in the test area. Consultation with an UMSL advisor is highly recommended before taking an exam. CLEP tests are given in the Campus Testing Center by appointment only. Contact the Campus Testing Center at 314-516-6396, in person in 93 JCP, or through their website.

## Credit for Military Service

Credit may be allowed for service training programs conducted by the various Armed Forces branches. The American Council of Education's recommendations in *A Guide to the Evaluation of Educational Experiences in the Armed Services* generally serve as a basis for granting such credit. To count toward a degree, the credit granted must be appropriate to the student's curriculum.

For more information, please visit [umsl.edu/veterans/admissions/CreditForMilitaryService](http://umsl.edu/veterans/admissions/CreditForMilitaryService).

## Probationary Admission

It may be possible for applicants who do not meet the regular admission standards to be admitted on a trial basis. Applicants who do not meet minimum admission requirements can submit a letter of appeal to request probationary admission. The Admission Appeals Committee reviews each letter of appeal and makes decisions on a case-by-case basis.

## High School Equivalency Applicants

Individuals may seek admission on the basis of passing the High School Equivalency (HiSET) test, formerly the General Education Development (GED) test, with a minimum HiSET score of 75 and a minimum of 15 in each of the five subsets; Language Arts-Reading, Language Arts-Writing, Mathematics, Science, and Social Studies or a GED score of 2500 (for tests taken after January 1, 2002; minimum score of 250 required for tests taken prior to January 1, 2002).

In addition, the following must be submitted:

- A completed Undergraduate Application
- A \$35 non-refundable Application Fee (\$40 for international students)
- ACT composite score of at least 24 or SAT Composite of at least 1090
- A high school transcript if ACT/SAT scores are included on the transcript.

## Home-Schooled Students

UMSL welcomes home-schooled students. To be admitted for undergraduate admission, home-schooled applicants must present the following:

- A completed Undergraduate Application (available online)
- A \$35 non-refundable Application Fee (\$40 for international students)
- ACT Composite score of 17-23 or SAT Composite of 820-1090
- A copy of course of study or transcript reflecting all coursework and grades earned, as well as a statement and date of graduation or completion.

If the home-schooled applicant has not completed all units required for graduation (completion), a test-score report of the High School Equivalency (HiSET) test, formerly the General Education Development (GED) test, with a minimum HiSET score of 75 and a minimum of 15 in each of the five subsets; Language Arts-Reading, Language Arts-Writing, Mathematics, Science, and Social Studies or a GED score of 2500 (for tests taken after January 1, 2002; minimum score of 250 required for tests taken prior to January 1, 2002).

## Admission Information for Prospective Students With Prior College Credit

UMSL values transfer students, defined as a student transferring from another college or university with at least 24 earned semester hours of college-level work.

A transferring student who has completed fewer than 24 hours must apply under the procedures for admission to the freshman class with the additional requirement that they submit official transcripts from all college-level courses attempted at previous institutions that document at least a 2.0 (2.3 beginning Fall 2015) overall grade point average (4.0 system).

Students transferring from other colleges and universities with at least 24 hours must submit the following information:

- A completed online Undergraduate Application
- A \$35 non-refundable Application Fee (\$40 for international students)
- Official transcripts from all colleges/universities attended. Hand-carried credentials are not accepted.

All credentials submitted for admission become the property of the University.

## Suspended and Dismissed Transfer Students

It is the practice of the Office of Admissions at the University of Missouri-St. Louis to uphold any suspension or dismissal decision offered to a student from another institution. Students suspended will be required to sit out for one year from the date of suspension before enrolling in UMSL. In addition, students must still meet the minimum admission requirements of a 2.0 (2.3 beginning Fall 2015) GPA. A student may have to attend another institution in order to increase his/her GPA. Students who have been dismissed from another institution may not enroll at the University.

Students who have been dismissed from a specific college or school within another institution will need to show proof that they are eligible to enroll and/or are back in good standing at the previous institution in order to enroll with UMSL.

Additionally, students who are suspended/dismissed from another UM institution shall not be admissible until after one year from the date of the suspension/dismissal. Even though a student is removed from suspension, the student must still meet the minimum admission requirements of a 2.0 (2.3 beginning Fall 2015) GPA.

## Missouri State Transfer Agreement.

Although transfer students should be aware that requirements for degrees vary from institution to institution, some transferred credits may not apply to UMSL programs, UMSL has attempted to minimize the loss of credits by adhering to the Missouri Coordinating Board of Higher Education (CBHE) Articulation Agreement. The agreement outlines statewide undergraduate general education requirements that satisfy the general requirements for



students transferring into UMSL and students transferring out of UMSL to other public universities in the state.

UMSL requires mathematics and writing proficiency beyond the general requirements in the CBHE Statement. Please refer to the General Education requirements for details.

## Transfer Credit

The articulation agreement among public institutions within the state of Missouri governs transfer of credit to UMSL from colleges and universities within the state of Missouri. These guidelines also apply to students transferring to UMSL from schools located outside Missouri. Advanced standing in the form of credit hours may be allowed for work satisfactorily completed in another public or private college or university of recognized standing located in the state of Missouri, as long as the work satisfies the requirements of the student's major.

The transcript at each institution includes all courses attempted. Grades of D or better earned in college-level work at an accredited or approved institution of higher education should receive full credit when transferred to UMSL. The University, however, will treat all grades on courses attempted on the same basis as that of a UMSL student. For example, if a program requires a UMSL student to repeat a specified course having earned a D grade, a transfer student will also be required to repeat the same course if it carries a D grade.

To maximize transfer credits from community colleges, UMSL has transfer guides and articulation agreements with area colleges. Should community college students have any question about the transferability of courses not in the articulation agreement, they should contact the appropriate Transfer Coordinator, preferably prior to taking a course.

## Advanced Standing

Advanced standing includes credit by examination, examination that may or may not appear on a transfer student's transcripts, including College Board Advanced Placement (AP), the College-Level Examination Program (CLEP), International Baccalaureate (IB), and Defense Activity for Non-Traditional Education Support (DANTES). It also includes credit by portfolio review (Bachelor of Fine Arts only). These lower-division credits may not apply at the senior level. For examination credit, students should submit appropriate verification documents to the Office of Admissions before their first semester at UMSL. Students interested in the portfolio review should contact the Art and Art History Department. Early attention to these matters is essential to avoid unnecessary course work or repeats that can lead to loss of credit. If examinations are completed at a later date, verification documents should be submitted as soon as they are available.

Shortly after all official transcripts and other verifications are on file, students' previous academic records are evaluated to determine which courses are applicable, and students receive a written report of the results. Degree checks determining whether courses meet a specific degree requirement and whether courses are accepted as a part of the student's academic major are made in the office of the appropriate dean or advisor. Should there be any question concerning applicability of any courses, students should discuss this with that advisor.

## Associate Degree Transfers from Community Colleges

A student admitted to the university and holding an associate degree (2.0 GPA or higher) applicable toward the baccalaureate degree will

be accepted in junior standing. Students fulfilling the general education requirements outlined by the Missouri Coordinating Board of Higher Education and certified by the sending institution will have met the lower division general education requirements at UMSL. Students with AA degrees from Missouri institutions that include a CBHE approved general education core may transfer more than 64 credit hours for lower division courses. Any additional lower division course credits above 64 credit hours must be applicable to the baccalaureate degree or must be a prerequisite for an upper division course in the major. However, this does not exempt the student from meeting specialized lower-division degree requirements of specific departments. Courses completed in the associate degree program are evaluated for application to specific degree requirements by the same criteria used for transfer students from other colleges and universities.

## Transfers Without an Associate Degree

Transfer applicants who do not have an associate degree will have their transcripts evaluated on a course-by-course basis and will be allowed to transfer a maximum of 60 credit hours from two-year institutions. Students who have fulfilled the general education requirements outlined by CBHE and certified by the sending institution will meet UMSL's general education requirements. Students must meet the minimum requirements of a 2.0 (2.3 beginning Fall 2015) GPA in order to be admitted.

## Transfers Within the University of Missouri System.

Students must be in good standing at another campus of the University of Missouri to be eligible for admission. Students not in good standing will not be admissible until after one year from the date of the suspension/dismissal. Students must meet the minimum admission requirements of a 2.0 (2.3 beginning Fall 2015) GPA in order to be admitted.

Any course that leads to an undergraduate degree on any campus of the University of Missouri shall be accepted in transfer toward the same degree on any campus of the university offering that degree. Grades, including D and F grades, and honor points earned in such courses will also transfer and will be included in the cumulative grade point averages. Unresolved problems related to transferability of credit may be appealed to the office of the appropriate dean.

Students within the last 30 hours of graduation may take a limited number of courses at another campus in the UM system, provided the last 15 hours are taken at UMSL and the work is approved by their respective dean and department.

## Metropolitan Rate

Through a special program, undergraduate and graduate students who live in the following Illinois counties will pay the equivalent to the in-state rate: Adams, Bond, Calhoun, Christian, Clinton, Greene, Jackson, Jefferson, Jersey, Macoupin, Madison, Marion, Monroe, Montgomery, Morgan, Pike, Randolph, Sangamon, Scott, St. Clair, Washington, and Williamson.

Undergraduate and graduate applications from students who live in these select Illinois counties are reviewed for eligibility automatically. No additional application is required.

For more information visit <http://www.umsel.edu/admissions/costs/metro>.

## Midwest Student Exchange

The Midwest Student Exchange Program is an initiative designed by the Midwestern Higher Education Commission to increase interstate educational opportunities for students in its member states. The program enables residents of Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, and Wisconsin to enroll in the institutions and specified programs located outside their home state at reduced tuition levels. Contact Admissions for more information.

## Students from Other Countries

Prospective students living outside the United States and its possessions should contact the Office of International Student and Scholar Services (below) at least one year before the date of desired admission for information about application to the university. Applicants will be expected to supply official original secondary and college/university transcripts from all schools attended as well as other official original documents. International students must also pay a \$40 application fee. All students should make arrangements to take the Test of English as a Foreign Language (TOEFL) well in advance of their admission date.

Since 1998, all students in F-1 and J-1 status have been required to purchase an inexpensive insurance policy with coverage for illness and accidents, billed to the student's UMSL account. For details contact:

### Office of International Student and Scholar Services

261 Student Millennium Center  
One University Boulevard  
St. Louis, MO 63121-4400  
Phone: 314-516-5229  
Email: iss@umsl.edu

Or visit the Office of International Students website

## Returning UMSL Students

Students wishing to return to the University will be required to complete a returning student application and provide official transcripts from other colleges and universities attended since last enrolled as a UMSL student. Students returning must have a minimum 2.0 cumulative gpa.

The returning student application is available on-line, in person at 351 Millennium Student Center, or by calling the Office of Admissions at 314-516-5451.

## Admission for Students Not Seeking an UMSL Degree

### Visiting Students

A visiting student is one who has completed at least one semester at another institution and plans to return to that college or university after attending UMSL. To qualify as a visiting student, applicants must be an actively enrolled student at another college or university. Visiting student applications are available on-line. No application fee required. Transcripts are not required for visiting students. At the end of the session, students must request that their grades be reported by transcript to their respective schools. Financial aid is not available for visiting students.

### Non-Degree-Seeking Students

A non-degree-seeking student is someone interested in taking classes but not wanting a degree from UMSL. Often these are students who have degrees but want to take additional undergraduate classes for personal or professional development. To become a non-degree-seeking student,

applicants complete the application for admission and mark "non-degree-seeking." No application fee is required. No transcripts are required; however, the admission applies only for that particular semester. To attend for another semester, the student must reapply.

Students wishing to become degree-seeking must meet the minimum transfer student requirements of 24 transferable, college-credit hours at a 2.0 gpa. Students may not switch from non-degree to degree-seeking after the first four weeks of the semester.

The non-degree application is available on-line, in person at 351 Millennium Student Center, or by calling 314-516-5451. Financial aid is not available for non-degree seeking students.

## UMSL Express

UMSL Express provides Missouri's senior citizens (65 and older) easy access to undergraduate courses without limit on an audit (not for credit) space-available basis. Graduate courses are not available through this program. Students are subject to: non-refundable \$25 registration fee, a parking fee, and course-related fees. Former UMSL Express students who reapply for the program must again pay the registration fee. UMSL Express applicants may obtain a registration form on-line, in person at 269 Millennium Student Center, or by calling 314-516-5545. Students should complete and return the form with proof of age to the Office of the Registrar on the day before classes are scheduled to begin.

## Graduate Studies

The Graduate Faculty sets Graduate School policies in the Bulletin. Students should be aware that their programs might have rules and policies that are above these minimum university-wide requirements.

## Admissions

The University of Missouri-St. Louis admits qualified individuals to study for graduate degrees and certificates. Students with a bachelor's degree or the equivalent from an accredited college or university may apply for admission to the Graduate School. Applicants may be denied admission if:

1. they do not meet admission standards,
2. there are no available openings, or
3. applications are incomplete at the time of the decision.

Application procedures and forms are available on the Graduate School's Web site.

To receive graduate credit at the University of Missouri-St. Louis, students must have been admitted to the Graduate School as Degree-seeking, Graduate Certificate, or Non-Degree seeking (or Lifelong Learner) student before registering for classes.

## Degree-Seeking or Graduate Certificate Students

Applicants for a degree or graduate certificate program at the University of Missouri-St. Louis submit an application, official transcript documenting the baccalaureate degree and all other prior coursework, scores from examinations required by the program, and other evidence of academic and professional preparation required by the program. Such evidence may include standardized test results, letters of recommendation, transcripts of all academic work attempted, and writing samples.

When there are openings for new students, applicants are normally admitted given official evidence of:

1. a baccalaureate or advanced degree from an accredited institution of higher education,
2. an undergraduate grade point average (GPA) and major field GPA of at least 2.75,
3. an acceptable score on each requisite examination, and
4. satisfactory additional materials required by the particular program.

The dean of the Graduate School makes the final decision on applications, based on recommendations from the program.

## Non-Degree-Seeking Student

Applicants may seek status as Non-Degree-seeking graduate students if they are visiting students, they do not intend to pursue a degree, or they want to participate in graduate workshops or institutes. Applicants must provide an official transcript showing completion of a baccalaureate or higher degree, with a GPA of at least 2.5.

The dean of the Graduate School admits Non-Degree-seeking students only upon recommendation of the program.

A Non-Degree student must maintain a GPA of at least 3.00.

Course work completed by Non-Degree students is not regarded as work toward a degree program. Therefore, Non-Degree students are not eligible for federal financial aid. Should a Non-Degree student apply for Degree-Seeking status and be admitted to the program the maximum hours of Non-Degree status work that can be applied to a degree program is nine semester hours. A Non-Degree student wishing to take more than nine hours may be allowed to do so contingent upon departmental recommendation. No credits taken as Non-Degree status may count as part of the residence requirement for a degree.

Non-Degree Education Certification students are exempt from the nine-hour limitation on non-degree courses because they take courses for State Department of Education certification. However, all other conditions regarding admission and registration that apply to Non-Degree students apply to Education Certification students.

Students wishing to change from Non-Degree to Degree-seeking must submit a new graduate application for review and approval by the program and the dean of the Graduate School.

## Graduate Study for Lifelong Learning

Lifelong learners often want to take graduate courses without enrolling in a specific program. They may want to prepare for admission to a graduate degree program at UMSL or elsewhere, explore a new discipline, take courses, workshops, or institutes for career advancement, or simply undertake personal enrichment experiences. Status as a Non-Degree Graduate Lifelong Learner, or graduate post-baccalaureate, allows students such flexibility. A Non-Degree Graduate Lifelong Learner has access not only to some graduate and undergraduate classes but also UMSL's libraries, laboratories, recreational facilities, etc.

Since graduate programs may limit the availability of their courses to students without full admission to their program, prospective Non-Degree Graduate Lifelong Learner should check the Bulletin for course prerequisites. The graduate program director in which they wish to take

courses can give prospective students more information. Programs and directors are listed online.

The Non-Degree Graduate Lifelong Learner program is administered by the Graduate School, which normally seeks approval from the unit before admitting students.

If a Non-Degree Graduate Lifelong Learner is later accepted to a graduate program, up to 9-12 hours of credit taken as a non-degree graduate student may be applied to a graduate degree or certificate program upon approval of faculty in that program. Again, communication with the program director is critical.

Applicants who submit a transcript documenting a baccalaureate degree or its equivalent from a U.S. university or a university in which instruction is in the English language may be admitted to UMSL as Non-Degree Graduate Lifelong Learner.

International students residing in the United States who do not satisfy the above requirement and are seeking admission as a Non-Degree Graduate Lifelong Learner must provide the transcript and the same evidence of proficiency in English as required for international graduate admissions.

Non-Degree Graduate Lifelong Learners pay graduate educational tuition and fees regardless of whether they take graduate or undergraduate courses.

Non-degree graduate students are not eligible to receive veteran's benefits or to hold campus-sponsored assistantships. Federal financial aid may be available to some non-degree students for preparatory coursework such as teacher certification; information is available in the financial aid office.

Like all graduate students, Non-Degree Graduate Lifelong Learner must maintain a 3.0 GPA. If the cumulative GPA is less than 3.0, the student will be given one automatic probationary semester. If, after one semester of probation, the student's cumulative GPA does not reach 3.0, the student may be granted a second probationary semester only upon approval of the Dean of the Graduate School. (Summer sessions are not counted as probationary semesters.) If the student fails to achieve a cumulative GPA of 3.0 following the second probationary semester, the student will be made ineligible to enroll as a non-degree or degree-seeking graduate student.

If at any time a student's term or cumulative GPA falls below 2.0, the Non-Degree Graduate Lifelong Learner will be ineligible to enroll as a non-degree or degree-seeking graduate student.

## Inter-University Graduate Exchange Students

Inter-University Graduate Exchange students are Washington University and St. Louis University students who enroll on their home campus for UMSL courses not offered on their own campus.

Degree-seeking graduate students at UMSL may also participate in these programs if their advisors and the Graduate School approve their requests. Certain restrictions apply.

## Unclassified Students

Students who are not qualified for admission to the Graduate School may be considered for undergraduate admission to UMSL as Unclassified Students by applying as an undergraduate non-degree student. Unclassified Students are considered Post-baccalaureate undergraduates, are not admitted to the Graduate School, may not take graduate-level courses, and do not receive graduate credit. Credits earned by an

Unclassified Student may not later be considered as graduate credits should the student subsequently be admitted to the Graduate School.

## Enrollment in Off-Campus and Continuing Education Courses

Students who have been admitted to the Graduate School may enroll in off-campus graduate courses without further application.

Students with a baccalaureate degree who have not been admitted to the Graduate School must be approved for admission as a Non-Degree graduate student to take Continuing Education courses for graduate credit.

## Admission of International Students

International students must meet all requirements for admission to the Graduate School. In addition, international students whose native language is not English and who have spent less than two of the last three years in an English-speaking country are required to submit scores from an internationally accepted standardized examination before a decision is made on admission. International Admissions information is available from the Office of International Student and Scholar Services. Phone 314-516-5229; Fax 314-516-5636; e-mail: [iss@umsl.edu](mailto:iss@umsl.edu).

Teaching assistantships will be awarded only to students with demonstrated oral English proficiency. Normally international teaching assistants may not teach during their first semester on campus.

When it is not possible for a student to take the required examination for reasons beyond personal convenience, the program to which the student has applied may develop alternate ways for that particular student to demonstrate English language competence prior to admission. The graduate dean must approve such alternative metrics.

Some programs may require applicants from other countries shall to provide a course by course report from a professional evaluation organizations in the United States. All students shall provide a statement of their financial situation and of the anticipated form of support for the period of graduate study.

## Enrollment

Students who have been admitted to the Graduate School may enroll in classes in any term within one calendar year after admission. New students are strongly urged to seek advising before registering. If an advisor is not assigned, then the graduate director in the program should be the student's first contact in the department. A current list of graduate program directors is found on the Programs page of the Graduate School website.

To remain in good standing, most students must enroll for at least one term each calendar year. Students not meeting this enrollment requirement will become inactive and be required to reapply. Information on re-enrollment requirements is on the Graduate School Website. If students reapply and are readmitted, then they will be subject to all regulations in effect at the time of readmission.

Doctoral study is an exception to the normal enrollment requirement. After they achieve candidacy, doctoral students must enroll each fall and spring semester until the degree is completed.

International students on student visas must enroll fulltime for each fall and spring semester.

## Final Semester Graduate Exam Fee

Graduate students must enroll in the semester in which they graduate. If they have completed required course work, thesis, or dissertation credits, then they must enroll in "Graduate Exam".

## Fulltime Study

The minimal fulltime course load is nine credit hours for a regular semester and/or the eight-week summer session.

## Graduate Equivalent Hours

In calculating credit hours for full-time enrollment, students may seek approval for the following semester hour equivalents:

1. Three equivalency hours for holding a 0.5 FTE Graduate Teaching Assistantship, Graduate Research Assistantship, Graduate Assistantship, or Graduate Instructor position; up to two equivalency hours for appointments between 0.25 and 0.49 FTE.
2. Three equivalency hours in the semester the student is preparing for comprehensive examinations. This semester-hour equivalency is allowed for a maximum of two semesters.
3. Eight equivalency hours after achieving candidacy. This semester-hour equivalency is allowed for a maximum of two fall and two spring semesters.
4. Eight equivalency hours for dissertation work. Once the graduate dean has approved a dissertation proposal, students may request equivalency hours until the eight-year time limit has expired.
5. Participation in approved required out-of-class experiences in specific programs. Please see your advisor for the approved list.

## Overloads

During the regular semester, students may not enroll in more than 12 hours. Normally no more than three credit hours may be taken in any four-week period.

Heavier than normal loads may be permitted by the graduate dean, upon recommendation by the program director, for a) students whose cumulative UMSL GPA is substantially above the program average; and b) students in good academic standing for whom an overload of one course will permit them to graduate during the term in which the overload is taken. Students are normally not allowed to take an overload in their first semester in Graduate School.

## Degree Program Plans

It is expected that graduate students will consult regularly with their advisors to plan a course of study that ensures timely completion of the requirements.

At least one-half of the credits for master's, educational specialist, and doctoral degree plans must be from 5000-level courses and above.

Within the major department, students normally may not take a 3000-level course for graduate credit. However, outside the department, a 3000-level course may be taken for graduate credit with the approval of students' advisors. Advisors must seek approval from the instructor, who may assign additional work commensurate with graduate status.

Courses numbered from 0 to 2999 may not be taken for graduate credit. No course applied to an undergraduate degree may be allowed in that student's graduate degree.



## Credit for Courses Taken Prior to Enrolling in a Graduate Program at UMSL

Transfer credit shall be granted only for approved graduate courses for which a grade of at least B-, or equivalent, was achieved from an accredited institution.

Degree credit may be allowed for up to three credit hours for institutes, workshops, clinics, and Continuing Education courses only if offered by an appropriately accredited institution of higher education. Only such courses that award a letter grade may be applied to a graduate degree.

Students may transfer up to 18 hours of work on a Graduate Certificate Program Plan to a Master's or Doctoral Program Plan, if the program offering the degree approves the transfer.

## Credit for Courses Taken at Other Universities After Enrolling in a Graduate Program at UMSL

Graduate students admitted to UMSL must petition in advance to take courses at another institution and apply the credit toward a graduate degree at UMSL.

With prior approval, regularly admitted graduate students are permitted to take a course not offered by UMSL at Washington University, St. Louis University, or Southern Illinois University-Edwardsville.

## Time Limitation

The maximum time allowed for completion of a master's or educational specialist degree is six years after the first course enrollment. Graduate work completed outside these time periods may not be included in the degree program except under extraordinary circumstances and then only after recommendation from the graduate program for approval by the dean of the Graduate School. An exception to the time limitation may be approved in advance with an authorized leave of absence.

## Leave of Absence

Graduate students who are forced to interrupt their studies for a period of one or more years should request a leave of absence from the university. In consultation with their advisors, students shall define the program modifications that the leave of absence requires. Requests must indicate the reason for leaving and the expected date of return to the university. Approval of the dean of the Graduate School is required.

The leave of absence is designed to suspend the requirement for continuous enrollment. It does not affect the maximum time limitation set for a degree program unless a specific exception is approved.

## Undergraduate Enrollment in 5000-Level Courses

Under special circumstances undergraduate students in good standing at UMSL may enroll in 5000-level courses for undergraduate credit. Approvals from the advisor, department chairperson, academic dean, and dean of the Graduate School are required. In rare cases, students subsequently admitted to the Graduate School may petition for graduate credit for 5000-level courses that they took as undergraduates, as long as those courses were not applied to their undergraduate degrees.

## Dual Enrollment for Senior Undergraduates

With the approval of the divisional and graduate deans, seniors who have a 3.0 cumulative g.p.a. and are within 15 hours of completing graduation requirements for the first bachelor's degree may dually enroll as an undergraduate and a non-degree graduate student and earn up to six semester hours of graduate credit. For students in education, the 15 hours to complete graduation requirements do not include the hours required to complete undergraduate student teaching.

Courses taken while dually enrolled may not be counted for both undergraduate and graduate degree requirements. Consult with divisional deans for additional requirements. 2+3 students are not eligible for dual enrollment.

Dual enrollment forms must be completed and approved by the Graduate School prior to registering for the graduate level courses. Dually enrolled students are required to register for the graduate level courses using the graduate career in MyView.

## Class Attendance

Only students who have previously paid fees may attend a class. Instructors are not authorized to allow students to attend classes if fees have not been paid. Students may not register and pay fees after the prescribed dates.

## Preregistration

Enrolled students may preregister for the next term during regular preregistration periods. Registration is not complete until all university fees are paid.

## Petitioning Into or Out of a Course

Students must receive the approval of their adviser and the course instructor to enroll in or withdraw from a course after registration.

## Entering a Course in Progress

Students wishing to enter a course in progress must have the approval of the instructor and their adviser. Only under exceptional circumstances may students enter courses after the first week of the semester.

## Dropping a Course

Students may drop courses before the end of the fourth week of a regular semester, the second week of an eight week session, or the first week of a four week session without receiving grades. At the end of this period and until the end of 12 weeks in a regular semester, 6 weeks in an eight week session, or 3 weeks in a four week session students may withdraw from courses with "Excused" grades providing they are passing the course and have the approval of the instructor and their adviser. Otherwise, a grade of F is given. Students who stop attending classes without officially dropping courses also receive grades of FN.

## Transcripts

The registrar will furnish transcripts of credits to a student upon written request. Transcripts are furnished to students' parents or guardians or other parties or institutions only if students have filed written consent with the registrar. There is a charge per transcript. UMSL students or alumni transferring to another University of Missouri campus may ask the UMSL Director of Admissions to furnish a transcript to the appropriate Office of Graduate Admissions.

Requests for transcripts by organizations either financially supporting a student or with fee compensation programs are not honored unless the student has filed a consent form with the registrar, authorizing the release of such records.

Transcripts are not issued to or for students who have financial obligations to the university until those obligations are paid in full.

## Academic Policies

### Grades

Faculty teaching graduate courses have complete discretion in assigning grades.

Point assignments for grades are as follows;

- A = 4.0
- A- = 3.7
- B+ = 3.3
- B = 3.0
- B- = 2.7
- C+ = 2.3
- C = 2.0
- C- = 1.7
- F = 0
- FN = 0
- EX = Excused
- DL = Delayed
- IP = In Progress
- S/U = A or B equivalent

The satisfactory/unsatisfactory (S/U) option is not normally available in courses for graduate credit. S/U grades may be given only for specific courses as requested by a school or college, with prior approval from the Graduate Council. Courses on the S/U grading system will carry no points toward calculation of the grade point average. A Satisfactory grade is defined as an A or B equivalent.

Students who stop attending classes without officially dropping courses receive grades of F or FN, depending on the amount of work completed.

Students may enter courses as auditors but may not change from audit to credit or credit to audit after the first week of class. Auditors are charged full fees and receive no academic credit.

### Delayed Grades

Delayed grades may be given when a student's work is of passing quality but is incomplete because of circumstances beyond the student's control. Delayed grades must be removed within two regular semesters (excluding summer) after the time recorded or they automatically become F grades. In such cases, course instructors may subsequently change F grades to other grades when all work has been completed. A student may not graduate with any delayed grades on their transcript except in research courses required for a subsequent degree.

### Failure/Non participation

When students do not complete any graded assignments but do not officially withdraw from the course or the university, instructors may assign

an FN. The F for Non-Participation cannot be changed to a grade and will be treated in GPA calculations as an F.

## Graduate Grade Appeals

In case of disputes regarding grades, graduate students shall follow the university Grade Appeal Process by first contacting the Department Chair. The policy is available on the Academic Affairs' Website.

## Grade Point Average (GPA)

UMSL calculates three types of GPA. At the end of each semester, the Term GPA is calculated on the courses attempted that semester. The Cumulative GPA on the transcript comprises all courses taken at UMSL for graduate credit, including courses that may not be a part of the degree program or certificate. The degree program or certificate GPA includes only the grades of those used to meet degree/certificate requirements for that program. The cumulative and degree or certificate program GPA must be at least 3.0 for a student to receive a graduate degree or certificate.

Grade modification is not an option for graduate students.

Any course work transferred from other universities, including other UM campuses, will not be included in any GPA calculation.

## Course Replacement

A student who fails to earn a cumulative GPA of 3.0 may request a recalculation of the cumulative GPA by substituting additional appropriate course work for courses in which a 3.0 was not earned. A maximum of two courses may be replaced during the entire graduate career at the University of Missouri-St. Louis, and all courses and grades remain on the student's record. The dean may approve the substitution if recommended by the graduate director of the student's program.

Once a student has completed a master's degree or certificate of advanced study, a final average for that degree or certificate is computed and cannot be modified. For that reason, courses for any graduate degree or certificate awarded may not be repeated, and no final GPA is affected by any subsequent coursework completed at UMSL.

Repeating courses may affect financial aid; applicants for Course Replacement are advised to contact the Financial Aid Office prior to applying for the replacement.

Course Replacement is not available for admission considerations or during a probationary or restricted admission period.

## Probation

Failure to make adequate progress jeopardizes students' potential to complete the degree as well as their financial aid. To provide students notice of inadequate progress at the end of each semester, graduate students with a cumulative GPA below 3.0 will be placed on probation. A program may also place a student on probation if faculty regard the student's progress as unsatisfactory. The Graduate School will inform students of their probation, with copies sent to the graduate director of the program, the Graduate Admissions Office, and the Financial Aid Office.

If at the end of the probationary semester the cumulative GPA is at least 3.0 and the student is making adequate progress toward the degree, then the probationary status is removed. A probationary student who fails to raise the cumulative GPA to 3.0 may, on the recommendation of the program, be allowed a second probationary semester.

## Dismissal

Upon recommendation of the program director, the Graduate School may dismiss any graduate student who does not make adequate progress.

A student who is on probation for more than two semesters during his/her program of study will be dismissed, unless the dean of the Graduate School approves an exception request for continuation from the program director. The Graduate School is responsible for notifying students, with copies sent to the graduate director of the program, the Graduate Admissions office, and the Financial Aid Office.

## Master's Degree Requirements

### Admission

Faculty in each master's degree program determine any eligibility standards beyond the minimum for admission to the Graduate School.

### Enrollment

All master's degree students shall be enrolled for credit for access to university resources, including advisement, data gathering, or examinations.

Full-time status for all graduate students is defined as at least nine credit hours of course work. Individual programs may require higher enrollments.

### Credit Requirements

A minimum of 30 semester hours of graduate credit is required for all master's degree programs. Specific programs may require a greater number of hours.

### Residence Requirement

The final two-thirds of the courses in a master's degree program must be completed at UMSL.

### Time Limitation

All courses included in a master's degree program, whether taken at UMSL or at another institution, shall have been completed within six years after enrollment in the first course.

### Credit From a Certificate Program

Students who have completed course credits in certificate programs may transfer those credits into a master's degree program with the program's consent, as long as the credits fall within the time limitation set for master's degrees. If the master's degree is in a different program from that awarding the certificate, then no more than one-third of the credits from the certificate program may apply to the master's degree. Multi-disciplinary programs may seek programmatic exceptions to this limit when the program undergoes the approval process.

### Dual Master's Degrees

With approval of the program and the Graduate School, students who have completed one master's degree may transfer appropriate credits to a second master's degree program. The number of transferable credits may not exceed one-third of the credit hours required by the second program. Subsequent transfers of the same courses to a third degree are not permitted.

With approval of the programs involved and the Graduate School, students may simultaneously pursue two master's degrees under the following conditions:

1. No more than one-third of the credit hours required by either program may be applied to both programs;
2. Students must obtain approval of both programs before completing 12 hours in either program.

Multi-disciplinary programs may seek programmatic exceptions to the one-third limit when the program undergoes the approval process by addressing specific allowable transfers between those two degree programs.

## Master's Degree for Doctoral Students

Doctoral students may receive a master's degree in their program for work they have completed toward a doctoral degree. The program establishes the requirements for such a master's degree. However, the requirements should, in principle, be similar to those for master's degrees offered by the program.

Doctoral and educational specialist students may also receive a master's degree for work they have completed toward a doctoral or Ed.S. degree in another program provided:

1. they apply no more than two-thirds of the master's degree courses to their doctoral degree program;
2. they have been admitted to the master's degree program; and
3. they have obtained the approval of the advisors from both programs and from the Graduate School.

Credit from the master's degree must constitute less than half the total credits required for the doctorate.

Multi-disciplinary programs may seek programmatic exceptions to these limits when the program undergoes the approval process.

## The Master's Degree Program

Master's degree students must meet with an advisor within the first semester of the program to design a program plan that meets program requirements and the students' interests.

To receive the master's degree, students who have met all degree requirements shall apply for graduation by filing an M-4 Graduation Application, which will include the student's Degree Program, no later than the graduation deadline in the semester in which they plan to graduate.

## Comprehensive Examination, Scholarly Paper, or Exit Project

Each program requiring a comprehensive examination for the master's degree informs the Graduate School of:

1. the number of times the program will allow its students to take a comprehensive examination, and
2. the period of time that the program will allow between the first and final attempt to pass the examination.



## Master's Thesis

Programs recommend Graduate Faculty members to serve on committees for capstone projects. The graduate dean shall review and may appoint the committee.

Master's degree students who write a thesis must submit to the dean of the Graduate School one copy of the thesis by the posted university deadline, normally six weeks before the end of the term in which graduation is sought. The chairperson of the thesis committee is responsible for verifying that the final draft of the thesis is acceptable to the graduate dean and the thesis committee.

Students disseminate the thesis according to current Graduate School procedures.

## Educational Specialist Degree Requirements

### Admission

Each educational specialist degree program shall determine any eligibility standards beyond the minimum for admission to Graduate School.

### Enrollment

All educational specialist degree students shall be enrolled for credit for access to university resources, including advisement, data gathering, or examinations.

Full-time status for all graduate students is defined as at least nine credit hours of course work. Individual units may require higher enrollments.

### Credit Requirements

A minimum of 60 semester hours of graduate credit is required for all educational specialist degree programs. Individual programs may require a greater number of hours.

### Residence Requirement

Normally, at least one half of the courses in an educational specialist degree program must be completed at UMSL.

### Time Limitation

All courses included in an educational specialist degree program, whether taken at UMSL or at another institution, shall have been completed within six years after enrollment in the first course.

When educational specialist students have earned a master's degree at any institution, appropriate credits may be applied toward meeting the requirement for the specialist degree, subject to program approval. Such credits shall constitute less than half of the total credits required for the educational specialist degree. Credit for courses taken for a master's degree is exempt from the six-year time limitation.

### Filing the Degree Program Plan

An educational specialist degree student enrolled shall file an approved program plan with the Graduate School before completing two-thirds of the credit hours required in the program. Students may petition the dean of the Graduate School to change the plan after it has been filed.

## Comprehensive Examination, Scholarly Paper, or Exit Project

Each program requiring a comprehensive examination for the specialist degree informs the Graduate School of:

1. the number of times the program will allow its students to take a comprehensive examination, and
2. the period of time that the program will allow between the first and final attempt to pass the examination.

Programs recommend Graduate Faculty members to serve on committees for capstone projects. The graduate dean shall review and may appoint the committee.

## Thesis

Programs recommend Graduate Faculty members to serve on committees for capstone projects. The graduate dean shall review and may appoint the committee.

Educational Specialist degree students who write a thesis must submit to the dean of the Graduate School one copy of the thesis by the posted university deadline, normally six weeks before the end of the term in which graduation is sought. The chairperson of the thesis committee is responsible for verifying that the final draft of the thesis is acceptable to the graduate dean and the thesis committee. Students shall disseminate the thesis according to current Graduate School procedure.

## Doctoral Degree Requirements

### Admission

Each doctoral degree program may determine eligibility standards beyond the minimum for admission to the Graduate School.

### Credit Requirements

A minimum of 60 semester hours of graduate credit is required in every doctoral degree program. Programs may require a greater number of hours for their programs, and individual students may be required to take additional hours.

### Enrollment

Full-time status is defined as nine credit hours per semester. Programs may require higher enrollments than this. After students achieve candidacy and complete the residence requirement, they must remain enrolled during fall and spring semesters until they complete the degree. Failure to register in any regular semester will result in termination from the Graduate School. If students so terminated decide to reapply and if they are readmitted, then they will be subject to all regulations in effect at the time of readmission, and will be required to enroll for at least one credit hour for each semester since their last enrollment.

When doctoral students are enrolled for research credit, the credit amount may vary, but the student must register for all work required, and the credit total may exceed the minimum requirements.

## Classification of Doctoral Students

There are two stages in doctoral degree work:

- A pre-candidate is a student who has requirements to fulfill in addition to the dissertation, including course work, and/or comprehensive examinations.

- A candidate is a student who has met all degree requirements except the completion of the dissertation.

## Time Limitation

The maximum amount of time allowed for completion of a doctoral degree is eight years after the first course enrollment.

The maximum of 12 hours of graduate credit completed as a post-master's degree student prior to admission to a doctoral program may apply toward a doctoral degree. Inclusion of such course work is subject to program approval and must have been completed within eight years of the time the doctoral degree is awarded. Exceptions to this regulation must be justified on academically defensible grounds and approved by the graduate dean prior to filing the program plan.

When doctoral students have earned a master's degree at any institution, appropriate credits may be applied toward meeting the requirement for the doctoral degree, subject to program approval. Such credits shall constitute less than half of the total credits required for the doctorate. For example, for a doctoral degree requiring 90 hours of work beyond the bachelor's degree, no more than 44 credits from a master's degree may apply to the doctoral degree. Credit for courses taken for a master's degree is exempt from the doctoral program's eight-year time limitation.

## Residence Requirement

The majority of credits used to satisfy requirements for a doctoral degree must be completed at UMSL. The residence requirement may be satisfied with dissertation credit hours, graduate institutes, and credit courses taken through Continuing Education, as well as regular courses.

Students who enter the Ed.D. or Ph.D. in Education degree programs with an Education Specialist (Ed.S.) degree from an accredited university, or with an Advanced Certificate approved by the Missouri Department of Elementary and Secondary Education, may satisfy the residence requirement by completing one-third of the required credits at UMSL.

Residency normally requires that doctoral students successfully complete a minimum of 15 hours over two consecutive terms, which may include summer. The dean of the Graduate School may grant exceptions upon recommendation by the program.

## Comprehensive Examinations

Each program will determine the number of times a comprehensive examination may be taken by a student. The department or college must file with the Graduate School a statement specifying:

1. the number of times the program will allow its students to take a comprehensive examination, and
2. the maximum and/or minimum period of time the program will allow between the first and final attempt to pass the comprehensive examination.

The Comprehensive Examination Committee consists of no fewer than three members of the UMSL graduate faculty appointed by the graduate dean upon recommendation of the program.

An oral examination may not substitute for the standard written portion.

## Advisors

Upon entering the program, each doctoral student will have an assigned program advisor who is a member of the Graduate Faculty. As early

as possible in a doctoral student's program, but no later than when the student achieves candidacy, the program will recommend, in consultation with the student, a doctoral dissertation advisor.

## Application for Candidacy

Doctoral students may apply for candidacy after passing all required comprehensive and language examinations, written or oral, and successfully completing all course work. The program director approves the application and forwards it to the dean of the Graduate School for final approval.

## Doctoral Dissertation Committee

The Doctoral Dissertation Committee consists of at least four members of the Graduate Faculty who can contribute their expertise to the dissertation study: the committee chair, and at least one other member from the program. A recognized scholar from outside the university may serve as a member upon the recommendation of the program and approval of the graduate dean. The graduate dean reviews and approves the committee membership and any changes in the committee membership.

## Doctoral Dissertation

All doctoral degrees require a dissertation as a final component of the program. The dissertation must be written on a subject approved by the candidate's doctoral dissertation committee, must embody the results of original and significant research and must be the candidate's own work.

## Dissertation Proposal

Before a student may conduct substantial research for the dissertation the committee must approve a proposal after a formal defense. The student submits the approved proposal for review and approval by the dean of the Graduate School. An approved dissertation proposal in no way implies a contract between the university and the student. Depending on the outcome of the research, the dissertation may require substantially more work than anticipated when the proposal was approved. The termination of a line of research and the adoption of a substantially new dissertation project requires the preparation, formal defense, and acceptance by the Graduate School of a new dissertation proposal.

## Preliminary Approval

One copy of the dissertation, certified as complete and provisionally acceptable to the committee, shall be submitted to the graduate dean at least six weeks prior to commencement. The Dean of the Graduate School may seek advice and make suggestions to the committee about content and style before approving the dissertation.

## Defense of Dissertation

Normally the approved Doctoral Dissertation Committee serves as the Oral Defense of Dissertation Committee. The graduate dean may appoint one additional qualified voting member to the Defense of Dissertation Committee from the Graduate Faculty within the University of Missouri System.

After deliberating on the oral defense of the dissertation, the Defense of Dissertation Committee votes on whether the defense was successful. The defense shall be deemed unsuccessful if there are two negative votes, even if outnumbered by positive votes. An abstention will be considered a negative vote. A student failing an oral defense shall have the opportunity for one additional defense before the same committee. The Defense

of Dissertation Committee shall determine the timing and format of the subsequent defense.

Final examinations are open to the public.

The decision of the Defense of Dissertation Committee is final. The report of the final examination is due to the Graduate School no later than two days after the examination.

## **Dissertation Abstracts**

Two different abstracts are required. The publishing company requires an abstract of a maximum of 350 words that is published with the announcement of the dissertation defense. The abstract forming the second page of the dissertation should be no more than 600 words.

## **Dissertation Format**

Only high quality copies are acceptable with the following margins throughout: left margin 1" inches; top, bottom, and right margins, 1 inch. Final copies may be submitted electronically following current procedures on the Graduate School Electronic Thesis and Dissertation homepage or in person in Room 421 Woods Hall on paper. Original hard copies of the dissertation must be typed on good quality paper, and they must be legible and neat in order to be accepted by the Graduate School.

In matter of style and documentation, the custom of the discipline shall be followed.

The chairperson of the dissertation committee is responsible for verifying that all the changes suggested by the graduate dean and the dissertation committee have been incorporated in the final draft of the dissertation or have been discussed further with the graduate dean or the committee.

Students disseminate the dissertation according to current Graduate School procedures.

## **Graduate Certificate Program Requirements**

### **Admission**

Each graduate certificate program may determine eligibility standards beyond the minimum for admission to and enrollment in the Graduate School.

### **Credit Requirements**

A minimum of 18 hours of graduate course work is required for a graduate certificate. At least 12 of these hours must consist of courses drawn from the list of core courses for the particular certificate program. At least 12 hours must be completed as a graduate student at UMSL. At least nine hours must be at the 5000 level or above. No more than six hours may be independent study.

### **Filing the Program Plan**

A graduate student enrolled in a certificate program is required to file a certificate program plan with the Graduate School before completing the first two-thirds of the number of hours required in the program. Changes made in a certificate program plan after it has been filed must be submitted to the Graduate School.

# College of Arts & Sciences

## General Information

The College offers a wide range of accredited baccalaureate, master's and doctoral degrees and multi-disciplinary certificates through 14 departments, the School of Social Work and the Gender Studies Program.

- Anthropology (B.A.)
- Biochemistry & Biotechnology (B.S., M.S.)
- Biology (B.A., B.S., M.S., Ph.D.)
- Chemistry and Biochemistry (B.A., B.S., M.S., Ph.D.)
- Criminology and Criminal Justice (B.S., M.A., Ph.D.)
- Economics (B.A., B.S., M.A.)
- English (B.A., M.A., M.F.A.)
- Modern Languages (B.A. with concentrations in French, Japanese, and Spanish)
- History (B.A., M.A.)
- Interdisciplinary Studies (B.I.S.)
- Liberal Studies (B.L.S.)
- Mathematics and Computer Science (B.A., B.S., M.A., M.S., Ph.D.)
- Philosophy (B.A., M.A.)
- Physics and Astronomy (B.A., B.S., M.A., Ph.D.)
- Political Science (B.A., B.S.P.A, M.A., Ph.D.)
- Public Policy and Administration (M.P.P.A.)
- Psychology (B.A., M.A., Ph.D.)
- Social Work (B.S.W., M.S.W.)
- Sociology (B.A., B.S.)
- Gender Studies (Certificate)

The College of Arts and Sciences consists of some 220 full-time faculty members in the following departments and school, each offering work in specific undergraduate degree programs: anthropology, biology, chemistry, criminology and criminal justice, economics, English, languages and cultures, history, mathematics and computer science, philosophy, physics and astronomy, political science, psychology, social work, and sociology.

In addition the College offers a Bachelors Degree in Biochemistry and Biotechnology, a Bachelor of Liberal Studies and a Bachelor of Interdisciplinary Studies.

Graduate study degree programs, administered through the Graduate School, are also offered in the following departments of the College of Arts and Sciences: biochemistry and biotechnology, biology, chemistry, criminology and criminal justice, economics, English, history, mathematics and computer science, physics and astronomy, philosophy, political science, psychology, and social work. . An interdisciplinary master's degree in public policy administration is offered in cooperation with the College of Business Administration. Specific degree requirements for both undergraduate and graduate degree programs are described in the departmental sections which follow this general information on the college.

Coursework in the evening or through on-line instruction is made available by all departments of the College and the School of Social Work. The following degree programs can be completed in the evening:

- Bachelor of Arts in Biology, Chemistry, English, History, Mathematics, and Psychology.
- Bachelor of Science in Biology, Chemistry, Computer Science, Criminology and Criminal Justice, and Mathematics.
- Bachelor of Social Work
- Bachelor of Liberal Studies

Consult the website of the department in which you plan to major for details on degree requirements and a three year schedule of planned course offerings.

## Requirements for Undergraduate Study

All majors in the College of Arts and Sciences, including Bachelor of Liberal Studies, must meet the following requirements:

- Requirements of their chosen baccalaureate degree (i.e., B.A., B.S., BSW., etc.) in accordance with the policies of the College of Arts and Sciences, explained below.
- Requirements of the department for their selected major or interdisciplinary program.
- Requirements for the University's general education (<http://bulletin.umsl.edu/generaleducationrequirements>) & university requirements.
- Completion of INTDSC 1003 University Studies for all students admitted to UMSL with fewer than 24 academic credit hours.

Detailed information concerning all degree requirements can be found by visiting The College of Arts & Sciences Advising and Student Resources web site (<http://www.umsl.edu/divisions/artscience/Advising%20and%20Student%20Resources>).

## Academic Policies

### Grade Requirements

To graduate, all majors in the college must satisfy one of the following grade point options:

- Have a minimum UMSL campus grade point average of 2.0 and have met all other grade point restrictions for the degree or program.

### Cultural Diversity Requirement

To expand cultural awareness, students in some academic units may be required to complete a course that emphasizes Asian, African, Middle Eastern, Latin American, Pacific aboriginal, Native American, or a comparable culture. Courses that satisfy this requirement involve substantial material independent of the cultures' interactions with European cultures. If a course focuses on one facet of a culture, it must treat the topic within the context of the culture as a whole. These courses are also coded with the initials [CD] for Cultural Diversity. A list of courses which satisfy this requirement can be found in the introductory section of this Bulletin.

### Residency Requirements

Transfer students must complete at least 30 of the last 36 hours of their degree program in residence at the University of Missouri-St. Louis.

Unless otherwise specified, a transfer student must complete 12 hours of graded work at UMSL at the 2000 level or above within the minimum number of hours required for each major.

Unless otherwise specified, a transfer student must complete at least six hours of graded work at UMSL at the 2000 level or above within the minimum number of hours required for each minor. Students should consult the minor department for specific residency and grade requirements.

## Specific Baccalaureate Degree Requirements

### Course Requirements

After fulfilling the general education and specific major degree requirements, students are to take the remaining hours required to complete the bachelor's degree from courses (which the appropriate department has evaluated as being of university-level quality) from one or more of the following areas or their university-quality equivalents at other institutions: anthropology/archaeology, art (appreciation, history, studio), astronomy, biology, chemistry, communication, criminology and criminal justice, economics, English, geology, history, mathematics/computer science, media studies, modern languages (French, Japanese, Spanish), music (appreciation, history, performance), philosophy, physics, political science, psychology, social work, sociology, theatre and dance, business, education, engineering, or interdisciplinary. Other areas or courses not listed require approval by the chair of the student's department.

### Bachelor of Arts (B.A.)

All B.A. degree candidates must successfully complete a curriculum which includes a departmental major or an approved interdisciplinary field. A major must include at least 30 credit hours but no more than 45 hours. The College offers the B.A. degree in anthropology, biology, chemistry, economics, English, history, mathematics, modern languages, philosophy, physics, political science, psychology, and sociology.

### Foreign Language Requirement

Candidates for the B.A. degree are required to complete 13 credit hours or the equivalent in proficiency in one foreign language. Foreign language guidelines are as follows:

1. Students entering with no high school language units must enroll in Language 1 or may enroll in the 2115 series (see section 4).
2. Students with the degree of proficiency equivalent to 13 hours of college-level work in French, German or Spanish may obtain exemption by passing the department's placement exam. The specific dates for the exam are posted on-line or may be obtained from Languages and Cultures at 314-516-6240.
3. Native speakers of language other than English may meet the foreign language requirement by presenting a transcript from a university or secondary school of their native country. The department will certify native speakers of those languages which are taught at the university. Those who are proficient in other languages must submit certification of competence to the college.
4. Language 2115 A, B, C (Intensive) will satisfy the foreign language requirement. Aptitude testing is required prior to enrollment. For more information, call the Department of Languages and Cultures at 314-516-6240
5. Students may not repeat, for either credit or quality points, an elementary course if they have already completed a higher-level course for which the elementary course, or its equivalent, is a prerequisite.

## Applied Music and Studio Art

Students not majoring in music may count no more than eight hours in music ensemble performance (EN PER 1400 (p. 39), EN PER 1410 (p. 39), EN PER 1500 (p. 39), EN PER 1520 (p. 39), etc). Students in the college not majoring in studio art may count any number of studio art hours toward a degree in the college. This includes transfer credit.

## Bachelor of Science (B.S.)

The College offers the B.S. degree in mathematics, biochemistry and biotechnology, biology, chemistry, biochemistry, computer science, criminology and criminal justice, economics, physics (with emphasis in applied physics, astrophysics, engineering physics, or optical biophysics), and sociology. The requirements are generally the same as for the B.A. degree with the following exceptions:

1. More credit hours in the major discipline may be counted toward satisfying the 120 hours needed for graduation. See departmental degree requirements for information.
2. Not all departments require foreign language proficiency. See departmental degree requirements for information.

## Bachelor of Liberal Studies (BLS)

(See Interdisciplinary Programs (p. 169) for complete description)

## Bachelor of Interdisciplinary Studies (BIS)

(See Interdisciplinary Programs (p. 169) for complete description)

## Bachelor of Science in Public Policy and Administration (B.S.P.A.)

The B.S.P.A. degree program is administered through the Political Science Department and offers two emphasis areas. Public Administration emphasizes management in the public and nonprofit sectors. Public Policy allows focus on a particular policy area with attention to analytic training and research skills.

## Bachelor of Social Work (B.S.W.)

The School of Social Work offers the B.S.W. degree, stressing the scientific and applied aspects of social work.

## Minors

A number of minors are available at UMSL. Some are offered by individual departments, while others, such as Classical Studies are interdisciplinary in nature and involve a number of departments. The requirements for the various minors are listed in either the departmental or interdisciplinary sections of this Bulletin.

## Special Programs

### Certificate Programs

Graduate and undergraduate certificate programs are offered in archaeology biochemistry, biotechnology, forensic economics, labor studies, gerontology, studies in religions, trauma studies, tropical and conservation biology, nonprofit organization management and leadership, psychology-clinical re-specialization, gender studies, and writing.



## International Studies Certificate

In cooperation with International Studies and Programs and other Colleges, the College offers certificate programs in African, East Asian, European, Greek, International, and Latin American studies. The College also cooperates in offering the International Business Certificate.

## Departmental Honors

Majors in the following departments may pursue departmental honors: biology, chemistry, economics, English, history, modern languages, and political science.

## Cooperative Education and Internship Programs

Cooperative education and internship programs are available for students seeking career-related employment while enrolled in school. These programs afford Arts and Sciences students an opportunity to gain practical experience and earn a substantial income. Co-ops and internships are administered through Career Services, 278 Millennium Student Center.

## College of Arts and Sciences Extension

Credit courses are offered at off-campus locations through the continuing education branch of the College of Arts and Sciences. These courses are open to UMSL students and qualify for regular academic credit toward degrees in the college. In addition, noncredit courses are offered in a range of disciplines within the college.

## Anthropology, Sociology, and Languages

### General Information

The Department of Anthropology, Sociology and Languages in the College of Arts and Sciences at the University of Missouri-St. Louis offers majors in Anthropology, Modern Language, and Sociology. The faculty of this department are distinguished scholars and teachers who promote an interdisciplinary approach to learning about the biological, cultural, linguistic, and historical diversity of humanity. We are committed to advancing the understanding of the social and cultural forces that shape the beliefs, behaviors, and relationships of individuals as members of the larger society. We also teach about the impact of globalization on these forces. Visit the individual pages for the Anthropology, Sociology and Languages majors, minors, and certificates.

### Degrees Offered

- Bachelor of Arts in Anthropology
- Bachelor of Arts in Modern Language
  - Concentrations in French, German, Japanese, and Spanish
- Bachelor of Arts in Sociology
- Bachelor of Science in Sociology

## Anthropology

### General Information

The aim of anthropology is to understand the diversity of humans. For 100 years we have studied the cultures of the world, teaching people how to

see themselves more clearly through the eyes of those who are different from themselves and how to work with the underlying humanity that unifies all cultural differences.

Anthropology is the study of humans through all time and space. The discipline considers our struggle to adapt to and survive in the natural and social environments and to improve our lot in the face of perpetual change. Anthropologists teach how cultures evolve and the role of individuals and groups in the invention and perpetuation of cultural beliefs, behaviors, symbols, and systems. Anthropologists have accumulated in-depth knowledge of hundreds of cultures and use this to understand better our own cultural beliefs, actions, and institutions, as well as those of people from other cultures. As the science of cultures, anthropology brings a powerful perspective to bear in understanding the emerging global order. Cross-cultural and evolutionary insights and knowledge help us envision how we can incorporate vast human diversity into a unified world order of peace, prosperity, justice, and opportunity.

### Degrees and Areas of Concentration

A Bachelor of Arts in Anthropology focuses on applied and theoretical skills. The anthropology faculty are actively involved in cultural anthropology, writing systems, archaeology, linguistic anthropology and biological anthropology research at home and abroad.

### Cultural Anthropology

Faculty conduct research in St. Louis, Los Angeles, Ghana, South Africa, China, Japan, and Native American communities. Their research encompasses studies in health care choices of elder citizens, museum studies, gender and sexuality, body culture and sports, girl's culture, writing systems, culture diversity principles, Neandertal health and more. Opportunities abound for students to pursue diverse research experiences on a vast range of topics on human actions, beliefs and organization.

### Archaeology

Faculty are engaged in regional and global research. Students may join faculty in excavations of local historic sites, and a Bronze Age Mycenaean palace in Greece. The program also has an archaeology lab and library with one of the largest collections of artifacts from eastern Missouri.

### Biological Anthropology

Faculty members are active in the study of human evolution, bioarchaeology, dental archaeology paleoanthropology (fossil record of human origins) and human variation. Students can study Forensic Anthropology and work with the program's own collection of 19th century skeletal remains.

### Student Experience

Students may work closely with faculty in designing their personal course of study and carrying out their own research projects in any of the above fields of study. Students have presented research results at professional meetings, in published papers, and at government and community agencies for use in planning and development. Students are encouraged to participate in the program's network of internships, providing an opportunity to practice newly acquired skills. As a capstone experience, all students, under faculty supervision, complete a significant independent research project, culminating in written and oral reports to the department students and faculty. The program encourages study abroad and has scholarship funds to assist. There is an active Association of Student Anthropologists that sponsors speakers and social activities.

Paid undergraduate positions are available on a competitive basis to anthropology majors as teaching assistants and faculty research assistants.

## Minor in Anthropology

The minor in anthropology is designed to offer students a flexible introduction to the fundamentals of the discipline to complement their major field of study. A minor is advisable for anyone planning a career with intercultural or international dimensions, where knowledge of cultural systems, environments, values, and symbols is useful.

## Certificate in Archaeology

The certificate in archaeology provides applied training in both laboratory and field methods to students who could be hired in the field of cultural resource management and historic preservation. Internships can be arranged with the UMSL archaeology lab or with a local institution.

## Career Outlook

The B.A. in Anthropology equips the student for employment in almost any area in which a bachelor's degree is sufficient and a sensitivity to cultural values and diversity is important. Graduates have found employment as university professors and lawyers and in archaeology research programs, urban development, planning programs, health care delivery, human services, business, government service, teaching, computer systems design, and university administration. Anthropology is excellent preparation for graduate and professional training in administration, the helping professions, development work, law, environmental studies, international and human resource areas of business, and in many other areas, depending upon individual interests. Many UMSL anthropology graduates have gone on to advanced training in master's, doctoral, and professional programs in respected universities around the country. For more career information, contact the program at 314-516-6020 for an appointment to talk with an appropriate faculty member or to request an information packet.

## Undergraduate Studies

### General Education Requirements

Majors must satisfy the university and college general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>). Any foreign language may be used to meet the language requirement for the B.A. degree.

### Degree Requirements

#### Bachelor of Arts in Anthropology

All required courses for the major must be completed with a grade of C- or better. The following courses are required:

ANTHRO 1005	Introduction To Biological Anthropology	4
(p. 41)		
ANTHRO 1011	Introduction To Cultural Anthropology	3
(p. 41)		
ANTHRO 1019	Introduction To Archaeology	3
(p. 41)		
ANTHRO 3202	History and Theory of Anthropology	3
(p. 41)		
ANTHRO 4315	Professionalism and Practice In Anthropology	3
(p. 41)		

Select three courses in Anthropology numbered 2000-2999 <sup>1</sup>	9
Select three courses in Anthropology numbered 3200-3299 in addition to ANTHRO 3202 (p. 41).	9
Select one of the following:	3
ANTHRO 4000 Ethnographic Field Research Methods (p. 41)	
ANTHRO 4100 Field Methods in Archaeology (p. 41)	
ANTHRO 4200 Field Methods in Biological Anthropology (p. 41)	
Select 2 additional credit hours of methods courses in Anthropology numbered 4000-4311.	2
<b>Total Hours</b>	<b>39</b>

<sup>1</sup> The three courses must come from two different subfields: Cultural Anthropology, Archaeology, or Biological Anthropology.

The total number of hours required for the major is 39. Students may elect to take up to, but not to exceed, 12 additional hours in anthropology courses of their choice.

At the end of the program, students should have these competencies:

- **Discipline-Specific (Content) Knowledge**  
Graduates will be able to discuss the importance cultural diversity, thus preparing them to function in multicultural or international settings. Graduates will understand the common evolutionary origins that unify all cultural differences, as well as human biological variation within our shared humanity. Graduates will develop in-depth knowledge of the culture of a particular region of the world.
- **Communication Skills**  
Graduates will develop social science writing skills, including writing of a research proposal for a grant agency and a substantial research report. Graduates will develop oral presentation skills, including presenting a formal research report.
- **Information Management/Quantitative Skills**  
Graduates will master research methods in one of the subfields of anthropology (cultural anthropology, biological anthropology, archaeology). Graduates will learn to design and conduct an original research project, working in close cooperation with faculty.
- **Valuing/Ethics/Integrity**  
Graduates will be able to discuss and articulate the professional ethics and codes of conduct of the discipline.
- **Critical Thinking Skills**  
Graduates will develop the ability to apply anthropological concepts in performing critical analysis of broad historical trends and complex social issues. Graduates will be able to value cultural diversity, thus preparing them to function in multicultural or international settings.
- **Application/Internship Skills**  
Graduates will gain hands-on experience in the application of anthropological concepts to real life and will be able to apply anthropological theory to real-life experience.

### Residency Requirement

Undergraduate majors must complete a minimum of 17 hours of upper-level (3000-5000) Anthropology courses in residence, including:

ANTHRO 3202	History and Theory of Anthropology	3
(p. 41)		

ANTHRO 4315 Professionalism and Practice In Anthropology (p. 41)	3
Select one of the following:	3
ANTHRO 4000 Ethnographic Field Research Methods (p. 41)	
ANTHRO 4100 Field Methods in Archaeology (p. 41)	
ANTHRO 4200 Field Methods in Biological Anthropology (p. 41)	
Select two additional courses numbered from ANTHRO 3000-4999.	6

### Anthropology Minor

There are three possible emphases in the minor: Cultural Anthropology, Archaeology, and Biological/Forensic Anthropology.

Select one of the following:	3-4
ANTHRO 1011 Introduction To Cultural Anthropology (p. 41)	
ANTHRO 1019 Introduction To Archaeology (p. 41)	
ANTHRO 1005 Introduction To Biological Anthropology (p. 41)	
Anthropology numbered 2100-2199	3
Anthropology numbered 3200-3299	3
Anthropology numbered 4000-4999 in addition to ANTHRO 4315 (p. 41)	3
ANTHRO 4315 Professionalism and Practice In Anthropology (p. 41)	3
<b>Total Hours</b>	<b>15-16</b>

A minimum of 15 anthropology credit hours is required. All required courses for the minor must be completed with a grade of C- or better.

### Archaeology Certificate

ANTHRO 1019 Introduction To Archaeology (p. 41)	3
ANTHRO numbered 2100-2199 with an archaeological emphasis.	3
ANTHRO numbered 3200-3299 with an archaeological emphasis.	3
Archaeology methods courses at the 4100-4199 level, including ANTHRO 4100 (p. 41), Field Methods in Archaeology.	5
Select one of the following:	3
ANTHRO 4326 Internship In Archaeology (p. 41)	
ANTHRO 4312 Cultural Resource Management And Historic Preservation (p. 41)	
<b>Total Hours</b>	<b>17</b>

### Sample Four Year Plan

<b>First Year</b>			
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>	<b>Hours</b>
INTDSC 1003 <sup>1</sup>	1 Foreign Language 1002		5
ANTHRO 1005	4 General Education		3
General Education <sup>3</sup>	3 ANTHRO 1019		3

ANTHRO 1011	3 ANTHRO 2000-2999 level course	3	3
Foreign Language 1001		5	
		<b>16</b>	<b>14</b>
<b>Second Year</b>			
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>	<b>Hours</b>
ANTHRO 2000-2999 level course		3 ANTHRO 2000-2999 level course	3
Foreign Language 2101		3 General Education	6
General Education		6 Elective or minor	6
Elective or minor		3	
		<b>15</b>	<b>15</b>
<b>Third Year</b>			
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>	<b>Hours</b>
Elective or minor		3 General Education	6
ANTHRO 3202		3 ANTHRO 3200-3299 course	3
ANTHRO 3200-3299 level course		3 Elective or minor	6
General Education		3	
ENGL 3100		3	
		<b>15</b>	<b>15</b>
<b>Fourth Year</b>			
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>	<b>Hours</b>
ANTHRO 3200-3299 level course		3 ANTHRO 4315	3
General Education		6 ANTHRO 4000-4311 Methods course	2
ANTHRO 4000, 4100, or 4200 <sup>2</sup>		3 General Education	3
Elective or minor		3 Elective or minor	7
		<b>15</b>	<b>15</b>
<b>Total Hours: 120</b>			

- 1 INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.
- 2 ANTHRO 4100 typically offered in summer only.
- 3 The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science or Humanities general education course.

*PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*



## Courses

### ***ANTHRO 1005 Introduction To Biological Anthropology: 4 semester hours***

Topics include evolutionary theory and its development, the evolution/creationist debate. Mendelian & population genetics, the evolutionary place of humans within the animal kingdom, anatomical and behavioral characteristics of primates, fossilization, primate evolution, the human evolutionary fossil record, biological variability in modern humans, race as a biological concept, and applied biological anthropology. In addition to 3 hours of lecture, 1 hour per week is spent in lab classifying ancient human fossils, observing monkeys and apes at the zoo, and doing other projects. Satisfies the Natural Science and Mathematics (SM) breadth of study requirement.

### ***ANTHRO 1011 Introduction To Cultural Anthropology: 3 semester hours***

Cultural anthropology is the study of human beings as creatures and creators of society. This course is an introduction to that study which aims to demonstrate how the basic concepts and techniques developed by cultural anthropologists help us to understand societies of various degrees of complexity, including our own. We will consider topics such as language, kinship, gender, ethnicity, economics, politics, religion, and social change in a broad comparative framework. Major goals are an increased awareness of the social and cultural dimensions of human experience; the diversity and flexibility of human cultures; and processes of intercultural communication and conflict. This course satisfies the Cultural Diversity Requirement.

### ***ANTHRO 1019 Introduction To Archaeology: 3 semester hours***

Archaeology is a subfield of anthropology that studies past human societies from their material remains. Explores the development of archaeology as a scientific discipline. Archaeological methods and theories will be explained using case studies from the continents of Africa, Asia, Australia, Europe and the Americas. Satisfies the Cultural Diversity requirement.

### ***ANTHRO 1021 The Body In Culture: 3 semester hours***

This course will compare uses of the body as a social signifier in Western and non-Western cultures. It will explore how culture shapes the images, uses and meanings of the human body. It concentrates on different historical and beliefs in five areas: how the body works; sex and gender; eating manners and food; pain and punishment; beauty and bodily mutilation. This course satisfies the Cultural Diversity requirement.

### ***ANTHRO 1025 World Cultures: 3 semester hours***

An ethnographic survey of the major culture areas of the world (Africa, North and South America, Europe and Oceania). Satisfies the Cultural Diversity requirement.

### ***ANTHRO 1033 World Archaeology: 3 semester hours***

Discusses some of the greatest discoveries in archaeology from prehistoric cultures to ancient civilizations of Africa, Asia, Australia, Europe and the Americas. Archaeological examples may include early human origins at Olduvai Gorge in Tanzania, the pyramids of ancient Egypt, the Maya and Aztec of Mexico, the rise of civilization in Mesopotamia, England's Stonehenge, the Roman city of Pompeii, upper Paleolithic cave paintings in France and Spain, and American Indian pueblos of the Southwest. This introductory course is designed for non-anthropology majors, or for those who are considering the major. Satisfies the Cultural Diversity requirement.

### ***ANTHRO 1037 The Wonders of Greece: Introduction to Greek History and Culture: 3 semester hours***

Same as HIST 1037. Our democracy and culture have been heavily influenced by Greek civilization. This course will introduce students to the culture and civilization of Greece in order to provide a better understanding of our own society. The course will cover the political and military history, art, literature, philosophy, and science of Greece from prehistoric to modern times, with special emphasis on Greek civilization's enduring democratic and cultural ideals. The course will include screening of films and use of online resources.

### ***ANTHRO 1038 Byzantine History and Culture: 3 semester hours***

Same as HIST 1038. This course introduces the history of the Byzantine Empire from the fourth through the fifteen centuries. Covering more than a millennium of history, this course focuses on selected aspects of the empire's history, while adhering to a basic chronological frame. We will examine religious developments (monasticism, theological controversy, the Catholic-Orthodox Schism); military and cultural interactions with neighbors (Crusaders, Islam); and Byzantine culture, particularly art, literature, and architecture.

### ***ANTHRO 1041 Sex And Gender Across Cultures: 3 semester hours***

This course considers womanhood, manhood, third genders, and sexuality in a broad cross-cultural perspective. The focus of the course is on the diverse cultural logics that separate females, males, and sometimes third genders into different groups in different societies, with the male group usually being the more prestigious one. Focusing on the indigenous nonWestern cultures, this course examines gender roles and sexuality within the broader cultural contexts of ritual and symbolism, family, marriage and kinship, economy, politics, and public life. This course will help students understand what it is like to be male or female in non-Western cultures. This course fulfills the Cultural Diversity Requirement.

### ***ANTHRO 1051 Sport, Culture, and Society: 3 semester hours***

Same as SOC 1051. What is the relationship between sport, culture, and society? This course takes a critical and analytical approach to the relationship between sport and socio-cultural issues and institutions: values, education, socialization, deviance, violence, inequality, the mass media, and economics. Students will investigate the functions of sport in various cultures and societies, analyze the relationship between sport and social problems, and develop policy recommendations that address these issues.

### ***ANTHRO 1052 The Olympic Games: Ideals And Reality: 3 semester hours***

What would the ancient Greeks think of the modern Olympic Games? In this course, we examine whether the Olympic Games are living up to their ancient Greek ideals. We begin studying the history and philosophy of the ancient Olympic festival in an effort to understand the personal, educational, and political nature of the Olympic ideal. Next we examine the historical and contemporary reality of the modern Games from the perspective of athletes, spectators, and society at large. Based on these accounts, we critically evaluate the Games' success and failure with respect to their ideals. Finally, we develop constructive solutions to the problems we identify, suggesting practical ways to revise the Olympic ideals and/or improve Olympic reality.

**ANTHRO 1091 Introductory Topics In Anthropology: 3 semester hours**

This course features special and current topics at the introductory level in the areas of social, cultural and physical anthropology and archaeology. The course examines the basic concepts and provides an understanding of the development of new trends and areas of study in the field of Anthropology. Topics will focus on the comparative study of non-Western cultures such as ecological practices in tribal societies; religious practices in prehistoric cultures; the roles of women across cultures; etc. Topics may vary and the course may be repeated provided topic is different. This course satisfies the Cultural Diversity requirement.

**ANTHRO 1095 Brief Overview Of The Four Fields Of Anthropology: 1 semester hour**

Through the use of videos, readings, and the online course management system, this course provides a brief overview of the four traditional fields of anthropology: biological, archaeological, cultural, and linguistic anthropology. This course is designed for video instruction and offers minimal direct interaction with the instructor.

**ANTHRO 1163 Disagreement, Difference, Diversity: 6 semester hours**

Same as PHIL 1163. This interdisciplinary course will combine material from philosophy, anthropology, and sociology to examine the ways we encounter and accommodate disagreement in our daily lives. The unifying thread is our ability to deal with various sorts of opposition: differences of opinion, differences in practice, and differences in how we construct and address both biological and cultural variation. The course will combine units on informal logic and applied ethics from philosophy together with units on the social construction of difference and the understanding of human diversity from anthropology and sociology.

**ANTHRO 1710 Native American Literature: 3 semester hours**

The course surveys the literature of American Indians from its oral tradition of myth, legend, song, and oratory through its modern forms. The course satisfies the ethnic literature requirement for Missouri State Certification in Secondary Education and the College of Arts and Sciences Cultural Diversity requirement.

**ANTHRO 2035 Ancient Greek Civilization And Culture: 3 semester hours**

A survey of the history, language, literature, art, science, and philosophy of the ancient Greeks from prehistory to the Roman conquest. It covers the glamorous Minoan-Mycenaean civilization, the rise of classical Greek civilization and the golden age, the history of the city states such as Athens and Sparta, and the Hellenistic period under Alexander the Great and his descendants. Examines the nature of the ancient Greek language, surveys literary classics such as the Iliad and the Odyssey, and describes the archaeology of Greek myths based on the ongoing UM-St. Louis archaeological project in Greece. Discusses the rise of humanism, the ancient Olympic Games, and the legacy of ancient Greece in Western civilization.

**ANTHRO 2100 Languages and World View: 3 semester hours**

Same as FGN LANG 2100 and SOC 2200 Prerequisites: Completion of two semesters of one foreign language at the college level. This course investigates the extent to which peoples' linguistic and cultural background informs their understanding of the world. Experts on a variety of major Western and non-Western languages will introduce students to differences in ideas about time, space, human relationships, and other issues based on language. The course will also analyze common cultural misunderstandings among native speakers of English and speakers of other languages.

**ANTHRO 2105 Human Variation: 3 semester hours**

This course will look at the variation that exists within our own species, both between and within populations. It will investigate the evolutionary and genetic basis of human variation, as well as its diversity, adaptive significance, and distribution. Topics covered will include: body shape and physiology, blood groups, susceptibility to disease, and skin color. It will survey historical attempts to classify humans into different "races"; assess definitions of race as a solely cultural construct; and critique attempts to link race, intelligence and performance.

**ANTHRO 2109 Archaeological Field School: 3-6 semester hours**

Prerequisites: Consent of instructor. Introduction to field methods in archaeology and to the techniques of recording, storing, analyzing, and reporting archaeological findings. Experience is gained through participation in a field research project including excavation and survey projects. Emphasis is placed upon research design and implementation and upon the use of archaeological data in describing and explaining human behavior.

**ANTHRO 2111 Cultures Of East Asia: 3 semester hours**

An ethnographic and historical survey of the various people of East Asia including Japan, China, North and South Korea, Hong Kong and Macau. Includes an examination of the varying cultural and social developments within and through the historical, geographical, and cultural environments. This course satisfies the Cultural Diversity requirement.

**ANTHRO 2114 Cultures Of The Near And Middle East: 3 semester hours**

A study of the cultural diversity and unity of the peoples of the Near and Middle East. Emphasis on historical and ethnological relationships, social and political structure, religious beliefs and contemporary problems. This course satisfies the non-Euro-American requirement.

**ANTHRO 2117 Greek History And Culture: 3 semester hours**

Same as HIST 2117. Greek civilization has had a deep impact on contemporary society in art; social; political; and economic organization; philosophy; law; medicine; and science. This course covers major aspects of Greek history and culture from antiquity to the present. It considers the major political and military events of Greek history, as well as important aspects of Greek culture, including sports and the history of the Olympic Games, literature, philosophy, and mythology.

**ANTHRO 2118 Modern Greek History and Culture: 3 semester hours**

Same as HIST 2118. A history of Modern Greece, from the fall of Constantinople (1453) to the present, with an emphasis on social, cultural, and political developments. The course will provide a chronological framework of events and it will utilize art, literature, and folklore, along with traditional historical sources, to gain a better understanding of the richness of modern Greek history and culture.

**ANTHRO 2120 Native Peoples Of North America: 3 semester hours**

A survey of Native Peoples of North America including the prehistory, ethnographic and linguistic groupings, social organization, and cultural systems of these cultures.

**ANTHRO 2121 Native American Spirituality: 3 semester hours**

This class will look at the important role of spirituality in American Indian ways of life. This course covers indigenous peoples of the United States and Canada, from prehistoric times to the present. It will look at traditional worldviews and their preservation in contemporary times, including the use of symbols to define tribal identities; religious rituals and practices; and the relationship between humans, animals, and nature. Satisfies Cultural Diversity requirement.

**ANTHRO 2123 Cultures Of Oceania: 3 semester hours**

An introduction to the original cultures and peoples of the South and Western Pacific: New Guinea, Australia, New Zealand, Samoa, Hawaii, Easter Island, etc. Focus is on art, religion, language, relationships to the environment, economics, politics, social groupings, and how these intertwine to form distinctly adaptive cultures in one of the least understood regions of the world. This course satisfies the Cultural Diversity requirement.

**ANTHRO 2124 Cultures Of Africa: 3 semester hours**

A basic ethnographic survey of African cultures, with attention to social groupings, tribalism, religion, language, social change, and the ecological relationship between humans and nature. This course satisfies the Cultural Diversity requirement.

**ANTHRO 2126 Archaeology Of Greater St Louis: 3 semester hours**

Discussion of Ice Age hunters and gatherers, moundbuilders, fur traders, farmers and industrial workers from the history of the Greater St. Louis Community. The physical testimony to their lives remains buried beneath city streets and buildings. Archeology is our link to this cultural legacy. Through use of archeological data and historical sources, this class will explore human social and cultural developments in St. Louis.

**ANTHRO 2131 Archaeology Of Missouri: 3 semester hours**

An introduction to the prehistoric American Indian cultures of Missouri and adjacent areas from 20,000 years ago to the coming of the Europeans. Examines the development of prehistoric cultures in Missouri from small bands of hunters and gatherers to moundbuilding, agricultural societies and discusses the decline of indigenous cultures as they came into contact with European civilization. Satisfies the Cultural Diversity requirement.

**ANTHRO 2132 Archaeology Of North America: 3 semester hours**

Examines the archaeological record of human developments throughout prehistoric North America. Topics of discussion include the origins of human culture in America, the processes of prehistoric cultural development in the different regions of the continent, and archaeological approaches to explaining the behavior of North America's prehistoric inhabitants. Satisfies the Cultural Diversity requirement.

**ANTHRO 2134 Archaeology Of The Inca, Aztec, And Maya: 3 semester hours**

Provides an overview of human social and cultural developments in Mesoamerica and Andean South America from the first settlements over 20,000 years ago to the Spanish conquest. Focuses on events leading to and including the establishment of Classic Mayan and Aztec societies, and discusses changes that led to what was perhaps the largest nation on earth for its time, the Inca. Satisfies the Cultural Diversity requirement.

**ANTHRO 2191 Special Topics In Non-Western Culture: 3 semester hours**

This course focuses on a specific non-western culture, or geographically related groups of cultures. Ethnographic and/or archaeological cultures are chosen and their ecological, economic, social, religious, cosmological, political, ethnic, linguistic and other cultural domains are examined. Students are exposed to basic concepts and knowledge for understanding diverse cultures in their historical and/or contemporary contexts of development and relationship. Topics will vary. Satisfies Cultural Diversity Requirement.

**ANTHRO 2192 Anthropological Perspectives on Western Culture: 3 semester hours**

This course focuses on a specific Western culture or geographically-related group of cultures utilizing ethnographic and/or archaeological sources. Ecological, economic, social, political, ethnic, religious, linguistic and cultural domains will be examined. Students are exposed to basic anthropological concepts for understanding diverse cultures in their historical and/or contemporary contexts. Topics will vary.

**ANTHRO 3202 History and Theory of Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1005, ANTHRO 1006, ANTHRO 1011, or ANTHRO 1019. An overview of the history and theory of anthropology from the Victorian era to today with an emphasis on putting theory into practice. The purpose of the course is to help students understand where anthropology has come from and where it may be going, and to teach students how to apply theory to specific questions and problems.

**ANTHRO 3209 Forensic Anthropology: 4 semester hours**

Same as CRIMIN 3209. Prerequisites: ANTHRO 1005, or BIOL 1102, or junior standing, or consent of instructor. Students learn basic dental and skeletal anatomy and the methods used by biological anthropologists and archaeologists to collect and analyze human skeletal remains, including how to determine age and sex of skeletal remains, identify ethnic markers, determine stature and handedness, and identify the presence of trauma and/or pathology. Also covers the role of the forensic anthropologist in crime scene investigations and human rights issues. In the weekly lab section students will have an opportunity for hands-on application of techniques to analyze skeletal remains.

**ANTHRO 3210 Applied Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. A description and analysis of the methods, principles and use of anthropology in solution of practical problems associated with the changing conditions of our times. The course will examine a wide variety of cross-cultural case studies.

**ANTHRO 3211 Language and Society: 3 semester hours**

Same as SOC 3211. Prerequisites: ANTHRO 1011, or SOC 1010 or consent of the instructor. Variable topics in the subfield of linguistic anthropology will be explored. The focus of the course may include study of communication as part of our evolutionary heritage, the use of language as an index of social and cultural change, language and gender, or other topics.

**ANTHRO 3212 Medical Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science or consent of instructor. An examination of the growing interaction between anthropology and medicine, and the increasing use of anthropologists in medical and health-care settings. In addition to teaching current theory in medical anthropology, the course focuses on anthropologically-based skills essential to those working in health-related fields.

**ANTHRO 3214 Writing Systems of the World: 3 semester hours**

ANTHRO 1011 or consent of instructor. This course is an introduction to the comparative study of writing systems from around the world. It explores the origin and development of Sumerian cuneiform, Mayan glyphs, Egyptian hieroglyphs, Chinese characters, alphabets and syllabaries. It encompasses time periods from the decipherment of ancient languages to the intersections of writing and culture found in the contemporary world.



**ANTHRO 3215 Aging Across Cultures: 3 semester hours**

Same as GERON 3215. Prerequisites: ANTHRO 1011 or PSYCH 1003 or SOC 1010, or consent of instructor. This course examines the wide ranging variability in the roles of older people across different cultures and the effects these have on older people, their families, and their societies.

**ANTHRO 3216 Cognition Across Cultures: 3 semester hours**

Prerequisites: ANTHRO 1011 or introductory course in another social science, or consent of instructor. This course explores cognition - perception, knowledge and thought - as a set of social and cultural processes. An introduction to methods for understanding the human mind in context. It will cover key debates, including: cross-cultural variation in thought processes (cognitive relativity vs. psychic unity), the relation between physiology and consciousness, ethnoscience, the social and cultural construction of reality, the different ways that social contexts affect the way people think, the implications of the way knowledge is distributed across society, the social and cultural basis of logic.

**ANTHRO 3220 Social Statistics: 3 semester hours**

Same as SOC 3220. Prerequisites: SOC 1010 or ANTHRO 1011 and MATH 1020 or MATH 1030. Issues and techniques of statistical analyses relevant to quantitative social science research, e.g. elementary probability, measures of central tendency and dispersion, measures of relationships including linear regression and correlation, inferential and nonparametric statistics. The course includes an introduction to computer-based statistical analysis.

**ANTHRO 3225 Ritual, Death And Sports: Archaeology Of Greek Mythology: 3 semester hours**

Prerequisites: ANTHRO 1019 or ANTHRO 1011 or consent of instructor. Since the beginning of our existence, humans have pondered the mysteries of life and death and have strived to find meaning in a constantly changing world. In Western civilization, Greek mythology and religion represent humanity's earliest attempts to deal with the greater forces that affect our lives, which found expression in the great religious and athletic festivals, such as the Olympic Games. We will study the myths, rituals, religious beliefs of the ancient Greeks and how these were expressed in sports and art, in order to get a glimpse of the supernatural. The sources of our exploration are two: the fascinating archaeological discoveries of ancient Greek sites and relevant readings from the ancient Greek literature.

**ANTHRO 3227 Monsters & Victims: Women Dramatis Personae in Greek Tragedy & Contemporary Drama: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. This course explores female dramatic figures in ancient Greek tragedies that represent women either as victims and/or monsters. From Iphigenia, Alcestis, and Hecuba to Clytemnestra, Phaedra and Medea, it analyzes issues such as the role of sex, gender, female sexuality, ritual and domestic violence in the image-making of women as either scapegoats or monsters by the major Greek tragedians, particularly Euripides. It explores contemporary adaptations by several women playwrights in light of theoretical readings by feminist critics.

**ANTHRO 3228 People and Plants: 3 semester hours**

Prerequisites: ANTHRO 1011 or ANTHRO 1019 or consent of instructor. This course is designed to introduce students to complex relationships between people and plants. We will focus on how plants are perceived, managed, and used across human societies. Topics span the ages and include collection of wild plants and "Stone Age" diets; the origins of agriculture in Ancient Egypt, Mesopotamia, China, and the Americas; the development of crops and GMOs; industrial agriculture; organic gardening; and the wilderness-to-table movement. While emphasis will be on food plants, we will also discuss the use of plants as medicines, cosmetics, dyes, and construction materials.

**ANTHRO 3229 Economic Archaeology And Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011 or ANTHRO 1019 or consent of instructor. Course examines economic organization and behavior in a crosscultural context. It looks at the various ways anthropologists have approached the study of economy, and explores how cultural factors such as relations of power, gender, kinship, and ideology affect economic organization in ancient and modern societies. Most of the course will focus on pre-industrial societies (including hunter-gather, tribal, and complex societies), and will address issues of subsistence strategies, craft production and specialization, trade and exchange, money, and markets. It will also briefly explore how modern communities around the globe are responding to contemporary processes like capitalism and globalization.

**ANTHRO 3235 Women In Subsaharan Africa: A Contemporary Perspective: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. Examines important traditional concerns of anthropologists such as the nature of kinship obligation and privilege; gender as a basis for the division of labor; social organization for formal and informal networks; and ritual and ceremony. In addition we look closely at the changing role of African women, as related by African women testing the very limits of what is "socially and culturally acceptable." The roles women continue to play in politics, comprehensive development (i.e. cultural and economic), and evolving social structures are reviewed to gain an understanding of the historical and contemporary mandates for their social action. This course fulfills the Cultural Diversity requirement.

**ANTHRO 3236 Sex Trafficking in Cross-Cultural Perspective: 3 semester hours**

Prerequisites: ANTHRO 1041, GS 2150 or GS 2102 or consent of instructor. This course introduces the history of and current issues in the international sex industry, including human trafficking, slavery, and prostitution in Europe, Asia, Africa, South America, and North America. It will evaluate the power structures (political, economic, and military institutions) and the process, organization and structure of the industry within the context of nationality, ethnicity, and class, with particular emphasis on voluntary (immigration) and forced (displacement) population migration. Finally, it will look at current legislation and methods to control this growing problem, especially in the United States.

**ANTHRO 3237 Japanese Popular Culture: 3 semester hours**

Same as SOC 3237. Prerequisites: ANTHRO 1011. Through biographies, fiction, films, anime, manga, television, music, magazines, and other media, the course investigates a range of topics related to Japanese history, social diversity, subcultural identity, gender, demographic change, and media. The study of Japanese popular culture is ideal for understanding theoretical issues such as the construction of gender and sexuality, identity formation, nationalism, emerging youth cultures, and the processes of globalization and localization. Satisfies University cultural diversity requirements.

**ANTHRO 3270 Human Ecology, Cultural Collapse, and Sustainable Developments: 3 semester hours**

Prerequisites: ANTHRO 1019 or consent of the instructor. Human interactions with the natural environment will be explored by reviewing approaches, concepts, and tools from ecological anthropology and archaeology. Case studies based on archaeological, ethnographic, and ethnological data will be analyzed and discussions expanded to include information about past and present, sustainable human-environmental interactions, policies, and contributing institutions.

**ANTHRO 3290 Advanced Topics In Archaeology: 3 semester hours**

Prerequisites: ANTHRO 1019, or consent of instructor. Selected topics in archeology with a strong theoretical and methodological approach. Requires substantial reading and writing. May be repeated with consent of department.

**ANTHRO 3291 Current Issues In Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. Selected topics in social, cultural and physical anthropology, with emphasis on current issues and trends in the field of anthropology. May be repeated provided topic is different.

**ANTHRO 4000 Ethnographic Field Research Methods: 3 semester hours**

Prerequisites: ANTHRO 1011, SOC 1010, or consent of Instructor. Ethnographic field research is the basis of cultural anthropological inquiry. This course emphasizes hands-on training in the collection and analysis of ethnographic data, including participant observation, taking and managing field notes, key informant interviewing, content analysis and the preparation of ethnographic field reports.

**ANTHRO 4005 Special Research Methods in Cultural Anthropology: 1-3 semester hours**

Prerequisites: ANTHRO 1011 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in cultural anthropology and/or linguistic anthropology. May be repeated provided the topic is different.

**ANTHRO 4100 Field Methods in Archaeology: 3 semester hours**

Prerequisites: ANTHRO 1019 or consent of instructor. Advanced instruction in archaeological field methods including techniques of recording, storing, analyzing, and reporting archaeological findings. Experience is gained through participation in excavations and/or surveys. Emphasis is placed upon research design and implementation and the use of archaeological data in describing and explaining human behavior.

**ANTHRO 4105 Special Research Methods in Archaeology: 1-3 semester hours**

Prerequisites: ANTHRO 1019 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in archaeology. May be repeated provided the topic is different.

**ANTHRO 4160 Geographical Information Systems in Anthropology and Sociology: 4 semester hours**

Same as SOC 4160. Prerequisites: ANTHRO 1005, or ANTHRO 1011, or ANTHRO 1019, or SOC 1010, or consent of instructor. Instruction in use of GIS software to record and analyze findings in archaeology, biological anthropology, cultural anthropology, and sociology. Emphasis is placed upon research design, development of data collection methodologies, and the use of GIS in describing and explaining human behavior and its relationship to the physical environment.

**ANTHRO 4200 Field Methods in Biological Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1006, SOC 3220 or equivalent, or consent of instructor. Course material based on primate behavior, demographics, and morphology. Research techniques for ethological and primatological studies, including the design of research protocols, development of data collection methodologies, analysis of morphological and behavioral data, and the scientific description of findings. Students are required to conduct observations of primates at the St. Louis Zoo and participate in the Undergraduate Research Symposium.

**ANTHRO 4205 Special Research Methods in Biological Anthropology: 1-3 semester hours**

Prerequisites: ANTHRO 1005 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in biological anthropology. May be repeated provided the topic is different.

**ANTHRO 4305 Special Research Methods in Anthropology: 1-3 semester hours**

Prerequisites: ANTHRO 1005 or ANTHRO 1011 or ANTHRO 1019 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in anthropology and may combine skills from cultural anthropology, linguistic anthropology, archaeology, and/or biological anthropology. May be repeated provided the topic is different.

**ANTHRO 4307 Community Based Research in Anthropology: 3 semester hours**

Prerequisites: Junior standing, ANTHRO 1011, ANTHRO 3202, and completion of junior-level writing requirement. An advanced course in qualitative/ethnographic modes of inquiry, building on research and analytical skills learned in previous courses. Some quantitative methods may supplement the research when appropriate. Students experience the process of discovery, representation, presentation, and justification based on fieldwork and/or archival research. The focus is on applying anthropological knowledge to practical issues faced by communities and institutions in the St. Louis area. May be repeated provided the topic is repeated.

**ANTHRO 4309 Archaeological Field School: 3-6 semester hours**

Prerequisites: Consent of instructor. Advanced methods in field archaeology and laboratory analysis. Emphasis is placed on sampling, the use of theory in guiding field and laboratory work, advanced field techniques, and speciality analysis. Opportunities are provided for the development of field and laboratory leadership skills. Independent research is encouraged.

**ANTHRO 4310 Laboratory Methods In Archaeology: 3 semester hours**

Prerequisites: ANTHRO 1019, SOC 3220 or equivalent, or consent of instructor. An advanced laboratory analysis and curation methods class. The emphases are 1) mastery of general lab methods and procedures, and 2) development of independent analysis skills in one or more specialty areas such as lithics, ceramics, computer graphics, statistical methods, paleoethnobotany, experimental analysis, and soils.

**ANTHRO 4312 Cultural Resource Management And Historic Preservation: 3 semester hours**

Prerequisites: ANTHRO 1019 or Consent of Instructor. This course will introduce proper practices of cultural resource management and historic preservation. It provides a technical and theoretical bridge between anthropological archaeology and its application to the management of resources. Among the issues covered will be relevant legislation, the phased approach to archaeological and historical research, state and federal review procedures, proposal writing, interacting with clients, consulting with native peoples, and public and professional ethics and standards. This course will provide hands-on experience. Because one of the skills most sought by project managers and employers is writing competence, it will be writing intensive.



**ANTHRO 4315 Professionalism and Practice In Anthropology: 3 semester hours**

Prerequisites: Senior standing and consent of Instructor. The capstone course for anthropology majors, ideally taken in the final semester of the senior year. Students will learn to apply the anthropological knowledge and ethics gained in previous courses within professional settings. Skills include developing a CV; applying to graduate schools and jobs; making oral presentations; and writing grant proposals, public policy recommendations, consulting reports, and diplomatic communications. Final senior exit project will be reviewed by Anthropology faculty members.

**ANTHRO 4316 Senior Research Project: 3 semester hours**

Prerequisites: Senior standing and consent of the instructor. For undergraduates who have excelled in their coursework and wish to conduct original research. Students will work with a faculty member with expertise relevant to the research topic. This course offers students the opportunity to build upon strong research, analytic and writing skills. Completion of this course will result in the writing of a thesis, publication of an article, presentation at a professional meeting, or other work that exemplifies high achievement.

**ANTHRO 4325 Internship In Cultural Anthropology: 1-3 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate public or private institution, business, or government office. Cultural Anthropology internships are aimed at providing students with opportunities to learn to apply their knowledge of social and cultural process and diversity to practical situations in the market place of ideas, goods, and services. Specific placements will be selected to match student's interests and career goals.

**ANTHRO 4326 Internship In Archaeology: 1-6 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate public or private institution, business, or government office. Archaeology internships are aimed at providing students with opportunities to work with professional archaeologists in public and private research environments including laboratories and curation centers. Specific placements will be selected to match student's interests and career goals.

**ANTHRO 4328 Internship In Museum Studies: 1-3 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate museum or other exhibition oriented institution. Museum internships are aimed at providing students with opportunities to work with professional museologists to learn skills relating to areas such as exhibition, curation, public programming, research, and publication. Specific placements will be selected to match student's interests and career goals.

**ANTHRO 4329 Internship In Physical Anthropology: 1-3 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate institution, lab, or research setting related to forensics, primate behavior and biology, human genetics, population, environmental policy, and other domains related to physical anthropology.

**ANTHRO 4350 Special Study: 1-3 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports, or field research. No student may take more than a cumulative total of 6 hours of Special Study.

**ANTHRO 4391 Current Issues In Anthropology: 1-4 semester hours**

Prerequisite: ANTHRO 1011 or consent of instructor. Selected topics in social, cultural, and physical anthropology, with emphasis on current issues and trends in the field of anthropology. May be repeated. Non-majors may register for ANTHRO 2191.

**ANTHRO 5440 Cultural Aspects Of Aging: 3 semester hours**

Same as GERON 5440. Prerequisites: Graduate status or consent of the instructor. Focuses on the variety of solutions encountered in different sociocultural contexts for dealing with the problems, challenges and opportunities of growing old. It is organized around topics that are of concern to both anthropology and social gerontology: the status of the aged, intergenerational relations, aging in modernizing societies, ethnic dimensions of aging in complex societies, health in later life, death and dying. Both in-depth case studies and cross-cultural comparisons are examined in an effort to arrive at a culturally informed assessment of factors affecting aging and the aged in the United States.

**ANTHRO 5592 The History of the Visual Arts in American Museums: 3 semester hours**

Same as HIST 5592 and ART HS 5592. Prerequisites: Graduate standing and consent of instructor. This course is an introduction to selected topics in the history of museology, focusing on art and anthropology museums as sites for the interpretations of art and culture, and as contested meeting grounds for various views of history and culture.

**ANTHRO 6135 Foundations Of Museology I: 3 semester hours**

Same as ART HS 6035 and HIST 6135. Prerequisites: Consent of Director of Museum Studies Program. Concepts for understanding museums in their social and cultural context; history of museums; museology and general social theory; information transfer vs. meaning-making models; museums and communities; the changing role of museums; museums as complex organizations; process models of museology.

**ANTHRO 6136 Foundations Of Museology II: 3 semester hours**

Same as ART HS 6036 and HIST 6136. Prerequisites: Consent of Director of Museum Studies Program. Audience-centered approaches to museology; visitor research and learning theory; philosophical and practical considerations in museum planning; the physical design of museums; creativity; exhibit and program development; collections and curation; the challenge of diversity; the future of museums.

**ANTHRO 6137 Museum Organization and Operations: 3 semester hours**

Same as: ART HS 6037 and HIST 6137. Prerequisites: Consent of Director of Museum Studies Program. This course looks at museum organization and operations in the 21st century. As museums become more focused on visitors, communities, and private donors, their structures, staffing, and practices have changed. This course introduces students to the wide range of museum professions, the evolving function of museums, the effects of new technologies, and the challenges of administration and funding in constrained economic circumstances. The course includes scrutiny of ethical issues such as disputed collections, intellectual property rights, organizational conflicts, and community collaboration and planning.

**ANTHRO 6138 Museum Studies Master's Project: 4 semester hours**

Same as ART HS 6038 and HIST 6138. Prerequisites: Consent of Director of Museum Studies program. Research and writing/exhibit development on a selected topic.

**ANTHRO 6139 Practicum In Exhibit & Program Development: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. Development of exhibits and related education programs. Students work as teams with museum professionals to develop and implement an exhibit concept that integrates design, education, and marketing from the onset. Methods in planning, flow charting, budgeting, team dynamics and related skills.

## Languages and Cultures

### General Information

### Degrees and Areas of Concentration

Languages and Cultures in the Department of Anthropology, Sociology, and Languages offers course work in French, Japanese and Spanish, leading to the B.A. in Modern Language degree, and a field of concentration in each of these languages for students seeking the B.S. degree in education. In addition, the program offers courses in English for Academic Purposes, Arabic, Chinese, German, Modern Greek, and Latin.

Minors may also be earned in the department. For details, see specific requirements for the minor, which appear later in this section.

### Study Abroad

Language students who have been at the University of Missouri-St. Louis at least one semester and have studied the language for at least one year may receive credits for formal study abroad. Students must present a list of language course descriptions from the institution abroad to receive prior consent of the department, and must present a transcript for evaluation upon return to receive credit for those courses. Exchange programs are available with several universities in foreign countries. For information, please contact the Study Abroad Office at <http://www.umsl.edu/services/abroad/>.

### Alumni Scholarship

Qualified junior and senior language majors may apply for the Modern Language Alumni Scholarship, which is renewable each semester on a competitive basis. For information, please contact the department.

### Marcus Allen Memorial Scholarship

Qualified students of French may apply for the Marcus Allen Memorial Scholarship which is awarded on a competitive basis and must be used within one semester of the award. For information please contact the department.

### Baldini Family Scholarship

Qualified full-time UMSL students pursuing a Modern Language degree with teacher certification may apply for this scholarship which is awarded on a competitive basis and must be used within one semester of the award. For information, please contact the department.

### Community College Scholarship

Qualified community college students may apply for the Modern Language Community College Scholarship to be used for educational fees toward the enrollment in third semester or higher courses in French, German, Japanese, or Spanish. This scholarship must be used within one semester of the award. For information, please contact the department.

### German Scholarships

Students of German may apply for the German Scholarship. Funds may be used toward educational fees for German courses during the following semesters or toward study abroad in a German-speaking country. For information please contact the German section coordinator

### Departmental Honors

Candidates for departmental honors in Modern Languages must meet the following requirements:

1. Achieve a GPA of 3.5 in the major for all hours attempted beyond the first two semesters. (Language Courses 1001 and 1002)
2. Maintain an overall GPA of 3.0.
3. Successfully complete an honors thesis or project.

### Undergraduate Studies

#### General Education Requirements

Each language major must satisfy the general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>) of the university and the general education requirements of the College of Arts and Sciences.

#### Specific Requirements or Restrictions

Students entering with no high school language units must enroll in Language 1001 or may enroll in Language 2115. Language 2115 (a, b, and c) is the intensive study of a language and will satisfy the foreign language requirement. 2115a, 2115b, and 2115c are co-requisites and must be taken concurrently. All three sections must be completed with a grade of C- or better, to satisfy the foreign language requirement.

A grade of D in a Language 1001 course is a passing grade but not an entrance grade for a Language 1002 course. A grade of D in a Language 1002 course is a passing grade but not an entrance grade for a Language 2101 course or its equivalent. A grade of D in a Language 2101 course fulfills the language requirement, but is not an entrance grade for a higher-level course.

Demonstration of a high level of proficiency may affect the number of hours required for the major. Native or heritage speakers of a language should consult with the department concerning appropriate placement and advising. Students with previous language coursework should contact the department for language placement testing and advising. Students may not take for credit an elementary course if they have already completed a higher-level course for which the elementary course, or its equivalent, is a prerequisite.

### Degree Requirements

All courses for the major must be passed with a grade of C- or better. No course required for the major may be taken on a satisfactory/unsatisfactory (s/u) basis with the exception of those taken abroad as part of a university program that has received departmental approval.

### Bachelor of Arts

All students seeking a B.A. in a Modern Language must successfully complete FL 2100 Languages and World View, and must meet the departmental requirement of a minimum of 33 hours in French and German, 37 hours in Japanese and 36 hours in Spanish (excluding Language 1001 and 1002). The maximum number of hours that may be taken in the major is 45 (including Language 1001 and 1002). In addition,

students seeking the B.A. in Modern Language who desire a teaching certificate must also FGN LANG 4589 (p. 50) (same as SEC ED 4589 (p. 50)), Curriculum and Methods of Teaching Foreign Languages, FGN LANG 4590 (p. 50) (same as SEC ED 4590 (p. 50)), Foreign Language Teaching Seminar, and fulfill the professional secondary education requirements of the College of Education.

## Bachelor of Science in Education

Those students seeking the B.S.Ed. degree, with a concentration in a modern language, are required to complete 30 hours of work (excluding credit for Language 1001 and 1002) of which 9 hours must be on the 4000 level. Students working toward a degree in elementary education, with related work in a modern language, should consult the College of Education concerning their program.

## Post Baccalaureate Certification Students

Students who have a bachelor's degree and are seeking teacher certification in a language must have completed 30 hours in that language and will be required to take the Simulated Oral Proficiency Interview exam to determine proficiency. Students who do not demonstrate sufficient proficiency will be required to take additional coursework in the language.

## Transfer Students

Transfer students majoring in one of the modern languages must complete at UMSL a minimum of 12 graded hours in language courses at the 3000 level or above with a grade point average of 2.0 or better in these courses.

## Native Speakers

Native speakers must complete at least two courses at the 3000 level and four courses at the 4000 level to obtain a major in their native language.

## Specific Requirements for Concentration in French

Each major with a French concentration must complete the following courses:

FRENCH 2101	Intermediate French Language And Culture I (or the equivalent)	3
FRENCH 2170	Intermediate French Language And Culture	3
FRENCH 2180	Readings In French	3
Select five of the following:		15
FRENCH 3200	French Grammar in Review (p. 50)	
FRENCH 3205	French in Commerce and Media (p. 50)	
FRENCH 3211	Contemporary French Culture (p. 50)	
FRENCH 3271	Intermediate French Conversation (p. 50)	
FRENCH 3280	French Literature and Culture to 1800 (p. 50)	
FRENCH 3281	French Literature and Culture After 1800 (p. 50)	
Select three courses at the 4000-level.		9
Total Hours		33

## Specific Requirements for Concentration in Spanish

Each major with a Spanish concentration must complete the following courses:

SPANISH 2101	Spanish Language And Culture III (or the equivalent)	3
SPANISH 2172 & 2172A	Spanish Composition and Grammar for Spanish Composition	4
Select one of the following:		4
SPANISH 2180 & 2180A	Readings In Spanish and Grammar for Readings in Spanish	
SPANISH 2199 & 2199A	Special Topics: Language Immersion: Spanish and Spanish Grammar for Language Immersion	
SPANISH 3210	Hispanic Culture And Civilization: Spain	3
or SPANISH 3211 & SPANISH 3210/3211A	Hispanic Culture And Civilization: Spanish America and Hispanic Culture And Civilization: Spain	
SPANISH 3280	Introduction To Hispanic Literature: Spain	3
or SPANISH 3281	Introduction To Hispanic Literature: Spanish America	
SPANISH 3326	Introduction to Hispanic Linguistics	3
Select two courses at the 3000-level (see course descriptions for more detail)		6
Select three courses at the 4000-level		9
Total Hours		35

## Specific Requirements for the Concentration in German

Each major with a concentration in German must complete the following courses:

GERMAN 2101	Intermediate Language And Culture: German III (p. 50)	3
GERMAN 2170	Intermediate Practice in Speaking and Writing German	3
GERMAN 2180	Intermediate Readings In German	3
GERMAN 3201	Introduction to German Literature	3
GERMAN 3202	Introduction to German Film	3
GERMAN 3208	The German-Speaking Countries in the Modern World	3
Select one course at the 3000-level		3
Select three courses at the 4000-level		9
Total Hours		30

## Specific Requirements for the Concentration in Japanese

Each major with a concentration in Japanese must complete the following courses:

JAPAN 2101 (p. 50)	Intermediate Japanese I	5
JAPAN 2102 (p. 50)	Intermediate Japanese II	5

JAPAN 3201 (p. 50)	Intermediate Japanese III	3
JAPAN 3202 (p. 50)	Intermediate Japanese IV	3
JAPAN 3280 (p. 50)	Readings in Japanese	3
JAPAN 4301 (p. 50)	Advanced Japanese I	3
JAPAN 4302 (p. 50)	Advanced Japanese II	3
JAPAN 4390 (p. 50)	Special Readings	3
Select three courses in Japanese Studies		9
Total Hours		37

## Learning outcomes for Majors

Students completing the BA in Modern Languages should be able to demonstrate competencies in 4 major Skills and Knowledge areas in the language of concentration: Linguistics, Critical Thinking, Cultural/Global Awareness, and Self- Reflection. The competencies should include the ability to:

- describe and narrate in the past, present and future both orally and in writing
- read authentic documents such as newspapers and literary texts for concrete information
- understand conversations, radio and television programming on concrete topics in the target language
- summarize, analyze and synthesize information derived from a variety of sources and media
- demonstrate knowledge of the history, geography, politics and arts of the target culture
- make connections with, and draw contrasts between, the target culture and their own
- understand the value and necessity of life-long learning and translingual and transcultural competence.

## Minor in French, German, Japanese or Spanish

A minor in French, German, Japanese or Spanish requires the completion of four courses in the language beyond the basic foundation sequence (Language 1001, Language 1002, and Language 2101) along with any associated "A" courses for Spanish minors. Transfer students must complete at least two courses for the minor at UMSL. All courses must be passed with a grade of C- or better.

### Specific requirement for the minor in French

FRENCH 2170 (p. 50)	Intermediate French Language And Culture	3
FRENCH 2180 (p. 50)	Readings In French	3
Select two French courses on the 3000-level or above.		6
Total Hours		12

### Specific requirement for the minor in German

GERMAN 2170 (p. 50)	Intermediate Practice in Speaking and Writing German	3
GERMAN 2180 (p. 50)	Intermediate Readings In German	3
Select two German courses on the 3000-level or above.		6
Total Hours		12

### Specific requirement for the minor in Japanese

JAPAN 2102 (p. 50)	Intermediate Japanese II	5
JAPAN 3201 (p. 50)	Intermediate Japanese III	3
JAPAN 3202 (p. 50)	Intermediate Japanese IV	3
Select one course in Japanese Studies.		3
Total Hours		14

### Specific requirement for the minor in Spanish

Select two of the following:		8
SPANISH 2199 (p. 50)	Special Topics: Language Immersion: Spanish and Spanish Grammar for Language Immersion & 2199A (p. 50)	
SPANISH 2172 (p. 50)	Spanish Composition and Grammar for Spanish Composition & 2172A (p. 50)	
SPANISH 2180 (p. 50)	Readings In Spanish and Grammar for Readings in Spanish & 2180A (p. 50)	
Plus two Spanish courses on the 3000-level or above		6
Total Hours		14

## Minor in Modern Languages

A minor in Modern Languages requires the completion of 4 courses beyond the introductory sequence (1001, 1002 and 2101), two in each of two different languages. For students who are seeking a BA in Modern Language, the two languages must be different than the language in which they are majoring.

## Minor in Classical Studies

The minor in Classical Studies is an interdisciplinary course of studies intended to encourage undergraduates in various disciplines to come to a fuller awareness of the cultures of ancient Greece and Rome and of the classical tradition that underlies much of modern Western civilization. Specific requirements for the minor are detailed on the Interdisciplinary Programs (p. 169) page.

Students pursuing a graduate degree in secondary education may select an emphasis area in French, German, Japanese or Spanish. These required eighteen hours may be selected from 3000 and 4000 level courses in these languages.



## Certificate in Modern Language and Study Abroad

Students seeking the certificate must complete language courses at UMSL and abroad. The Center for International Studies and Languages and Cultures cooperate in offering the Certificate.

### 1. Modern language study at UMSL

Students must select one of the following languages and complete the required courses at UMSL. Total: 6 credit hours. (8 hours for Spanish)

### French

FRENCH 2170 (p. 50)	Intermediate French Language And Culture	3
FRENCH 2180 (p. 50)	Readings In French	3
Total Hours		6

### German

GERMAN 2170 (p. 50)	Intermediate Practice in Speaking and Writing German	3
GERMAN 2180 (p. 50)	Intermediate Readings In German	3
Total Hours		6

### Spanish

SPANISH 2172 (p. 50)	Spanish Composition and Grammar for Spanish Composition & 2172A (p. 50)	4
SPANISH 2180 (p. 50)	Readings In Spanish and Grammar for Readings in Spanish & 2180A (p. 50)	4
Total Hours		8

### Japanese

JAPAN 2102 (p. 50)	Intermediate Japanese II	5
JAPAN 3201 (p. 50)	Intermediate Japanese III	3
Total Hours		8

### 2. Foreign language study abroad

Students must complete a minimum of two additional three credit hour courses taught in the target language, at a foreign university that is affiliated with the UMSL Study Abroad Program, with the goal of increasing linguistic competence. All courses must be approved by Language faculty members.

Students should consult the study abroad advisor in International Studies and Programs to select a site for their study abroad experience. Then, students should consult their advisor in Languages and Cultures to select appropriate courses.

## Career Outlook

Career options for graduates with a major or minor in modern languages include the following fields: teaching, social work, nursing, engineering, business, communications, government, journalism, travel industry, translation, and research. Our graduates have been especially successful when they combine advanced study in a modern language with another major. They are then able to add proficiency in a foreign language and culture to their knowledge and skills in another specialty. Experience with world cultures makes our graduates more adaptable and better prepared to meet the challenges of a global and increasingly diverse job market.

## Sample Four Year Plans

### Modern Languages, BA

- French Emphasis (p. 53)
- Japanese Emphasis (p. 53)
- Spanish Emphasis (p. 53)

### Modern Languages BA, French Emphasis

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 FRENCH 1002	5
FRENCH 1001 <sup>3</sup>	5 General Education	9
General Education <sup>2</sup>	9	
	<b>15</b>	<b>14</b>
Second Year		
Fall	Hours Spring	Hours
FRENCH 2101	3 FRENCH 2170	3
FGN LANG 2100	3 FRENCH 2180	3
General Education	6 General Education	6
Elective or minor	3 Elective or minor	3
	<b>15</b>	<b>15</b>
Third Year		
Fall	Hours Spring	Hours
FRENCH 3200	3 FRENCH 3280	3
General Education	6 French 4000+ level course	3
FRENCH 3205	3 Elective or minor	10
ENGL 3100	3	
	<b>15</b>	<b>16</b>
Fourth Year		
Fall	Hours Spring	Hours
FRENCH 3281	3 FRENCH 4000+ level course	3
FRENCH 4000+ level course	3 Elective or minor	12
Elective or minor	10	
	<b>16</b>	<b>15</b>
Total Hours: 121		

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

<sup>2</sup> The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science general education course.



3 This plan assumes that 9 hours of Spanish courses will satisfy the Humanities area of general education and help to fulfill the total of 42 general education hours.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Modern Languages BA, Japanese Emphasis

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 JAPAN 1002	5
General Education <sup>2</sup>	6 General Education	9
MATH 1020	3	
JAPAN 1001 <sup>3</sup>	5	
	<b>15</b>	<b>14</b>
Second Year		
Fall	Hours Spring	Hours
JAPAN 2101	5 JAPAN 2102	5
FGN LANG 2100	3 General Education	6
General Education	6 Elective or minor	6
	<b>14</b>	<b>17</b>
Third Year		
Fall	Hours Spring	Hours
JAPAN 3201	3 JAPAN 3202	3
JAPAN elective	3 JAPAN 3280	3
ENGL 3100	3 JAPAN elective	3
General Education	3 Elective or minor	6
Elective or minor	3	
	<b>15</b>	<b>15</b>
Fourth Year		
Fall	Hours Spring	Hours
JAPAN 4301	3 JAPAN 4302	3
JAPAN elective	3 JAPAN 4390	3
Elective or minor	9 Elective or minor	9
	<b>15</b>	<b>15</b>
Total Hours: 120		

- INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.
- The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science general education course.
- This plan assumes that 9 hours of Japanese courses will satisfy the Humanities area of general education and help to fulfill the total of 42 general education hours.

Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are

encouraged to meet with their advisor each semester. All requirements are subject to change.

## Modern Languages BA, Spanish Emphasis

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 General Education	9
General Education <sup>2</sup>	9 SPANISH 100:	5
SPANISH 1001	5	
	<b>15</b>	<b>14</b>
Second Year		
Fall	Hours Spring	Hours
FGN LANG 2100	3 SPANISH 2172A	1
General Education	6 SPANISH 218:	3
Elective or minor	3 SPANISH 2180A	1
SPANISH 2101	3 General Education	9
	SPANISH 2172	3
	<b>15</b>	<b>17</b>
Third Year		
Fall	Hours Spring	Hours
SPANISH 3210	3 SPANISH 3280	3
SPANISH 3210A	1 SPANISH 3000 level course	
ENGL 3100	3 Elective or minor	9
General Education	3	
Elective or minor	6	
	<b>16</b>	<b>12</b>
Fourth Year		
Fall	Hours Spring	Hours
SPANISH 3281	3 SPANISH 4399	3
SPANISH 3000 level course	3 SPANISH 4000 level course	3
SPANISH 4000 level course	3 Elective or minor	10
Elective or minor	6	
	<b>15</b>	<b>16</b>
Total Hours: 120		

- INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.
- The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science general education course.
- This plan assumes that 9 hours of Spanish courses will satisfy the Humanities area of general education and help to fulfill the total of 42 general education hours. Student should see an academic advisor to ensure they are selecting the correct courses.

*PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Arabic Courses

### **ARABIC 1001 Arabic I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, reading and writing of Arabic and upon the acquisition of the fundamentals of grammar and syntax.

### **ARABIC 1002 Arabic II: 5 semester hours**

Prerequisites: ARABIC 1001 or equivalent. Emphasis is placed upon the understanding, speaking, reading and writing of Arabic. Continuation of acquisition of the fundamentals of grammar and syntax.

### **ARABIC 2101 Intermediate Arabic I: 5 semester hours**

Prerequisites: ARABIC 1002 or equivalent. Students will advance their understanding of Arabic culture through discussions, readings and written work. Language skills will be further developed through meaningful communicative interaction.

### **ARABIC 2102 Intermediate Arabic II: 5 semester hours**

Prerequisites: ARABIC 2101 or equivalent Continuation of ARABIC 2101.

### **ARABIC 2190 Special Readings: 1-3 semester hours**

Prerequisites: ARABIC 2102 or consent of the department. Independent study through readings, reports and conferences.

## Chinese Courses

### **CHINESE 1001 Chinese I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, reading, and writing of Mandarin Chinese and upon the acquisition of the fundamentals of grammar and syntax.

### **CHINESE 1002 Chinese II: 5 semester hours**

Prerequisites: Chinese I or equivalent. Emphasis is placed upon the understanding, speaking, reading, and writing of Mandarin Chinese. Continuation of the acquisition of the fundamentals of grammar and syntax.

### **CHINESE 1003 Chinese III: 3 semester hours**

Prerequisites: CHINESE 1002 or equivalent. Review and practice of vocabulary, fundamentals of grammar, syntax, reading and writing acquired in CHINESE 1002. This course is not a CHINESE 2101 equivalent and may not be counted towards a foreign language requirement.

### **CHINESE 1005 Chinese Calligraphy and Writing in East Asia: 1 semester hour**

Same as JAPAN 1005. This course is an introduction to the art of Chinese calligraphy and the history and basic features of the writing systems in East Asia (Chinese, Japanese, Korean, Mongolian, Tibetan, etc.). Emphasis is placed on the Chinese script and writing Chinese characters correctly with a calligraphy brush and ink. Students practice writing basic strokes and characters and creating their own calligraphic works.

### **CHINESE 1199 Special Topics: Language Immersion: Chinese: 1 semester hour**

Prerequisites: CHINESE 1001 or concurrent enrollment in CHINESE 1001. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

### **CHINESE 2101 Intermediate Chinese I: 5 semester hours**

Prerequisites: CHINESE 1002 or equivalent. Grammar review and continued development of language skills.

### **CHINESE 2102 Intermediate Chinese II: 5 semester hours**

Prerequisites: CHINESE 2101 or equivalent. Continuation of CHINESE 2101.

### **CHINESE 2150 Chinese Literature In Translation: 3 semester hours**

A historical and critical introduction to great works in classical Chinese literature and culture. All Required readings will be in English translation. This course may be repeated for credit with different literary works with departmental approval. This course satisfies the University cultural diversity requirement.

### **CHINESE 2190 Special Readings: 1-6 semester hours**

Prerequisites: CHINESE 2102 or consent of the department Independent study through readings, reports, and conferences.

### **CHINESE 2191 Special Topics in Chinese Culture: 3 semester hours**

A topically organized introduction to Chinese culture and society. May be repeated for credit (up to 9 credits) when the topic varies.

### **CHINESE 2199 Special Topics: Language Immersion: Chinese: 1 semester hour**

Prerequisites: CHINESE 2101 or concurrent enrollment in CHINESE 2101. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

## English for Academic Purposes Courses

### **EAP 3202 Listening And Speaking Skills: 3 semester hours**

Prerequisites: Placement by examination. This intermediate-level course is for students who are non-native speakers of English to gain skills in listening and speaking for both conversational and academic situations. Students improve comprehensive and discrete listening skills, note-taking skills, vocabulary use, discussion skills, and understanding of American culture.

### **EAP 3203 Reading And Writing I: 3 semester hours**

Prerequisites: Minimum TOEFL Score of 500 or placement by examination. In this course International students develop fluency in their reading and writing skills in American English. This course consists of reading a variety of types of written texts, vocabulary building, organization in writing from the paragraph to essay, techniques for generating ideas, grammar use and editing. This course does not count toward a degree.

### **EAP 3205 Grammar for Speaking and Writing I: 3 semester hours**

Prerequisites: Placement by examination. A course for non-native speakers of English who have already studied basic English grammar. The content covers intensive study of verb tenses; their forms, meanings and integrated use; other grammatical structures; analyses of language use in written texts; and applied use in both speaking and writing to increase communicative competence.

### **EAP 4301 Advanced EAP Conversation and Pronunciation: 3 semester hours**

Prerequisites: Placement by examination or permission of instructor. Designed for non-native speakers who need to improve their fluency and pronunciation in American English. Conversation strategies, oral presentations and extensive practice to modify accent are included. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4302 Language Skills for Academic Success: 3 semester hours**

Prerequisites: Placement by examination or successful completion of EAP 3202. Designed for the student who is a non-native speaker of English to enhance academic language skills needed for the American university. This course includes readings and lectures from various disciplines, strategies for effective listening comprehension and note-taking, vocabulary building exercises, exam preparation, and participation in class discussions. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4303 Reading and Writing II: 3 semester hours**

Prerequisites: Placement by examination or successful completion of EAP 3203. This course prepares students for ENGL 1100 or ENGL 1110. Activities targeting writing skills include the organization of essays, rhetorical forms and their structural organization, revision of ideas, research techniques, grammar use and editing. To develop reading skills, students read articles and a novel, practice reading strategies and learn how to summarize articles. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4305 Grammar for Speaking and Writing II: 3 semester hours**

Prerequisites: Placement by examination or successful completion of EAP 3205. This course is for students who are non-native speakers of English who need review and applied practice of English grammar for oral and written work. This course may count towards undergraduate elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4307 Advanced Speaking Skills: 3 semester hours**

Prerequisites: EAP 4301, placement or consent of instructor. Bulletin description: Designed for non-native speakers who have fluency in speaking English but need to modify their accent to be better understood and feel confident expressing ideas. Course includes review and practice of the pronunciation of the consonants and vowels in American English; accent modification achieved through extensive practice of stress, rhythm and intonation patterns; and the development of speaking skills through presentations. This course may count towards elective credit towards graduation in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4390 Special Readings: 1-3 semester hours**

Prerequisites: Consent of the instructor. Independent study through readings, reports, and conferences. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4603 Research Paper Writing Workshop For International Students: 3 semester hours**

Prerequisites: Successful completion of EAP 4303 or placement by examination. Bulletin description: Organized as a workshop, this class focuses on the process of research paper writing, from choosing a topic to the final research paper. Class activities include using library resources for research, applying critical thinking skills, synthesizing source material, avoiding plagiarism, and using appropriate MLA or APA format. Editing for grammatical accuracy and word choice is included as necessary. Class enrollment is limited to 12 students. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 5400 Seminar for International Teaching Assistants: 1-3 semester hours**

Prerequisites: Consent of the department. Focus is on presentation skills, strategies to facilitate communication, and cultural differences in education. Students develop effective teaching skills through class presentations. Not applicable to graduate degree program.

**Foreign Language-Other Courses****FGN LANG 2100 Languages and World View: 3 semester hours**

SAME AS ANTHRO 2100 and SOC 2200. Prerequisites: Completion of two semesters of one foreign language at the college level. This course investigates the extent to which peoples' linguistic and cultural background informs their understanding of the world. Experts on a variety of major Western and non-Western languages will introduce students to differences in ideas about time, space, human relationships, and other issues based on language. The course will also analyze common cultural misunderstandings among native speakers of English and speakers of other languages.

**FGN LANG 2192 Service Learning In Foreign Languages: 1-3 semester hours**

Prerequisites: Permission of course instructor and concurrent enrollment in a Foreign Language course (Arabic, Chinese, English as a Second Language, French, German, Greek, Japanese, Latin or Spanish) at the 2000-level or higher. Taken concurrently with a qualifying foreign language course, students will participate in a community service experience that is academically integrated into the students' course of study. Community service in a local or international community organization, as approved by the course instructor, is required. Determination of the type of community service to be conducted and the number of hours required will be made in consultation with the instructor. May be repeated for a maximum of 6 credit hours.

**FGN LANG 4589 Curriculum and Methods of Teaching Foreign Language: 3 semester hours**

Same as SEC ED 4589. Prerequisites: TCH ED 3310 or TCH ED 5310 and passing the departmental language skills test. A study of the scope and sequence of the foreign language courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of foreign language. To be taken prior to student teaching. This course must be completed in residence. Not available for graduate credit.

**FGN LANG 4590 Foreign Language Teaching Seminar: 2 semester hours**

Same as SEC ED 4590. Prerequisites: Concurrent enrollment in SEC ED 4990 or consent of instructor. A practicum course in the teaching of foreign languages. Review and explanation of drills, dialogues, and a variety of classroom techniques, oral and written. A continuation of FGN LANG 4589 / SEC ED 4589, Curriculum and Methods, with an emphasis on specific practical skills. To be taken concurrently with SEC ED 4990, Student Teaching. Not available for graduate credit.

**FGN LANG 5311 Special Topics In Foreign Language Teaching: 3 semester hours**

Prerequisite: Consent of the Instructor. Designed for in-service foreign language teachers, this course focuses on the study of special topics in the field of foreign language learning with an emphasis on research applications to the improvement of practice. Topics may include technology for FL learning, the teaching of writing in the FL classroom, the teaching of reading in the FL classroom, proficiency-oriented instruction and assessment, second language acquisition for FL teachers, action research in the FL classroom. May be repeated for credit provided the topic is different. May be applied toward the Master's in Secondary Education with an emphasis in FL teaching.

**FGN LANG 5399 Standards-Based Foreign Language Instruction: 3 semester hours**

Prerequisites: Teacher certification and one year teaching experience. Designed to provide in-service foreign language teachers with the knowledge and skills to design instructional units that reflect the profession's standards for foreign language learning.

**French Courses****FRENCH 1001 French Language and Culture I: 5 semester hours**

Students will develop communicative skills in French, including listening, speaking, reading, and writing. Introduction to Francophone culture through discussion of readings and visual media. Intended for students with no previous French experience. Students with previous French experience are expected to.

**FRENCH 1002 French Language and Culture II: 5 semester hours**

Prerequisite: FRENCH 1001 or equivalent. Students will continue to develop communicative skills in French, including listening, speaking, reading, and writing. Continued exploration of Francophone culture through discussion of readings and visual media.

**FRENCH 2101 Intermediate French Language And Culture I: 3 semester hours**

Prerequisites: FRENCH 1002 or equivalent. Students will advance their understanding of Francophone cultures through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction.

**FRENCH 2115A Intensive French: 5 semester hours**

Prerequisite: Special Consent Required. An intensive study of French language and culture. Students will develop communicative skills, including listening, speaking, reading, and writing. Completion of the course with a grade of C- or better will satisfy the foreign language requirement of the B.A. degree. Students who have successfully completed FRENCH 2115A, FRENCH 2115B, and FRENCH 2115C this course may advance to FRENCH 2170 and FRENCH 2180.

**FRENCH 2115B Intensive French: 5 semester hours**

Prerequisite: Special Consent Required. An intensive study of French language and culture. Students will develop communicative skills, including listening, speaking, reading, and writing. Completion of the course with a grade of C- or better will satisfy the foreign language requirement of the B.A. degree. Students who have successfully completed FRENCH 2115A, FRENCH 2115B, and FRENCH 2115C this course may advance to FRENCH 2170 and FRENCH 2180.

**FRENCH 2115C Intensive French: 3 semester hours**

Prerequisite: Special Consent Required. An intensive study of French language and culture. Students will develop communicative skills, including listening, speaking, reading, and writing. Completion of the course with a grade of C- or better will satisfy the foreign language requirement of the B.A. degree. Students who have successfully completed FRENCH 2115A, FRENCH 2115B, and FRENCH 2115C this course may advance to FRENCH 2170 and FRENCH 2180.

**FRENCH 2170 Intermediate French Language And Culture: 3 semester hours**

Prerequisites: FRENCH 2101 or equivalent. Students will continue to advance in their development of the four language skills through meaningful communicative interaction. Students will further advance their understanding of Francophone culture. This course should be taken concurrently with FRENCH 2180.

**FRENCH 2180 Readings In French: 3 semester hours**

Prerequisite: FRENCH 2101 or equivalent. This course will introduce students to a variety of literary and non-literary texts in French. This course should be taken concurrently with FRENCH 2170.

**FRENCH 2190 Special Readings In French: 1-3 semester hours**

Prerequisite: FRENCH 2101 and consent of the department. Independent study on mutually acceptable topics through readings, reports, and conferences.

**FRENCH 2199 Special Topics: Language Immersion: French: 1-3 semester hours**

Prerequisite: FRENCH 2101 or consent of instructor. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit provided that the topic is different.

**FRENCH 3200 French Grammar in Review: 3 semester hours**

Prerequisite: FRENCH 2170 and FRENCH 2180. This course is designed to increase students' ability to communicate clearly and effectively through study and practice of forms and structures of the French language. Strong emphasis in writing.

**FRENCH 3205 French in Commerce and Media: 3 semester hours**

Prerequisite: FRENCH 2170 and FRENCH 2180. Professional and practical applications of French in commerce and media, including conventions of correspondence, business etiquette, and travel.

**FRENCH 3211 Contemporary French Culture: 3 semester hours**

Prerequisites: FRENCH 2170 and FRENCH 2180. Aspects of contemporary French culture, including history, geography, education, politics, and gastronomy, studied through a variety of authentic cultural materials.

**FRENCH 3271 Intermediate French Conversation: 3 semester hours**

Prerequisite: FRENCH 2170 or consent of the instructor. Emphasis will be placed upon the further development of communicative skills in French.

**FRENCH 3280 French Literature and Culture to 1800: 3 semester hours**

Prerequisites: FRENCH 2170 and FRENCH 2180. Designed to acquaint students with French literature and culture from the Middle Ages through the eighteenth century.

**FRENCH 3281 French Literature and Culture After 1800: 3 semester hours**

Prerequisites: FRENCH 2170 and FRENCH 2180. Designed to acquaint students with French literature and culture from the nineteenth century to the present.



**FRENCH 3290 Special Readings: 1-3 semester hours**

Prerequisite: Consent of department. Independent study through readings, reports and conferences.

**FRENCH 4300 Advanced Grammar & Stylistics: 3 semester hours**

Prerequisite: FRENCH 3200 or equivalent. This course is designed to improve students' writing skills through advanced study of modern French prose style.

**FRENCH 4311 Special Topics In French Culture and Literature: 3 semester hours**

Prerequisites: Three French courses at the 3000 level or above. Selected topics in French/Francophone culture and literature. This course may be repeated for credit provided the topic is different each time.

**FRENCH 4350 Studies in Eighteenth-Century French Literature and Culture: 3 semester hours**

Prerequisite: FRENCH 3280 or FRENCH 3281. A study of eighteenth-century French literature and culture. Topics may include the philosophic movement, the French Revolution, and representative novels and plays.

**FRENCH 4360 Studies in Nineteenth-Century French Literature and Culture: 3 semester hours**

Prerequisite: FRENCH 3280 or FRENCH 3281. A study of nineteenth-century French literature and culture. Topics may include romanticism, realism, symbolism, and impressionism.

**FRENCH 4370 Studies in Twentieth-Century French Literature and Culture: 3 semester hours**

Prerequisite: FRENCH 3280 or FRENCH 3281. A study of twentieth-century French literature and culture. Topics may include surrealism, existentialism, the influence of the world wars, post-colonialism, and cinema.

**FRENCH 4380 Studies in Twenty-First-Century French Literature and Culture: 3 semester hours**

Prerequisites: FRENCH 3280 or FRENCH 3281. A study of twenty-first-century French literature and culture. Topics may include literature, media, and culture since 2000.

**FRENCH 4390 Advanced Independent Study: 1-3 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports and discussions.

**FRENCH 4399 French Seminar: 3 semester hours**

Prerequisite: FRENCH 3280 or FRENCH 3281. Specialized topic in French literature. Subject to be announced by instructor in charge of seminar.

**FRENCH 5311 Advanced Topics in French Culture and Literature: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Selected topics in French/Francophone culture and literature. This course may be repeated for credit provided the topic is different each time. Students will be expected to conduct an independent research project.

## German Courses

**GERMAN 1001 Beginning Language and Culture German I: 5 semester hours**

Introduction for students with little or no knowledge of German. Students will develop listening comprehension, speaking, reading, and writing skills and become familiar with the cultures and history of the German-speaking countries. The course is conducted mainly in German. GERMAN 1001, GERMAN 1002, and GERMAN 2101 together form the introductory German language sequence.

**GERMAN 1002 Beginning Language and Culture: German II: 5 semester hours**

Prerequisite: GERMAN 1001 or equivalent. Students will continue to develop listening comprehension, speaking, reading, and writing skills and to become familiar with the cultures and history of the German-speaking countries. The course is conducted mainly in German. GERMAN 1001, GERMAN 1002, and GERMAN 2101 together form the introductory German language sequence.

**GERMAN 2101 Intermediate Language And Culture: German III: 3 semester hours**

Prerequisites: GERMAN 1002 or equivalent. Students will advance their understanding of German-speaking cultures through discussions, readings, and written work. Through meaningful communicative interaction, students will further develop their language skills. The course is conducted mainly in German. GERMAN 1001, GERMAN 1002, and GERMAN 2101 together form the introductory German language sequence. Students who have successfully completed this course may advance to GERMAN 2170 or GERMAN 2180.

**GERMAN 2170 Intermediate Practice in Speaking and Writing German: 3 semester hours**

Prerequisites: GERMAN 2101 or equivalent. In this course students will strengthen their communication skills and grammar in spoken and written German. Students will work with authentic literary texts, news articles, film, and music. GERMAN 2170 and GERMAN 2180 together form the bridge between the introductory German language sequence (GERMAN 1001, GERMAN 1002, and GERMAN 2101) and the advanced culture and literature courses. The course is conducted in German.

**GERMAN 2180 Intermediate Readings In German: 3 semester hours**

Prerequisites: GERMAN 2101 or equivalent. In this course students will strengthen their communication skills and grammar in spoken and written German. Students will read and discuss authentic German texts. GERMAN 2170 and GERMAN 2180 together form the bridge between the introductory German language sequence (GERMAN 1001, GERMAN 1002, and GERMAN 2101) and the advanced culture and literature courses. The course is conducted in German.

**GERMAN 2190 Intermediate Independent Study: 1-3 semester hours**

Prerequisite: GERMAN 2170 and GERMAN 2180, and consent of instructor and department. In consultation with the instructor, students undertake independent work to further develop intermediate German language skills and to deepen their knowledge of culture and history. The course is conducted in German.

**GERMAN 2199 Special Topics: Language Immersion: 1 semester hour**

Prerequisites: GERMAN 1002. Faculty-led experience designed specifically to enhance acquisition of German language and culture. This course may be repeated for credit if the topics vary. The course is conducted in German.

**GERMAN 3201 Introduction to German Literature: 3 semester hours**

Prerequisite: Two years of college German or equivalent. Readings and critical analysis of selected works of literature written in the German language. This course is conducted in German.

**GERMAN 3202 Introduction to German Film: 3 semester hours**

Prerequisite: Two years of college German or equivalent. Viewings and critical analysis of selected films produced in the German language. The course is conducted in German.



**GERMAN 3208 The German-Speaking Countries in the Modern World: 3 semester hours**

Prerequisite: Two years of college German or equivalent; GERMAN 2170 or equivalent. A critical examination of issues in the culture and politics of the German-speaking countries since 1945 through a variety of media. The course is conducted in German.

**GERMAN 3210 German Culture And Civilization: 3 semester hours**

Prerequisite: Two years of college German or equivalent. A survey of the development of German culture and civilization and the emergence of a German identity. The course is conducted in German.

**GERMAN 3211 Topics in German Culture: 3 semester hours**

Prerequisites: Two years of college German or equivalent. Discussion of significant topics in German culture. This course may be repeated for credit if the topics vary. The course is conducted in German, or in English when cross-listed with another department.

**GERMAN 3280 German Literature and Culture I: Beginnings-Enlightenment: 3 semester hours**

Prerequisites: At least one 3000-level German course or consent of the instructor and department. This survey course will familiarize students with the development of German literature and culture through the end of the Enlightenment. Critical analysis of representative texts and other media. The course is conducted in German.

**GERMAN 3281 German Literature and Culture II: Romanticism - Present: 3 semester hours**

Prerequisites: At least one 3000-level German course or consent of instructor and department. This survey course will familiarize students with the development of German literature and culture from the end of the Enlightenment through the present day. Critical analysis of representative texts and other media. The course is conducted in German.

**GERMAN 3290 Advanced Independent Study I: 1-3 semester hours**

Prerequisite: GERMAN 3201, GERMAN 3202, GERMAN 3208, GERMAN 3210, and consent of instructor and department. In consultation with the instructor, students undertake independent work to transition from intermediate to advanced German language skills and to deepen their knowledge of culture and history. The course is conducted in German.

**GERMAN 4311 Special Topics In German Culture: 3 semester hours**

Prerequisites: At least two 3000 level German courses or consent of instructor and department. Discussion of significant topics in German culture. This course may be repeated for credit if the topics vary. The course is conducted in German, or in English when cross-listed with another department.

**GERMAN 4390 Advanced Independent Study II: 1-3 semester hours**

Prerequisite: GERMAN 3201, GERMAN 3202, GERMAN 3208, and GERMAN 3210, and consent of instructor and department. In consultation with the instructor, students undertake independent work to further develop advanced German language skills and to deepen their knowledge of culture and history. The course is conducted in German.

**GERMAN 4398 Survey Of German Literature Part II: 3 semester hours**

Prerequisite: GERMAN 3201 or GERMAN 3202. Special emphasis on the summary and synthesis of trends and characteristics of major periods in German literature considered in the general context of European culture.

**GERMAN 5311 Advanced Topics In German Culture: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor and department. Discussion of significant topics in German culture. This course may be repeated for credit if the topics vary. The course is conducted in German, or in English when cross-listed with another department.

## Greek Ancient Courses

**GRK ANC 1001 Ancient Greek I: 5 semester hours**

Study of grammar, syntax and vocabulary accompanied by readings of simple prose selections.

**GRK ANC 1002 Ancient Greek II: 5 semester hours**

Prerequisite: GRK ANC 1001 or equivalent. The study of vocabulary, grammar and syntax is continued from GRK ANC 1001, including readings and discussion from selected classic authors.

**GRK ANC 2101 Intermediate Ancient Greek Language And Culture: 3 semester hours**

Prerequisite: GRK ANC 1002 or equivalent. Students will advance their understanding of ancient Greek culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**GRK ANC 2152 A Brief Introduction to Greek and Latin in English Today: 1 semester hour**

Same as LATIN 2152. This outline course is designed to enrich the student's general liberal arts vocabulary as well as to improve mastery of terms used in law, medicine, and science. The emphasis is on vocabulary derived from Greek and Latin. Included will be the Greek alphabet and an introduction to historical language change involving the relationship among Greek, Latin, and Romance languages, and Germanic languages (particularly English). This course is not to be taken in addition to GRK ANC 2151.

## Greek Modern Courses

**GRK MOD 1001 Modern Greek I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, reading, and writing of Modern Greek and upon the acquisition of the fundamentals of grammar and syntax.

**GRK MOD 1002 Modern Greek II: 5 semester hours**

Prerequisite: GRK MOD 1001 or equivalent. The study of vocabulary, grammar and syntax is continued from GRK MOD 1001. Readings and discussions from selected classical authors.

**GRK MOD 2101 Intermediate Modern Greek Language And Culture: 3 semester hours**

Prerequisites: GRK MOD 1002 or equivalent. Students will advance their understanding of modern Greek culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**GRK MOD 2102 Intermediate Modern Greek Language And Culture II: 3 semester hours**

Prerequisite: GRK MOD 2101 or equivalent. Emphasis is placed on the study of Greek and Greek-American culture and the continued development of language skills through meaningful communicative interaction.

**GRK MOD 2150 Modern Greek Literature In Translation: 3 semester hours**

This course is an exploration of significant works by major Modern Greek authors, dealing with relevant issues of Western literary traditions. Authors include: Cavafy, Kazantzakis, Seferis, Solomos, Elytis.

**GRK MOD 2190 Special Readings: 1-3 semester hours**

Prerequisites: GRK MOD 2101 or consent of the department. Independent study through readings, reports, and conferences.

## Japanese Courses

### **JAPAN 1001 Japanese I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, and writing of Japanese and upon the acquisition of the fundamentals of grammar and syntax.

### **JAPAN 1002 Japanese II: 5 semester hours**

Prerequisites: JAPAN 1001 or equivalent. Emphasis is placed upon the understanding, speaking, reading, and writing of Japanese. Continuation of the acquisition of the fundamentals of grammar and syntax.

### **JAPAN 1003 Japanese III: 3 semester hours**

Prerequisite: JAPAN 1002 or equivalent. Review and practice of fundamentals of grammar, syntax, reading and writing acquired in JAPAN 1002. This course is not a JAPAN 2101 equivalent and may not be counted towards a foreign language requirement.

### **JAPAN 1005 Chinese Calligraphy and Writing in East Asia: 1 semester hour**

Same as CHINESE 1005. This course is an introduction to the art of Chinese calligraphy and the history and basic features of the writing systems in East Asia, (Chinese, Japanese, Korean, Mongolian, Tibetan, etc.). Emphasis is placed on the Chinese script and writing Chinese characters correctly with a calligraphy brush and ink. Students practice writing basic strokes and characters and creating their own calligraphic works.

### **JAPAN 1011 Anime Nation: Popular Culture in Japan: 3 semester hours**

A look at postmodern samurai, preteen ninjas, praying at shrines and other elements of J-pop culture. This on-line course uses various clips and full-length animated features, to introduce and explore topics such as family life, school life, shared values, contemporary social issues, fashion, and metaphysics. Critical texts, essays, and narrated presentations provide background for analysis and appreciation.

### **JAPAN 1199 Special Topics: Language Immersion: Japanese: 1 semester hour**

Prerequisite: JAPAN 1001 or concurrent enrollment in JAPAN 1001. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

### **JAPAN 2101 Intermediate Japanese I: 5 semester hours**

Prerequisite: JAPAN 1002 or equivalent. Students will advance their understanding of Japanese culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

### **JAPAN 2102 Intermediate Japanese II: 5 semester hours**

Prerequisites: JAPAN 2101 or equivalent. Continuation of JAPAN 2101.

### **JAPAN 2111 The World of Anime - Advanced Topics in Japanese Animation: 3 semester hours**

Prerequisites: JAPAN 1011 or permission of instructor. Students will explore and analyze anime and manga from sociological, literary, and anthropological perspectives, attempting to foster deeper understanding of contemporary Japan and the historical context from which the selected works emerged.

### **JAPAN 2150 Classical Japanese Literature In Translation: 3 semester hours**

An exploration of Classical Japanese literary masterpieces and the world from which they arose. All required readings will be in English translation. This course may be repeated for credit with different literary works as a topic.

### **JAPAN 2190 Special Readings: 1-3 semester hours**

Prerequisites: JAPAN 2102 or consent of the department Independent study through readings, reports, and conferences.

### **JAPAN 2191 Special Topics in Japanese Culture: 3 semester hours**

A topically organized introduction to Japanese culture and society. May be repeated for credit when the topic varies.

### **JAPAN 2199 Special Topic s: Language Immersion: Japanese: 1 semester hour**

Prerequisite: JAPAN 2101 or concurrent enrollment in JAPAN 2101. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

### **JAPAN 3201 Intermediate Japanese III: 3 semester hours**

Prerequisites: JAPAN 2102 or equivalent. Students will continue to advance their understanding of Japanese culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course satisfies the University cultural diversity requirement.

### **JAPAN 3202 Intermediate Japanese IV: 3 semester hours**

Prerequisites: JAPAN 3201 or equivalent. Continuation of JAPAN 3201.

### **JAPAN 3280 Readings in Japanese: 3 semester hours**

Prerequisites: JAPAN 3202 or equivalent. Development of language skills through reading and discussion of a variety of literary and non-literary texts in Japanese.

### **JAPAN 3290 Special Readings: 1-3 semester hours**

Prerequisites: JAPAN 2190 or consent of instructor Independent study through readings, reports and conferences.

### **JAPAN 4301 Advanced Japanese I: 3 semester hours**

Prerequisite: JAPAN 3202 or equivalent. Further development of skills in both spoken and written Japanese. Students will read/view and discuss selected newspaper articles, editorials, essays, short stories, television programs and films.

### **JAPAN 4302 Advanced Japanese II: 3 semester hours**

Prerequisite: JAPAN 4301 or equivalent. Continuation of Japanese 4301. Further development of skills in both spoken and written Japanese. Students will read/view and discuss selected newspaper articles, editorials, essays, short stories, television programs and films.

### **JAPAN 4390 Special Readings: 1-3 semester hours**

Prerequisites: JAPAN 3290 or consent of instructor. Independent study through readings, reports and conferences.

## Latin Courses

### **LATIN 1001 Latin I: 5 semester hours**

A study of Latin grammar, syntax and vocabulary accompanied by reading selections from literary texts.

### **LATIN 1002 Latin II: 5 semester hours**

Prerequisite: LATIN 1001 or equivalent. The study of vocabulary, grammar and syntax is continued from LATIN 1001, including readings and discussion from selected classical authors.

### **LATIN 2101 Intermediate Latin Language And Culture: 3 semester hours**

Prerequisites: LATIN 1002 or equivalent Students will advance their understanding of Roman culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**LATIN 2150 Latin Literature In Translation: 3 semester hours**

Prerequisites: Sophomore standing. Reading and discussion of selected works in Latin literature from Republican Rome to late antiquity in English translation. This course may be repeated for credit if the topics vary.

**LATIN 2152 A Brief Introduction to Greek and Latin in English Today: 1 semester hour**

Same as GRK ANC 2152. This online course is designed to enrich the student's general liberal arts vocabulary as well as to improve mastery of terms used in law, medicine, and science. The emphasis is on vocabulary derived from Greek and Latin. Included will be the Greek alphabet and an introduction to historical language change involving the relationship among Greek, Latin, and Romance languages, and Germanic languages (particularly English). This course is not to be taken in addition to GRK ANC 2151.

**LATIN 2190 Special Readings: 1-3 semester hours**

prerequisite: LATIN 2101 and consent of department. Independent study through readings, reports and conferences.

## Spanish Courses

**SPANISH 1001 Spanish Language and Culture I: 5 semester hours**

This first Spanish course is designed to encourage the development of communicative proficiency through an integrated approach to the teaching of all four language skills - listening and understanding, reading, writing, and speaking. It encourages development of communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they develop their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. SPANISH 1001, SPANISH 1002, and SPANISH 2101 together form the introductory Spanish language sequence. Note: Intended for students with no previous Spanish experience. Students with previous Spanish experience are expected to contact the department for placement advising.

**SPANISH 1002 Spanish Language and Culture II: 5 semester hours**

Prerequisite: SPANISH 1001 or equivalent. This second Spanish course is designed to continue the development of communicative proficiency through an integrated approach to the teaching of all four language skills - listening and understanding, reading, writing, and speaking. It encourages development of communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they strengthen their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. SPANISH 1001, SPANISH 1002, and SPANISH 2101 together form the introductory Spanish language sequence.

**SPANISH 1199 Special Topics: Language Immersion: Spanish: 1-3 semester hours**

Prerequisites: SPANISH 1002 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated, provided the topics vary, for a maximum of 3 credits.

**SPANISH 2101 Spanish Language And Culture III: 3 semester hours**

Prerequisites: SPANISH 1002 or equivalent. This third Spanish course is designed to further develop communicative proficiency through an integrated approach to the teaching of all four language skills - listening and understanding, reading, writing, and speaking. It continues the development of communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they strengthen their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. SPANISH 1001, SPANISH 1002, and SPANISH 2101 together form the introductory Spanish language sequence. Successful completion fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A.

**SPANISH 2115A Intensive Spanish Language and Culture: 5 semester hours**

Prerequisite: Special consent required. Contact department for information. This intensive study of Spanish is equivalent to SPANISH 1001, SPANISH 1002, and SPANISH 2101, and is offered in a condensed format. It is designed to develop communicative proficiency through an integrated approach to the teaching of all four language skills: listening and understanding, reading, writing, and speaking. It develops communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they build their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. Successful completion of SPANISH 2115A, SPANISH 2115B and SPANISH 2115C fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A. SPANISH 2115A, SPANISH 2115B and SPANISH 2115C are co-requisites and must be taken concurrently. All three must be completed with a grade of C- or better to satisfy the foreign language requirement.

**SPANISH 2115B Intensive Spanish Language and Culture: 5 semester hours**

Prerequisite: Special consent required. Contact department for information. This intensive study of Spanish is equivalent to SPANISH 1001, SPANISH 1002, and SPANISH 2101, and is offered in a condensed format. It is designed to develop communicative proficiency through an integrated approach to the teaching of all four language skills: listening and understanding, reading, writing, and speaking. It develops communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they build their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. Successful completion of SPANISH 2115A, SPANISH 2115B and SPANISH 2115C fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A. SPANISH 2115A, SPANISH 2115B and SPANISH 2115C are co-requisites and must be taken concurrently. All three must be completed with a grade of C- or better to satisfy the foreign language requirement.



**SPANISH 2115C Intensive Spanish Language and Culture: 3 semester hours**

Prerequisite: Special consent required. Contact department for information. This intensive study of Spanish is equivalent to SPANISH 1001, SPANISH 1002, and SPANISH 2101, and is offered in a condensed format. It is designed to develop communicative proficiency through an integrated approach to the teaching of all four language skills: listening and understanding, reading, writing, and speaking. It develops communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they build their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. Successful completion of SPANISH 2115A, SPANISH 2115B and SPANISH 2115C fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A. SPANISH 2115A, SPANISH 2115B and SPANISH 2115C are co-requisites and must be taken concurrently. All three must be completed with a grade of C- or better to satisfy the foreign language requirement.

**SPANISH 2171 Spanish Conversation And Pronunciation: 3 semester hours**

Prerequisite: SPANISH 2101 or equivalent. Emphasis will be placed upon the development of oral skills in Spanish and upon the problems of Spanish pronunciation and intonation.

**SPANISH 2172 Spanish Composition: 3 semester hours**

Prerequisite: SPANISH 2101 or equivalent. Emphasis in developing the capacity and the ability to write in Spanish. To be taken concurrently with the online course SPANISH 2172A.

**SPANISH 2172A Grammar for Spanish Composition: 1 semester hour**

Prerequisites: SPANISH 2101 or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 2172.

**SPANISH 2175 Commercial Spanish: 3 semester hours**

Prerequisites: SPANISH 2101 or equivalent. Students will continue to expand their skills in Spanish within a real-world framework related to business with an emphasis placed on business-related vocabulary and improved public speaking skills in Spanish. No previous business experience is necessary, although this course is perfect for those students pursuing a major or minor in Business, International Business, Marketing, Communication, or any other business-related field. This course may not be taken for credit toward a major, but will count toward a minor in Spanish.

**SPANISH 2180 Readings In Spanish: 3 semester hours**

Prerequisite: SPANISH 2101 Or Equivalent. Development of language skills through reading and discussion of a variety of texts. To be taken concurrently with the online course SPANISH 2180A.

**SPANISH 2180A Grammar for Readings in Spanish: 1 semester hour**

Prerequisites: SPANISH 2101 or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 2180.

**SPANISH 2190 Special Readings: 1-3 semester hours**

Prerequisite: SPANISH 2101 and consent of department. Independent study through readings, reports and conferences.

**SPANISH 2199 Special Topics: Language Immersion: Spanish: 1-3 semester hours**

Prerequisite: SPANISH 2101 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary, for a maximum of 3 credits.

**SPANISH 2199A Spanish Grammar for Language Immersion: 1 semester hour**

Prerequisites: SPANISH 2101 or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 2199.

**SPANISH 3199 Special Topics: Language Immersion: Spanish: 1-3 semester hours**

Prerequisites: 2 of the following 3 courses: SPANISH 2171, SPANISH 2172, SPANISH 2180 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary for a maximum of 3 credits.

**SPANISH 3200 Syntax Of The Spanish Language: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent. Study of the syntactical and morphological characteristics of the Spanish language. Designed primarily for students majoring in Spanish.

**SPANISH 3210 Hispanic Culture And Civilization: Spain: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 Of The 3 Courses) Or Equivalent. The Development Of Spanish Peninsula Civilization From Its Romantic Beginnings To The Present.

**SPANISH 3210A Spanish Grammar for Hispanic Culture and Civilization; Spain: 1 semester hour**

Prerequisites: SPANISH 2171, SPANISH 2172, or SPANISH 2180 (2 of the 3 courses) or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 3210.

**SPANISH 3211 Hispanic Culture And Civilization: Spanish America: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent. The development of the cultures and civilization of the Spanish speaking nations of the western hemisphere.

**SPANISH 3211A Spanish Grammar for Hispanic Culture and Civilization: Spanish America: 1 semester hour**

Prerequisites: SPANISH 2171, SPANISH 2172, or SPANISH 2180 (2 of the 3 courses) or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 3211.

**SPANISH 3215 Practicum In Spanish: 3 semester hours**

Prerequisites: 2 of the following: SPANISH 2171, SPANISH 2172, SPANISH 2180 or equivalent, or consent of the instructor. This course introduces students to the Hispanic/Latino cultures in the US through community service and academic work. Students will perform a minimum of 20 hours per semester of supervised fieldwork in local organizations that serve area Hispanics. Students will study several issues related to the community they serve, will reflect on their field experience, and will connect their field experience with class readings and discussions. Required weekly seminar accompanies the field experience. Designed for majors of various disciplines. Placement at the agencies is relevant to the enrolled student's.

**SPANISH 3260 Spanish For Business: 3 semester hours**

Prerequisites: SPANISH 2171 or SPANISH 2172 or equivalent and SPANISH 3200 or permission of the instructor. Cultivation of advanced language skills with emphasis on business vocabulary, basic business and cultural concepts and situational practice to help prepare for interaction in the Spanish-speaking business world. Designed for international business students, economics students, or anyone interested in expanding their awareness of the Spanish language or wishing to explore the possibilities of positions with companies that need to conduct business in Spanish.

**SPANISH 3271 Advanced Spanish Conversation: 3 semester hours**

Prerequisite: SPANISH 2171 or consent of department. Emphasis will be placed upon the further development of oral skills in Spanish.

**SPANISH 3280 Introduction To Hispanic Literature: Spain: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent and SPANISH 3200 or two of the following: SPANISH 2172A, SPANISH 2180A, SPANISH 3210A, SPANISH 3211A. A survey course that introduces students to a rich variety of Peninsular texts ranging from the early Hispano-Arabic texts, through the Middle Ages, the Golden Age, and finally, modern Peninsular literature. The focus is on texts and excerpts that will familiarize students with the major movements and styles of Peninsular literature. The socio-political contexts in which the works were written will be studied. Required of Spanish majors. SPANISH 2180 is recommended for prerequisite.

**SPANISH 3281 Introduction To Hispanic Literature: Spanish America: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent and SPANISH 3200 or two of the following: SPANISH 2172A, SPANISH 2180A, SPANISH 3210A, SPANISH 3211A. A survey course that introduces students to selected texts of Spanish-American writers from the colonial period to the present. The focus is on texts and excerpts that will familiarize students with the major movements and styles of Spanish-American literature. The socio-political contexts in which the works were written will also be studied. Required of Spanish majors. SPANISH 2180 is recommended for prerequisite.

**SPANISH 3290 Special Readings: Spanish: 1-3 semester hours**

Prerequisite: Consent of department. Independent study through readings, reports and conferences.

**SPANISH 3311 Introduction to Special Topics in Hispanic Culture: 3 semester hours**

Prerequisites: Two of SPANISH 2172, SPANISH 2180 or SPANISH 2199 and two of the following SPANISH 2172A, SPANISH 2180A, or SPANISH 2199A or equivalent. Selected topics in Hispanic culture taught in Spanish. This course may be repeated twice for credit provided that the topic is different each time.

**SPANISH 3326 Introduction to Hispanic Linguistics: 3 semester hours**

Prerequisites: SPANISH 2172 with SPANISH 2172A, and one of the following: SPANISH 2180 with SPANISH 2180A, or SPANISH 2199 with SPANISH 2199A; or the equivalent. Students will develop an understanding of the basic aspects and tools of analysis in the primary areas of linguistics as applied to the Spanish language, including phonetics and phonology, morphology, syntax, semantics, pragmatics, and sociolinguistics.

**SPANISH 3327 Introduction to Hispanic Dialectology: 3 semester hours**

Prerequisites: SPANISH 2172 with SPANISH 2172A, and one of the following: SPANISH 2180 with SPANISH 2180A, or SPANISH 2199 with SPANISH 2199A; or the equivalent. Students will develop awareness of the different dialects and colloquialisms found in the Spanish-speaking world.

**SPANISH 4172 Introduction To Creative Writing In Spanish: 3 semester hours**

Prerequisites: SPANISH 3280 or SPANISH 3281 (junior status) or consent of instructor. This course will be presented in two parts. First, students will read literature samples and discuss theory for creative writing; and second, they will explore their own creativity by writing poetry, essays and short stories through exercises and examples given by the instructor.

**SPANISH 4199 Special Topics: Language Immersion: 1-3 semester hours**

Prerequisites: SPANISH 3280 or SPANISH 3281 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary, for a maximum of 3 credits.

**SPANISH 4300 Advanced Grammar: 3 semester hours****SPANISH 4311 Special Topics In Hispanic Culture: 3 semester hours**

Prerequisites: SPANISH 3280, or SPANISH 3281 or junior standing. Selected topics in Hispanic culture taught in Spanish. This course may be repeated for credit provided the topic is different each time.

**SPANISH 4312 Special Topics in Hispanic Literature: 3 semester hours**

Prerequisites: Junior standing or SPANISH 3280 or SPANISH 3281. Selected topics in Hispanic literature taught in Spanish. This course may be repeated for credit provided that the topic is different each time.

**SPANISH 4315 Spanish Literature From 1939 To The Present: 3 semester hours**

Prerequisite: SPANISH 3280. A study of cultural and literary development since the Spanish Civil War. Emphasis on leading novelists and dramatists.

**SPANISH 4323 Spanish Second Language Acquisition: 3 semester hours**

Prerequisites: SPANISH 3326 or equivalent, or by instructor approval. This course provides an introduction to the theoretical and methodological foundations of second language acquisition of Spanish. Key topics in the field such as learner strategies, the role of formal instruction, target language input, influence from the first language, and effects of study abroad are addressed. Students read and critique relevant literature on the acquisition of different phonological, morphosyntactic, lexical, and discourse features of Spanish as a second language. Small-scale analyses of Spanish interlanguage data are also conducted. Course taught in Spanish.

**SPANISH 4324 Spanish Sociolinguistics: 3 semester hours**

Prerequisites: SPANISH 3326 or equivalent, or consent of instructor. This course examines how Spanish is used within its social context. Key theoretical and methodological concepts from the field of sociolinguistics are discussed as applied to the Spanish language. Topics include language and identity, speech style, gender and language use, language attitudes, languages in context, bilingualism, and language change. Students are introduced to phonological, morphosyntactic, and discursive features subject to sociolinguistic variation across the Spanish-speaking world. The social context and implications of Spanish in the United States are also addressed. Course taught in Spanish.



**SPANISH 4325 Poetry And Drama Of The Golden Age: 3 semester hours**

Prerequisite: SPANISH 3280. Selected readings from the drama of Lope de Vega, Tirso de Molina, Ruiz de Alarcon, Calderon de la Barca and from the poetry of Garcilaso, Fray Luis de Leon, San de la Cruz, Gongora, Lope de Vega, and Quevedo.

**SPANISH 4326 Applied Linguistics In Spanish: 3 semester hours**

Prerequisites: SPANISH 3200 or equivalent. Study of the general principles of linguistics applied to the learning and teaching of Spanish with special emphasis on historical linguistics. The course will focus on the development of the Spanish language with emphasis on etymological and phonological changes. Recommended for prospective teachers of Spanish.

**SPANISH 4328 Spanish Phonetics and Phonology: 3 semester hours**

Prerequisites: SPANISH 3326 or equivalent. This course, taught in Spanish, is a detailed study of the sound system of Spanish. The course includes an articulatory and acoustic description of Spanish sounds and suprasegmental features (including stress and intonation patterns). Students will learn to represent Spanish speech sounds and patterns through transcription. The course additionally incorporates a comparison of English and Spanish sound systems along with an introduction to major differences in pronunciation across different varieties of Spanish.

**SPANISH 4330 Cervantes: 3 semester hours**

Prerequisite: SPANISH 3280. A study of Don Quixote in relation with author's life and with the cultural background of the Spanish Golden Age. Independent readings on other works of Cervantes.

**SPANISH 4331 Picaresque And Satirical Prose (1550-1650): 3 semester hours**

Prerequisite: SPANISH 3280. A study of Renaissance and Baroque prose in its social context. All readings and discussions on Spanish.

**SPANISH 4345 Spanish American Literature Of The Twentieth Century: 3 semester hours**

Prerequisite: SPANISH 3281. A study of the leading Spanish American poets, essayists and novelists of this period as interpreters of contemporary man's dilemma and the "pathos" and "ethos" of their culture.

**SPANISH 4351 Spanish American Fiction In The Twentieth Century: 3 semester hours**

Prerequisite: SPANISH 3281. The role of prose fiction in Spanish American literary and cultural history from World War I to the present.

**SPANISH 4390 Special Readings: 1-3 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports and conferences.

**SPANISH 4399 Seminar On Hispanic Literature: 3 semester hours**

Required of major students in the senior year. Subject to be announced every year by the instructor in charge of the seminar.

**SPANISH 5172 Introduction to Creative Writing in Spanish: 3 semester hours**

Prerequisites: Graduate Standing or permission of instructor. This course will be presented in two parts. First, students will read literature samples and receive theory for creative writing; and second, they will explore their own creativity by writing poetry, essays and short stories through exercises and examples given by the instructor.

**SPANISH 5199 Intensive Advanced Immersion Experience: 1-3 semester hours**

Prerequisites: In-service teacher of target language or enrollment in post degree completion program  
Bulletin description: Designed for in-service and pre-service/post baccalaureate foreign language teachers, this course focuses specifically on enhancing oral proficiency in the target language and enriching cultural knowledge for purposes of classroom language instruction. The course may simulate a study abroad immersion experience or may be taught within the context of a study abroad program. This course may be repeated, provided the topics vary, for a maximum of 3 credits.

**SPANISH 5311 Advanced Topics In Spanish Culture: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Selected topics in Spanish culture; may be repeated for credit with a different topic. Students will be expected to conduct an independent research project. Language of instruction is Spanish.

**SPANISH 5312 Advanced Topics in Hispanic Literature: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Selected topics in Hispanic literature taught in Spanish. This course may be repeated for credit provided that the topic is different each time.

**SPANISH 5323 Spanish Second Language Acquisition: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. This course, taught in Spanish, provides an introduction to the theoretical and methodological foundations of second language acquisition on Spanish. Key topics in the field are illustrated through examples from Spanish, such as learner strategies, the role of formal instruction, target language input, influence from the first language, and effects of study abroad. Students read and critique relevant literature on the acquisition of different phonological, morphosyntactic, lexical, and disclosure features of Spanish as a second language. Analyses of Spanish interlanguage data are also conducted.

**SPANISH 5324 Advanced Spanish Sociolinguistics: 3 semester hours**

Prerequisites: Graduate standing or consent of the instructor, and advanced proficiency in Spanish. This advanced course in Spanish linguistics examines how Spanish is used within its social context. Key theoretical and methodological concepts from the field of sociolinguistics are discussed as applied to the Spanish language. Topics include language and identity, speech style, gender and language use, language attitudes, languages in contact, bilingualism, and language change. The social context and implications of Spanish in the United States are also addressed. Students will complete a sociolinguistic research study design and presentation. Course taught in Spanish.

**SPANISH 5328 Spanish Phonetics and Phonology: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. This course, taught in Spanish, is a detailed study of the sound system of Spanish. The course includes an articulatory and acoustic description of Spanish sounds and suprasegmental features (including stress and intonation patterns). Students read and critique state-of-the-art experimental research on second language Spanish phonology and conduct analyses of Spanish phonological data. The course additionally incorporates a comparison of English and Spanish sound systems along with an introduction to major differences in pronunciation across different varieties of Spanish.

# Sociology

## General Information

### Degrees and Areas of Concentration

Sociology is the discipline that addresses the most pressing and controversial social issues of our times. The Sociology program is committed to undergraduate education in the techniques and insights of sociological inquiry. Through research and scholarship, the department contributes to informed public policy and stimulates discussion about the challenges of urban life and globalization. Our commitment to these ends advances the University's mission to meet the diverse needs of the state's largest metropolitan area.

The Sociology program offers courses leading to the B.A. in sociology and the B.S. in sociology, and a minor. The sociology minor is an excellent choice to combine with a second minor to create a Bachelor of Liberal Studies B.A., which can be completed on-campus or online. Students may choose to supplement their core education in sociology with coursework in other areas of their choice, such as African and Africana studies, anthropology, criminology and criminal justice, East Asian Studies, gender studies, gerontology, international studies, or trauma studies.

### Student Experience

Students receive training in a variety of social research methods, including questionnaire survey research, social statistical analysis, qualitative methods, and ethnographic fieldwork. They also have the opportunity to gain hands-on experience in urban community-based research.

Sociology students work with faculty who conduct research in Japan, South Africa, the St. Louis area, and on the internet. They research topics such as urban youth violence, Japanese business and society, new media and the role of technology in society. Students also have the opportunity to study with faculty in the Anthropology program, who work in China, Japan, Ghana, and elsewhere, on topics such as gender, aging, sport, language, and girls' culture.

The Sociology program is a leader of the University of Missouri system in innovative online education. Several courses offer the flexibility of attending an in-class lecture or accessing the lecture and course material online, according to the individual's schedule.

### Department Awards and Honors

The Alumni Agent Scholarship and the Sociology Alumni Scholarship are awarded by faculty annually on the basis of merit. In addition, one outstanding senior, junior, and freshman are recognized annually based on merit. The Outstanding Sociology Minor Award is presented to the graduating student with the most outstanding minor GPA record.

Department Honors in Sociology are awarded to B.A. and B.S. degree candidates in sociology with an overall grade point average of 3.2 or better, who have completed SOC 4350, Special Study.

### Career Outlook

The Sociology Program teaches the transferable job skills that enable students to rationally analyze social issues and arrive at effective solutions. These skills are valuable for careers in health and social services; human resources; community planning; non-profit leadership; consumer marketing research and consulting; and jobs involving social research in corporate, non-profit, and government settings. Sociology also provides a solid foundation for graduate school in any of the social

sciences, and for professional training in fields such as law, medicine, and social work.

## Undergraduate Studies

### General Education Requirements

Students must satisfy the university and college General Education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>). Courses in sociology may be used to meet the social science requirement. The foreign language requirement for the B.A. degree may be satisfied in any language. No course in which a grade below a C- is received will count toward satisfying the core requirement.

### Learning Goals and Outcomes

At the end of the program, students should have these competencies:

1. Graduates will understand the discipline of sociology and demonstrate an ability to think critically about society. They will understand the contemporary relevance of basic sociological concepts, including culture, socialization, stratification, social structure, institutions, social change, and globalization.
2. Graduates will understand the role of theory in sociology and be able to distinguish micro and macro theory. They will demonstrate an understanding of the role of race, ethnicity, gender, age, and class in social differentiation.
3. Graduates will demonstrate an understanding of the reciprocal relationships between individuals and society, and be able to demonstrate how societal and structural factors influence individual behavior and the development of the self.
4. Graduates will be able to explain the sources of urban inequality. They will be able to utilize sociological evidence to analyze social policy and make policy recommendations.
5. Graduates will master the application of qualitative and quantitative methods to social phenomena, demonstrate mastery of relevant computer and digital research skills, know how to design a community-based research study, and know how to convey data findings in a research report.
6. Graduates will be able to describe and apply the principles of ethical practice as a sociologist. They will value the internal diversity of American society and appreciate the role of the U.S. in globalization.

## Degree Requirements

### Bachelor of Arts in Sociology

#### General Education Requirements

Majors must satisfy the university and college general education requirements. Any foreign language may be used to meet the language requirement for the B.A. degree.

All required courses for the major must be completed with a grade of C- or better. Courses counting toward the major requirements may not be taken on a satisfactory/unsatisfactory basis.

The following **six core courses (18 credit hours)** are required:

- 1 Students who enroll in SOC 4307 must take a section approved by the department.

The total number of hours required for the B.A. degree is a minimum of 33. Students may elect to take up to, but not to exceed, 12 additional hours in sociology courses of their choice.

SOC 1010	Introduction To Sociology	3
SOC 2160	Social Psychology	3
SOC 3210	Sociological Theory	3
SOC 3230	Research Methods	3
SOC 4307	Community-Based Research in Sociology <sup>1</sup>	3
or SOC 4040	Survey Research Practicum for Sociology	

One college level statistics course from the following list, or another course approved by a department advisor: 3-4

CRIMIN 2220	Statistical Analysis In Criminology And Criminal Justice	
MATH 1105	Basic Probability And Statistics	
MATH 1310	Elementary Statistical Methods	
MATH 1320	Applied Statistics I	
PSYCH 2201	Psychological Statistics	
SOC 3220	Social Statistics	

In addition to the core courses, five courses at the following levels are required, of which a minimum of three must have the SOC designation (and two may have an ANTHRO designation).

In addition to SOC 1010, 3 credit hours or one course in Sociology numbered 1000-1999 or from the following list of Anthropology courses: 3

ANTHRO 1011	Introduction To Cultural Anthropology	
ANTHRO 1021	The Body In Culture	
ANTHRO 1025	World Cultures	
ANTHRO 1041	Sex And Gender Across Cultures	
ANTHRO 1163	Disagreement, Difference, Diversity	

In addition to SOC 2160, 3 credit hours or one course in Sociology numbered 2000-2999; or from the following list of Anthropology courses: 3

ANTHRO 2105	Human Variation	
ANTHRO 2111	Cultures Of East Asia	
ANTHRO 2114	Cultures Of The Near And Middle East	
ANTHRO 2120	Native Peoples Of North America	
ANTHRO 2121	Native American Spirituality	
ANTHRO 2123	Cultures Of Oceania	
ANTHRO 2124	Cultures Of Africa	
ANTHRO 2192	Anthropological Perspectives on Western Culture	

In addition to SOC 3210, SOC 3220, and SOC 3230, 3 credit hours or one course in Sociology 3000-3999; or from the following list of Anthropology courses: 3

ANTHRO 3211	Language and Society	
ANTHRO 3212	Medical Anthropology	
ANTHRO 3215	Aging Across Cultures	
ANTHRO 3216	Cognition Across Cultures	
ANTHRO 3235	Women In Sub-Saharan Africa: A Contemporary Perspective	
ANTHRO 3236	Sex Trafficking in Cross-Cultural Perspective	
ANTHRO 3237	Japanese Popular Culture	
ANTHRO 3270	Human Ecology, Cultural Collapse, and Sustainable Developments	
ANTHRO 3291	Current Issues In Anthropology	

In addition to SOC 4040 or SOC 4307, 6 credit hours or two courses in Sociology numbered 4000-4999, 6

Total Hours 33-34

## Residency Requirement

Bachelor of Arts majors must complete a minimum of 12 hours of upper-level (3000-4000) Sociology courses in residence, including SOC 3230 and either SOC 4040 or SOC 4307

## Bachelor of Science in Sociology

### General Education Requirements

Majors must satisfy the university and college general education requirements. Foreign language proficiency is not required, although students are encouraged to take foreign language courses.

All required courses for the major must be completed with a grade of C- or better. Courses counting toward the major requirements may not be taken on a satisfactory/unsatisfactory basis.

The following **six core courses (18 credit hours)** are required:

### Core Courses

SOC 1010	Introduction To Sociology	3
SOC 2160	Social Psychology	3
SOC 3210	Sociological Theory	3
SOC 3230	Research Methods	3
SOC 4307	Community-Based Research in Sociology <sup>1</sup>	3
or SOC 4040	Survey Research Practicum for Sociology	

One college-level statistics course from the following list, or another course approved by a department advisor: 3-4

CRIMIN 2220	Statistical Analysis In Criminology And Criminal Justice	
MATH 1105	Basic Probability And Statistics	
MATH 1310	Elementary Statistical Methods	
MATH 1320	Applied Statistics I	
PSYCH 2201	Psychological Statistics	
SOC 3220	Social Statistics	

In addition to the core courses, seven courses at the following levels are required, of which a minimum of five must have the SOC designation (and two may have an ANTH designation).

In addition to SOC 1010, 6 credit hours or two courses in Sociology numbered 1000-1999 or from the following list of Anthropology courses: 6

ANTHRO 1011	Introduction To Cultural Anthropology	
ANTHRO 1021	The Body In Culture	
ANTHRO 1025	World Cultures	
ANTHRO 1041	Sex And Gender Across Cultures	
ANTHRO 1163	Disagreement, Difference, Diversity	

In addition to SOC 2160, 3 credit hours or one course in Sociology numbered 2000-2999; or from the following list of Anthropology courses: 3

ANTHRO 2105	Human Variation	
ANTHRO 2111	Cultures Of East Asia	
ANTHRO 2114	Cultures Of The Near And Middle East	

ANTHRO 2120 Native Peoples Of North America

ANTHRO 2121 Native American Spirituality

ANTHRO 2123 Cultures Of Oceania

ANTHRO 2124 Cultures Of Africa

ANTHRO 2191 Special Topics In Non-Western Culture

ANTHRO 2192 Anthropological Perspectives on Western Culture

In addition to SOC 3210, SOC 3220, and SOC 3230; 3 credit hours or one course in Sociology numbered 3000-3999, or from the following list of Anthropology courses:

ANTHRO 3211 Language and Society

ANTHRO 3212 Medical Anthropology

ANTHRO 3215 Aging Across Cultures

ANTHRO 3216 Cognition Across Cultures

ANTHRO 3235 Women In Sub-Saharan Africa: A Contemporary Perspective

ANTHRO 3236 Sex Trafficking in Cross-Cultural Perspective

ANTHRO 3237 Japanese Popular Culture

ANTHRO 3255 Oral History And Urban Culture In St. Louis <sup>2</sup>

ANTHRO 3270 Human Ecology, Cultural Collapse, and Sustainable Developments

ANTHRO 3291 Current Issues In Anthropology

In addition to SOC 4040 or SOC 4307, 9 credit hours or three courses in Sociology numbered 4000-4999.

Total Hours 39-40

<sup>1</sup> Students who enroll in SOC 4307 must take a section approved by the department.

<sup>2</sup> This course will not be offered in 2014-2015. Please contact the department for more information.

The total number of hours required for the B.S. degree is a minimum of 39. Students may elect to take up to, but not to exceed, 12 additional hours in sociology courses of their choice.

## Residency Requirement

Bachelor of Science majors must complete a minimum of 15 hours of upper-level (3000-4000) Sociology courses in residence, including SOC 3230 and either SOC 4040 or SOC 4307.

## B.A. or B.S. in Sociology with Teacher Certification

Students must complete the B.A. or B.S. in sociology requirements, as well as the requirements for teacher certification. (See the College of Education section of this Bulletin.)

## Requirements for the Minor

A minimum of 15 credit hours is required, of which a minimum of 12 hours must be in sociology. Three credit hours may be counted toward the minor from among the list of UMSL anthropology courses that are allowed for the sociology BA and BS majors. Candidates must have a cumulative grade point average of 2.0 or better in all courses pertaining to the minor. Department courses taken on a satisfactory/unsatisfactory basis may not be applied to the minor.

A minimum of 6 hours must be at the 4000 level (no more than 3 hours of either SOC 4350 (p. 65), Special Study, or SOC 4385 (p. 65), Internship, may be applied to this 4000 level requirement).

At least 9 credit hours must be courses offered by UMSL's Sociology program and must be beyond those applied to the candidate's major.

Candidates are encouraged to take some or all of the core requirements for the major.

For the capstone course requirement, students in the Bachelor of Liberal Studies program must take one additional 4000 level course in Sociology not used in the minor, excluding SOC 4350 (p. 65) (Special Study) or SOC 4385 (p. 65) (Internship).

## Sample Four Year Plans

Sociology BA (p. ) Sociology BS (p. )

### Sociology BA

First Year	Hours Spring	Hours
<b>Fall</b>		
INTDSC 1003 <sup>1</sup>	1 SOC 1000 level elective	3
SOC 1010	3 Foreign Language 1002	5
Foreign Language 1001	5 Math Proficiency	3
General Education <sup>2</sup>	3 General Education	3
ENGL 1100	3	
	<b>15</b>	<b>14</b>
<b>Second Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
SOC 2160	3 SOC 2000 level elective	3
Foreign Language 2101	3 Statistics Course	3-4
General Education	6 General Education	6
Elective or minor	3 Elective or minor	3
	<b>15</b>	<b>15-16</b>
<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
SOC 3210	3 SOC 3000 level elective	3
SOC 3230	3 General Education	6
ENGL 3100	3 Elective or minor	6
General Education	3	
Elective or minor	3	
	<b>15</b>	<b>15</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
SOC 4040 or 4307	3 General Education	6
SOC 4000 level elective	6 Elective or minor	10
Elective or minor	6	
	<b>15</b>	<b>16</b>

Total Hours: 120-121



- 1 INTDSC 1003 is required only for first-time freshmen and transfer students with less than 26 college credits.
- 2 The general education courses listed assumes the U.S. History/ Government requirement and the Cultural Diversity requirement are fulfilled with Social/Behavioral Science or Humanities general education courses.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Sociology BS

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 SOC 1000 elective	6
General Education <sup>2</sup>	9 Math Proficiency	3
ENGL 1100	3 General Education	6
SOC 1010	3	
	<b>16</b>	<b>15</b>
Second Year		
Fall	Hours Spring	Hours
SOC 2160	3 SOC 2000 level elective	3
General Education	6 Statistics course	3-4
Elective or minor	6 General Education	3
	Elective or minor	6
	<b>15</b>	<b>15-16</b>
Third Year		
Fall	Hours Spring	Hours
SOC 3210	3 SOC 4000 level elective	3
SOC 3000 level elective	3 General Education	6
ENGL 3100	3 Elective or minor	6
Elective or minor	3	
SOC 3230	3	
	<b>15</b>	<b>15</b>
Fourth Year		
Fall	Hours Spring	Hours
SOC 4040 or 4307	3 General Education	3
SOC 4000 level elective	6 Elective or minor	11
Elective or minor	6	
	<b>15</b>	<b>14</b>
Total Hours: 120-121		

- 1 INTDSC 1003 is required only for first-time freshmen and transfer students with less than 26 college credits.

- 2 The general education courses listed assumes the U.S. History/ Government requirement and the Cultural Diversity requirement are fulfilled with Social/Behavioral Science or Humanities general education courses.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Courses

### **SOC 1010 Introduction To Sociology: 3 semester hours**

An introduction to sociological approaches to human behavior including types of social organizations, patterns of social interaction, and social influences on individual conduct.

### **SOC 1040 Social Problems: 3 semester hours**

Conditions defined by society as social problems, as well as potential solutions, are examined from various sociological perspectives. Emphasis is given to problem issues prevalent in metropolitan settings. Analyses focus on victims and beneficiaries of both problem conditions and alternative solutions.

### **SOC 1051 Sport, Culture, and Society: 3 semester hours**

SAME AS ANTHRO 1051. What is the relationship between sport, culture, and society? This course takes a critical and analytical approach to the relationship between sport and socio-cultural issues and institutions: values, education, socialization, deviance, violence, inequality, the mass media, and economics. Students will investigate the functions of sport in various cultures and societies, analyze the relationship between sport and social problems, and develop policy recommendations that address these issues.

### **SOC 1061 Religion in Contemporary Society: 3 semester hours**

This course covers the impact of religion on political, social, cultural, and economic institutions. It examines the role of religion in contemporary social life, including the relationship between gender, ethnicity, race, class and religion; the contested place of religion in secularization and modernization; and the role of religion in political conflict.

### **SOC 1091 Introductory Topics in Sociology: 3 semester hours**

This course features special and current topics at the introductory level in the field of sociology. Examines the basic concepts and provides an understanding of the development of new trends and areas of study. May be repeated provided topic is different.

### **SOC 1241 Globalization and Social Change: 3 semester hours**

Introduces sociological approaches to globalization. Covers sociological concepts such as modernization, Westernization, global capitalism, and the information society. Themes include global governance and transnational society, the global diffusion of American popular culture and consumer culture, and the role of new media. Also discusses the anti-globalization movement and forms of social resistance.

### **SOC 1999 The City: 3 semester hours**

This course explores the central role of cities in the modern world. Covers processes of urbanization such as immigration, segregation and ghettoization, suburbanization, and sprawl. Explores the consequences of urban inequality and issues related to race and ethnicity, class, and gender in an urban context. Also covers urban landscapes, demographics, and lifestyles; and cities as centers of music and other forms of popular culture.



**SOC 2102 Introduction To Gender Studies: 3 semester hours**

Same as GS 2102, SOC WK 2102, and HIST 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

**SOC 2103 Gender Roles In Society: 3 semester hours**

Prerequisite: SOC 1010. The study of social processes through which gender roles are developed and acquired; the impact of gender roles on personal identity and social conduct; the relationship between gender roles and social inequality; and individual and social consequences of changing gender roles in contemporary society.

**SOC 2160 Social Psychology: 3 semester hours**

Same as PSYCH 2160. Prerequisite: PSYCH 1003 or SOC 1010. This course examines the behavior, thoughts, and feelings of individuals in their social environments. The content focuses not only on how people relate to one another, but also on the processes affecting their interactions with others. Specific topics include the self, social judgments, attitudes and persuasion, helping behavior, prejudice, aggression, attraction, conformity and obedience, and group processes. All Psychology majors taking this course instead of PSYCH 2270 must complete it with a grade of C- or higher.

**SOC 2180 Alcohol, Drugs And Society: 3 semester hours**

Same as CRIMIN 2180. Prerequisite: SOC 1010 or PSYCH 1003. This course examines the medical, legal and social aspects of alcohol and drug use. Medical aspects considered include treatment approaches and the role of physicians in controlling such behavior. In the legal realm, past and present alcohol and drug laws are explored. Cultural and social influences on alcohol and drug use are discussed.

**SOC 2192 Special Topics in Sociology: 3 semester hours**

This course focuses on a specific society or group of societies utilizing sociological approaches. Examines environmental, economic, social, political, ethnic, religious, linguistic and/or cultural domains. Students are exposed to basic sociological concepts for understanding diverse societies in their historical and/or contemporary contexts. May be repeated provided topic is different.

**SOC 2200 Languages and World View: 3 semester hours**

Same as FGN LANG 2100 and ANTHRO 2100. Prerequisites: Completion of two semesters of one foreign language at the college level. This course investigates the extent to which peoples' linguistic and cultural background informs their understanding of the world. Experts on a variety of major Western and non-Western languages will introduce students to differences in ideas about time, space, human relationships, and other issues based on language. The course will also analyze common cultural misunderstandings among native speakers of English and speakers of other languages.

**SOC 2201 Deviance and Society: 3 semester hours**

The study of traits and behaviors that violate social norms and elicit negative reactions. Explores the establishment of categories of deviance; the motivations behind deviant behavior; the identification of individuals and groups as deviant; the effects of institutionalization and social control upon the deviant; and the efforts of deviants to eradicate the label society has placed upon them.

**SOC 2202 Urban Sociology: 3 semester hours**

Covers classical works and contemporary theories in urban sociology from the nineteenth to the twenty-first centuries. Examines urbanism and community, forms and functions of cities, inequality and social difference, gender and sexuality, globalization and urban change, immigration and its impact on cities, and urban exclusion/social resistance. Includes reading well-known ethnographic works on such topics as sex work, homelessness, drug users and crackhouses, life in corner bars, gang members, and other alternative subcultures.

**SOC 2224 Marriage And The Family: 3 semester hours**

Same as GS 3224. The study of patterns of close relationships, and how these relationships are influenced by larger social forces. Topics include love, dating, mate selection, cohabitation, alternative lifestyles, working families, parenting, single mothers, families in crisis, domestic violence, and divorce. Universal and variable aspects of family organization, family role systems, and changes in family social structure are considered.

**SOC 2280 Technology And Society: 3 semester hours**

Examines the role of technology in the development of today's industrial and post-industrial societies. Topics include the social and cultural origins of technological innovation; the connection between technology and urbanization; and the impact of technological change on beliefs and values. Outlines the transition from industrial society to the post-industrial "information society," and the role of technology in globalization.

**SOC 2316 Power, Ideology And Social Movements: 3 semester hours**

This course explores how power and ideology operate in the advanced modern world. It investigates the historical and institutional contexts that help explain uprisings and discontents in the twentieth and twenty-first centuries, such as the Occupy Wall Street movement, the political struggles in the Middle East, and the uprisings and social movements throughout Latin America. Topics include an overview of the key works of Marxist theory and major radical social thinkers. Among the issues examined is the potential for social movements to produce revolutionary action resulting in new social systems.

**SOC 2338 Health & Society: 3 semester hours**

Exploration of social dimensions and issues related to health and illness such as access to the health care delivery system; factors influencing prevention, utilization and compliance; changing relationships among health care providers and consumers; health care costs, trends, and cross-cultural variations.

**SOC 3210 Sociological Theory: 3 semester hours**

Prerequisite: SOC 1010 or consent of instructor. The nature of sociological theory. An investigation of theory from Comte through contemporary developments. Contributions made by theorists in related disciplines.

**SOC 3211 Language and Society: 3 semester hours**

Same as ANTHRO 3211. Prerequisites: ANTHRO 1011 or SOC 1010 or consent of instructor. Variable topics in the subfield of linguistic anthropology will be explored. The focus of the course may include study of communication as part of our evolutionary heritage, the use of language as an index of social and cultural change, language and gender, or other topics.

**SOC 3220 Social Statistics: 3 semester hours**

Same as ANTHRO 3220. Prerequisite: SOC 1010 or ANTHRO 1011 and MATH 1020 or MATH 1030. Issues and techniques of statistical analysis relevant to quantitative sociological research e.g. elementary probability, measurements of central tendency and dispersion, measures of relationships including linear regression and correlation, inferential and nonparametric statistics. The course includes an introduction to computer-based statistical analysis.

**SOC 3224 Families in Global Perspective: 3 semester hours**

Same as GS 3224. Prerequisites: SOC 1010 or consent of instructor.

This course presents research from the fields of demography, sociology, economics, and public policy in order to develop a broader understanding of the causes and consequences of population aging, one of the major demographic changes faced by social institutions worldwide. Attention to the global diversity of human experiences by age, gender, socioeconomic status, and health.

**SOC 3230 Research Methods: 3 semester hours**

Prerequisites: SOC 1010 and satisfaction of mathematics proficiency requirement or consent of instructor. Research planning and interpretation, principles of research design, measurement, and sampling. Techniques for the collection, analysis, and presentation of data. The course also includes an introduction to the Statistical Package for the Social Sciences (SPSS) and lab exercises.

**SOC 3237 Japanese Popular Culture: 3 semester hours**

SAME AS ANTHRO 3237. Prerequisites: ANTHRO 1011. Through biographies, fiction, films, anime, manga, television, music, magazines, and other media, the course investigates a range of topics related to Japanese history, social diversity, subcultural identity, gender, demographic change, and media. The study of Japanese popular culture is ideal for understanding theoretical issues such as the construction of gender and sexuality, identity formation, nationalism, emerging youth cultures, and the processes of globalization and localization. Satisfies University cultural diversity requirements.

**SOC 3250 Sociology Of Victimization: 3 semester hours**

Same as GS 3250. Prerequisite: SOC 1010. This course examines the role of social factors in a wide range of kinds of victimization--crime, violence, natural disasters, accidents, disease, etc. The topic of social reactions to various kinds of victimization is also covered. Sociological theories of victimization are emphasized.

**SOC 3260 Social Interaction In Small Groups: 3 semester hours**

Prerequisites: SOC 2160 or PSYCH 2160 or consent of instructor. Analysis of human interaction with emphasis on group problem solving, group structure, and group process.

**SOC 3268 The Sociology Of Conflict: 3 semester hours**

Prerequisite: SOC 1010 or consent of instructor. The conditions under which social conflicts arise, develop, and are terminated (or in some cases resolved) are examined. The functions of different levels of conflict are studied to determine the potential effects and outcomes of planned intervention.

**SOC 3280 The Networked Society: 3 semester hours**

Prerequisites: SOC 1010, ANTHRO 1011, or introductory course in another social science, or consent of instructor. Explores the effects of modern information technology on societies worldwide. Covers the ways in which new technologies of communication have created increasingly networked local and global societies, as well as to the ways in which they have created new social problems.

**SOC 3291 Current Issues in Sociology: 3 semester hours**

Prerequisites: Prerequisite: SOC 1010 or ANTHRO 1011, or consent of instructor. Selected topics in sociology, with emphasis on current issues and trends in the field. May be repeated provided topic is different.

**SOC 3344 Problems Of Urban Community: 3 semester hours**

Prerequisite: SOC 1010, junior standing or consent of instructor. Issues of inequality and identity in cities, with emphasis on the consequences of urban growth; processes of class, racial, and ethnic group formation; and urban poverty. Also covers local community organization and politics, and the role of popular culture and religion in community identities.

**SOC 3600 Management and Organizational Behavior: 3 semester hours**

Same as MGMT 3600. Prerequisites: Junior standing and a 2.0 campus GPA. This course involves the study of the behavior of individuals and groups in an organizational setting. Specific topics examined include: motivation, leadership, organizational design, and conflict resolution, as well as basic coverage of management principles. In covering these topics, both classic and current perspectives are provided.

**SOC 4040 Survey Research Practicum for Sociology: 3 semester hours**

Prerequisite: Junior standing, SOC 3230, college-level statistics course, and consent of instructor. The execution of a sample survey, including establishing study objectives, sampling, questionnaire construction, interviewing, coding, data analysis, and presentation of results. May be repeated provided the course topic is different.

**SOC 4100 Introduction to Feminist and Gender Theory: 3 semester hours**

Same as GS 4100. Prerequisites: GS 2102. This class serves as an initial intellectual investigation into gendered ideologies (such as the effects of race, ethnicity, nationality, socioeconomic class, sexuality, and religion) and functions as a bridge to later advanced gender theory and methods courses. Topics include interdisciplinary feminist theories (with a focus on gender equality), including masculinity theory, queer theory, muted group theory, and other evolving frameworks.

**SOC 4150 Feminist Theory and Social Research: 3 semester hours**

Same as GS 4150. Prerequisites: GS 2102 and Junior Standing or consent of instructor. This course provides an in-depth examination of feminist theoretical contributions to social science research. We begin by examining the 20th century roots of contemporary feminist theories. With these foundations in place, we then shift to an investigation of how feminist theory has informed sociological research by examining current feminist understandings of gender, race, class and sexual inequalities across a range of contemporary social problems. Fulfills WGS feminist theory requirement.

**SOC 4160 Geographic Information Systems in Anthropology & Sociology: 4 semester hours**

Same as ANTHRO 4160. Prerequisites: ANTHRO 1005 or ANTHRO 1011 or ANTHRO 1019 or SOC 1010 or consent of instructor. Instruction in use of GIS software to record and analyze findings in archaeology, biological anthropology, cultural anthropology, and sociology. Emphasis is placed upon research design, development of data collection methodologies, and the use of GIS in describing and explaining human behavior and its relationship to the physical environment.

**SOC 4300 Communities And Crime: 3 semester hours**

Same as CRIMIN 4300. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the sources, consequences, and control of crime within communities. Emphasis on social and ecological theories of crime, and on population instability, family structure, and the concentration of poverty as causes of crime.

**SOC 4307 Community-Based Research in Sociology: 3 semester hours**

Prerequisites: Junior standing, SOC 3210, SOC 3230, and completion of junior-level writing requirement. An advanced course in qualitative/ethnographic modes of inquiry, building on research and analytical skills learned in previous courses. Some quantitative methods may supplement the research when appropriate. Students experience the process of discovery, representation, presentation, and justification based on fieldwork and/or archival research. The focus is on applying sociological knowledge to practical issues faced by communities and institutions in the St. Louis area. May be repeated provided the topic is different.

**SOC 4312 Sociology Of Wealth And Poverty: 3 semester hours**

Prerequisite: SOC 1010, junior standing or consent of instructor. Theory and research on social stratification and inequality in contemporary societies.

**SOC 4320 Forms Of Criminal Behavior: 3 semester hours**

Same as CRIMIN 4320. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Examination of major types of criminal behavior including violent, property, public order, and organizational offenses. Emphasis on theories of and responses to these crimes.

**SOC 4325 Gender, Crime & Justice: 3 semester hours**

Same as CRIMIN 4325 and GS 4325. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the role of gender in crime and in the justice system. Emphasis on gender differences in crime commission, criminal processing, and the employment of women in criminal justice agencies. Fulfills Criminology diversity requirement.

**SOC 4331 Qualitative Methods In Social Research: 3 semester hours**

Prerequisites: Junior Standing, SOC 3230, college-level statistics course; or consent of instructor. This course is devoted to qualitative methods including participant observation, ethnographic fieldwork, intensive interview, content analysis, and oral history. Considers the place of these kinds of techniques in social research, as well as the issues raised by them. Involves participation in individual or group research projects using one or more of the methods learned.

**SOC 4336 Sociology of Organizations: 3 semester hours**

Prerequisite: SOC 1010 and junior standing or consent of instructor. This course examines the internal and external forces that influence the structures, adaptive flexibility, and actions of public and private organizations and agencies. Specific foci include: organizational responses to opportunities, constraints, and contingencies in their surrounding environments; sources of conflict and impediments to organizational goal attainment; and strategies for increasing organizational effectiveness, efficiency, and chances for survival.

**SOC 4340 Race, Crime, And Justice: 3 semester hours**

Same as CRIMIN 4340. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the involvement of racial minorities in crime and the criminal justice system. Emphasis on group differences in offending, processing, victimization, and employment in criminal justice agencies. Fulfills CCJ diversity requirement.

**SOC 4350 Special Study: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports, and field work.

**SOC 4354 Sociology Of Business And Work Settings: 3 semester hours**

Prerequisite: SOC 1010, junior standing or consent of instructor. The sociology of work and occupations in America, Europe, and Asia; organization structures and worker participation; worker attitude, behaviors, and commitment; the socialization of the worker; determinants of worker behavior; social problems of work and business; and the impact of community on the work place and business behavior.

**SOC 4356 Sociology Of Education: 3 semester hours**

Prerequisite: SOC 1010 and junior standing, or consent of instructor. Education as a social institution, its role as an agent of socialization, and its effect upon the processes of social change and social mobility. The relationship between the school and its community.

**SOC 4360 Sociology Of Minority Groups: 3 semester hours**

Same as GS 4360. Prerequisites: SOC 1010 and junior standing or consent of instructor. The study of dominant-subordinate group relations. Religion, ethnicity, race, and gender as factors in the unequal distribution of power.

**SOC 4361 Social Gerontology: 3 semester hours**

Same as GERON 4361. Prerequisites: SOC 1010 and junior standing or consent of instructor. Topics include: Sociological theories of aging, technological and social change and its effects on the environment of older people, and prejudice and discrimination against the elderly.

**SOC 4365 Sociological Writing: 3 semester hours**

Prerequisites: SOC 1010, ENGL 3100 and Junior standing, or consent of instructor. This course offers directed practice in the interpretation and reporting of sociological research in a wide range of styles, including those appropriate for research reports, journal articles, policy papers, non-technical magazines, books and monographs, as well as oral reports to diverse consumers.

**SOC 4378 Selected Topics In Social Psychology: 1-3 semester hours**

Prerequisite: PSYCH 2160 or SOC 2160 or consent of instructor. Focused examination of selected issues, concepts and methods in the study of social interaction. May be taken twice for credit.

**SOC 4380 Advanced Topics in Sociology: 1-3 semester hours**

Prerequisites: SOC 1010 and junior standing or consent of instructor. Examination of a specific sociological topic of current relevance in the community. May be repeated provided the topic is different.

**SOC 4385 Internship In Sociology: 1-6 semester hours**

Prerequisites: Junior standing and consent of instructor. Students participate in supervised placements in positions related to the profession of Sociology.

**SOC 4600 Masculinities: 3 semester hours**

Same as GS 4600. Prerequisites: SOC 2102 or consent of instructor. This course examines men and masculinities through a critical lens, looking carefully at an institutionalized system of gender relations and practices that is assumed to be a natural phenomenon that is culturally universal. The course explores various masculine behaviors, myths, ideologies, and experiences so that students can consider the relationship between masculine practice and social power and delineate choices for future directions. The course is necessarily interdisciplinary and may utilize tools and methods from the social sciences and the humanities. Satisfies WGS gender theory requirement.

# Biochemistry and Biotechnology

## General Information

### Degrees

The Biochemistry and Biotechnology Program provides academic programs leading to the undergraduate B.S. degree or the graduate M.S. degree in Biochemistry and Biotechnology. These degrees are offered in cooperation with the Department of Biology and the Department of Chemistry and Biochemistry. Faculty members in this program are engaged in teaching and research in areas such as biochemistry, genetics, molecular biology, cell biology and developmental biology. Majors have the opportunity through coursework, laboratories, seminars and research experience to develop the knowledge and skills necessary to enter the workforce or to go on with further graduate education.

### Career Outlook

The emerging Biotechnology sector is increasing the regional and national demand for workers with significant training in molecular biology, biochemistry, and genetics. The St. Louis metropolitan area has long been a major center for biochemistry and biotechnology, and in the past decade it has become a national hub for life sciences research and development activity. A degree in Biochemistry and Biotechnology provides students with the training they need to become part of the broad biotechnology and life sciences industries.

## Undergraduate Studies

### Degree Requirements

#### Bachelor of Science in Biochemistry and Biotechnology

##### General Education Requirements

Students must satisfy the university and college general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>). Some math or science courses required for the major may be used to meet the science and mathematics requirement of the university. There is no foreign language requirement for the degree.

All Biochemistry & Biotechnology majors are required to take a capstone seminar (either CHEM 4797 or BIOL 4797) during the semester in which they plan to graduate (the winter semester for students graduating in the summer). Students may not receive credit for both CHEM 4797 and BIOL 4797).

##### Satisfactory/Unsatisfactory Option

Up to 18 credit hours may be taken on a satisfactory /unsatisfactory (s/u). Excluded from this option are required courses in biology, chemistry, physics, and mathematics.

##### Non-major Biology or Chemistry courses

Courses in Biology with a number less than 1800 and courses in Chemistry with a number less than 1100 do not count toward the credit hours required for a major in biochemistry and biotechnology.

##### Biology Core Courses

BIOL 1831	Introductory Biology: From Molecules To Organisms	5
BIOL 2012	Genetics	3
BIOL 2013	Genetics Laboratory	2

BIOL 2482	Microbiology	3
BIOL 2483	Microbiology Laboratory	2
BIOL 3622	Cell Biology	3

##### Chemistry Core Courses

CHEM 1111	Introductory Chemistry I	5
CHEM 1121	Introductory Chemistry II	5
CHEM 2223	Quantitative Analysis	3
CHEM 2612	Organic Chemistry I	3
CHEM 2622	Organic Chemistry II	3
CHEM 2633	Organic Chemistry Laboratory	2
CHEM 3302	Physical Chemistry For The Life Sciences	3

##### Math and Physics Core Courses

MATH 1030	College Algebra	3
MATH 1035	Trigonometry	2
MATH 1100	Basic Calculus	3
or MATH 1800	Analytic Geometry And Calculus I	
PHYSICS 1011	Basic Physics I	4
PHYSICS 1012	Basic Physics II	4

##### Biochemistry and Biotechnology Core Courses

BIOL 4602	Molecular Biology (if both courses are taken, one can be used as an elective)	3
or BIOL 4612	Molecular Genetics Of Bacteria	
BIOL 4614	Biotechnology Laboratory I (if both courses are taken , one can be used as an elective)	4
or BIOL 4615	Biotechnology Laboratory II	
BIOL/CHEM 4712	Biochemistry	3
CHEM 4733	Biochemistry Laboratory	2
CHEM 4722	Advanced Biochemistry	3
BIOL 4797	Biochemistry and Biotechnology Seminar (Students may not receive credit for both BIOL 4797 and CHEM 4797)	1
or CHEM 4797	Biochemistry and Biotechnology Seminar	

##### Biochemistry and Biotechnology Elective Courses

Select two of the following:		6
BIOL 4550	Bacterial Pathogenesis	
BIOL 4602	Molecular Biology	
BIOL 4612	Molecular Genetics Of Bacteria	
BIOL 4614	Biotechnology Laboratory I	
BIOL 4615	Biotechnology Laboratory II	
BIOL 4622	Cellular Basis of Disease	
BIOL 4632	Nucleic Acid Structure And Function	
BIOL 4642	Plant Molecular Biology and Genetic Engineering	
BIOL 4652	Virology	
BIOL 4842	Immunobiology	
BIOL 4905	Research (up to 3 credit hours)	
BIOL 4920	Selected Topics (when relevant)	
CHEM 3643	Advanced Organic Chemistry Laboratory	
CHEM 3905	Chemical Research	
CHEM 4772	Physical Biochemistry	

Total Hours		80
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## Electives

Recommendations include basic statistics (MATH 1310 or MATH 1320), computer science, public speaking (COMM 1040), foreign language, ethics, and undergraduate research.

## Research Opportunity

Students may use up to 3 credit hours of undergraduate research as elective hours in the B.S. degree. This provides an opportunity to gain research experience under the supervision of a faculty member. The project will normally include a review of the literature, laboratory experience and a final research report.

## Minor in Biology

Students who complete the B.S. degree in Biochemistry and Biotechnology may also obtain a minor in biology by completing BIOL 1821, Introductory Biology : Organisms and the Environment. The minor must be approved by the chair of the Department of Biology. At least 9 hours of the biology course credits must be taken in residence at UMSL. Candidates must have a cumulative grade point average of 2.0 or better in the minor, and none of the courses may be taken on a satisfactory/unsatisfactory (s/u) basis.

## Minor in Chemistry

Students who complete the B.S. degree in Biochemistry and Biotechnology will also fulfill the course requirements for a minor in Chemistry. A GPA of at least 2.0 is required for the courses presented for the minor. At least three courses toward the Chemistry minor must be completed at UMSL.

## Learning Outcomes

Students often think of the physical and life sciences as areas in which one masters a collection of "scientific facts". However, an education in Biochemistry & Biotechnology involves much more than memorizing facts. Students in this program will develop a well-rounded set of competencies in several critical areas. These include:

- **Discipline-Specific Knowledge.** Graduates from this program will have a solid foundation in the content areas of chemistry, biology, and biochemistry. A certain emphasis on specific, descriptive data is necessary. But the larger emphasis is on a clear understanding of the overriding principles and theorems of these areas that allow students to evaluate specific data within a larger context.
- **Laboratory Skills.** Scientists not only learn the results of others, they work in the lab to generate new knowledge. Graduates will learn the basic skills associated with performing laboratory experiments in chemistry, biology, and biochemistry, and they will learn how to critically evaluate their data. This includes an appreciation of the potential sources of error associated with laboratory measurements.
- **Problem Solving Skills.** Graduates will develop the ability to solve problems in their discipline. In part, this expands on laboratory skills, as students learn how to interpret and evaluate their data. These skills also include learning how to take general principles from various areas of chemistry, biochemistry, and biology and apply them to the solution of specific problems.
- **Communication Skills.** Graduates must not only be able to solve problems, they must also be able to communicate those solutions to others. Graduates will learn how to write scientific reports and papers and will be able to make effective oral presentations of their results and ideas.

- **Scientific Literacy.** Scientists must be able to build on the previous work of others and to put their new results into the larger context of the field. This requires the ability to work effectively with the scientific literature. Graduates will be able to use the specialized search engines associated with the vast literature in chemistry, biology, and biochemistry to find and retrieve information. Graduates will also have the knowledge background necessary to read papers from the literature with good comprehension.
- **Professional Ethics.** Graduates will understand and respect the accepted standards of conduct associated with the scientific profession. This will include honestly and objectively evaluating and reporting data and demonstrating the proper respect for the published work of others.

## Graduate Studies

### Degree Requirements

#### Master of Science in Biochemistry and Biotechnology

The Biochemistry and Biotechnology Program offers three types of Master of Science degrees.

- One is a non-thesis option suitable for those with laboratory research experience or for others, such as educators, who do not require research experience.
- The second is a 32 credit hour Professional Science emphasis area that includes a strong business component for students who are interested in learning more about the business aspects of companies. This track may not be appropriate for students who are interested in pursuing a PhD or working primarily as laboratory scientists.
- The third option includes laboratory-based research under the supervision of one of the program faculty members, leading to a written thesis. All students admitted to the graduate program are considered to be in the non-thesis program. They may transfer into the thesis program after they have been accepted as a thesis student by one of the faculty.

### M.S. Admission Requirements

Applicants to the M.S. program must submit a completed application and personal data forms, two letters of recommendation from faculty at previously-attended colleges or universities, and transcripts of all previous postsecondary academic work. Applicants whose undergraduate degree is from a university outside of the United States must submit GRE scores (verbal, quantitative, and analytical). For students with a degree from a U.S. university, submission of Graduate Record Examination scores, although not required, is highly recommended. Admission as a regular graduate student requires graduation from an accredited college with a minimum grade point overall and in biology and chemistry courses of 3.0 (where A=4.0). Students will generally be expected to have completed a major in biology, chemistry, biochemistry or biotechnology. In addition to the Graduate School admission requirements, applicants should have completed an undergraduate course in biochemistry (equivalent to BIOL 4712 / CHEM 4712). Successful applicants will typically have completed courses in organic chemistry, cell biology, and genetics. Applicants may be asked to make up any deficiencies in these areas as a condition of enrollment.

All international applicants, except those from countries where English is the primary language, must take the TOEFL. Ordinarily, a score of 213 on the computer-based exam (550 on the paper-based exam or 80 on the internet-based exam) or better is required.



**Requirements**

Both the thesis and non-thesis options require a total of 30 graduate credit hours, of which at least half must be at the 5000-level or above. A maximum of 12 or 5 credit hours of Graduate Research (BIOL 6905 or CHEM 6905) may be applied toward the 30 credit hour total for the thesis or non-thesis options, respectively. Students must have a 3.0 GPA in non-research courses.

**Required Courses**

CHEM 4722	Advanced Biochemistry	3
CHEM 5774	Bioinformatics	3
BIOL 6615	Advanced Biotechnology Laboratory II	4
BIOL 6602	Advanced Molecular Biology	3
BIOL 6889	Graduate Seminar	2

**Elective Courses**

CHEM 4733	Biochemistry Laboratory	2
CHEM 4772	Physical Biochemistry	3
CHEM 5694	Special Topics In Organic Chemistry	3
CHEM 5794	Special Topics In Biochemistry	3
CHEM 6787	Problem Seminar In Biochemistry	1
CHEM 6905	Graduate Research In Chemistry	1-10
BIOL 4842	Immunobiology	3
BIOL 5069	Topics In Cellular And Molecular Biology	1
BIOL 6442	Advanced Developmental Biology	3
BIOL 6550	Advanced Bacterial Pathogenesis	3
BIOL 6602	Advanced Molecular Biology	3
BIOL 6612	Advanced Molecular Genetics Of Bacteria	3
BIOL 6622	Advanced Cellular Basis of Disease	3
BIOL 6632	Advanced Nucleic Acid Structure And Function	3
BIOL 6642	Advanced Plant Biology And Biotechnology	3
BIOL 6652	Advanced Virology	3
BIOL 6699	Graduate Internship In Biotechnology	1-4
BIOL 6889	Graduate Seminar	2
BIOL 6905	Graduate Research In Biology	1-10
BIOL 6920	Topics In Biology (when relevant)	2-5

**Professional Science Master's Emphasis**

(pending CBHE approval)

This track requires a total of 32 graduate credit hours, of which at least half must be at the 5000-level or above. Students take 21 credit hours of science courses (Biology and Chemistry) and 9 hours in business courses. In addition, each student is required to take 2 credit hours of either an on-campus practicum course or an off-campus internship.

**Required Courses in Biology and Chemistry**

CHEM 4722	Advanced Biochemistry	3
CHEM 5774	Bioinformatics	3
or BIOL 5436	Applied Bioinformatics	
BIOL 6615	Advanced Biotechnology Laboratory II	4
BIOL 6602	Advanced Molecular Biology	3
or BIOL 6612	Advanced Molecular Genetics Of Bacteria	
BIOL 6889	Graduate Seminar	2

**Required Internship or Practicum**

Choose one of the following:

CHEM/BIOL 5798 Practicum in Science in Business

CHEM/BIOL 5799 Internship in Science in Business

**Professional Science Business Electives** 9

MGMT 3623 Industrial And Organizational Psychology

BUS AD 5000 Economics For Managers

BUS AD 5100 Managerial Communication

MGMT 5600 Managing People in Organizations

MKTG 5700 Contemporary Marketing Concepts

BUS AD 5900 Law, Ethics And Business

**Elective Courses in Biology and Chemistry** 6

CHEM 4733 Biochemistry Laboratory

CHEM 4764 Interdisciplinary Topics In Biochemistry

CHEM 4772 Physical Biochemistry

CHEM 5694 Special Topics In Organic Chemistry

CHEM 5794 Special Topics In Biochemistry

CHEM 6787 Problem Seminar In Biochemistry <sup>1</sup>

CHEM 6905 Graduate Research In Chemistry <sup>2</sup>

or BIOL 6905 Graduate Research In Biology

BIOL 4842 Immunobiology

BIOL 6602 Advanced Molecular Biology

BIOL 6612 Advanced Molecular Genetics Of Bacteria

BIOL 6622 Advanced Cellular Basis of Disease

BIOL 6632 Advanced Nucleic Acid Structure And Function

BIOL 6642 Advanced Plant Biology And Biotechnology

BIOL 6652 Advanced Virology

BIOL 6920 Topics In Biology

Total Hours 32

<sup>1</sup> Can be repeated for up to 2 credit hours.

<sup>2</sup> Can be taken for up to 2 credit hours in either CHEM 6905 or BIOL 6905. Students must have a 3.0 GPA in non-research courses.

**Sample Four Year Plan****First Year**

Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 MATH 1035	2
BIOL 1831	5 CHEM 1111	5
ENGL 1100	3 General Education	6
General Education <sup>2</sup>	3	
MATH 1030	3	
	15	13

**Second Year**

Fall	Hours Spring	Hours
BIOL 2012	3 BIOL 2482	3
BIOL 2013	2 BIOL 2483	2
MATH 1100	3 CHEM 2223	3
CHEM 1121	5 General Education	6
General Education	3	
	16	14

**Third Year**

Fall	Hours Spring	Hours
BIOL 4614	4 BIOL 3622	3
CHEM 2612	3 PHYSICS 101:	4
PHYSICS 1011	4 Biochem/ Biotech Elective	3
ENGL 3100	3 General Education	3
General Education	3 CHEM 4712 or BIOL 4712	3
	<b>17</b>	<b>16</b>

**Fourth Year**

Fall	Hours Spring	Hours
CHEM 2622	3 BIOL 4602	3
CHEM 2633	2 CHEM 3302	3
CHEM 4722	3 CHEM 4733	2
CHEM 4797	1 General Education	3
Biochem/Biotech Elective	3 Elective or minor	3
Elective or minor	3	
	<b>15</b>	<b>14</b>

Total Hours: 120

- 1 INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.
- 2 The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science or Humanities general education course.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change*

## Biology Courses

### **BIOL 1010 Introduction to Student Biological Research: 1-2 semester hours**

Prerequisites: Permission of Instructor. An opportunity for high school students to develop individual research projects under faculty mentorship. Includes interdisciplinary lectures, demonstrations, seminars, and project guidance. Evaluation will be based on written and oral presentation of the research project and student portfolio.

### **BIOL 1012 General Biology: 3 semester hours**

Emphasis on fundamental principles of biology. BIOL 1012 can be applied toward fulfillment of the general education requirement in science. BIOL 1012 does not satisfy the prerequisite requirements in other courses in biology at the 2000 level or above. Students who plan to pursue a career in medicine or one of the medical-oriented professions should enroll in BIOL 1831 rather than BIOL 1012.

### **BIOL 1013 General Biology Laboratory: 2 semester hours**

Prerequisite: BIOL 1012 (may be taken concurrently). Laboratory course to accompany BIOL 1012. BIOL 1013 can be used to fulfill the general education requirements in a laboratory science. BIOL 1013 does not meet the prerequisite requirements for other courses in biology. Three and one-half hours of laboratory per week.

### **BIOL 1102 Human Biology: 3 semester hours**

Lectures and readings concerned with the reproduction, development, genetics, functional anatomy, behavior, ecology, and evolution of the human species. Three hours lecture per week. Fulfills Science/Math requirement.

### **BIOL 1131 Human Physiology And Anatomy I: 4 semester hours**

Prerequisite: BIOL 1012 or its equivalent. The basic aspects of the structure of the healthy human body and how it functions. Special emphasis is on how the human body adapts itself to its environment and how changes affect physiological activities. Three hours lecture and two hours laboratory per week.

### **BIOL 1141 Human Physiology And Anatomy II: 4 semester hours**

Prerequisite: BIOL 1131. A continuation of BIOL 1131. A study of the basic aspects of human physiology and anatomy. Three hours lecture and two hours laboratory per week.

### **BIOL 1162 General Microbiology: 3 semester hours**

Prerequisite: BIOL 1012 or its equivalent. A survey of microbiology structure, genetics, and physiology. Special emphasis will be placed on the transmission and control of such organisms as it relates to the maintenance of human health. Three hours of lecture per week.

### **BIOL 1202 Environmental Biology: 3 semester hours**

An examination of the biological basis of current environmental problems, with emphasis upon resources, energy, pollution and conservation. Three hours lecture per week. Fulfills Science/Math requirement.

### **BIOL 1821 Introductory Biology: Organisms And The Environment: 5 semester hours**

Prerequisites: A minimum of high school chemistry, ENGL 1100 or equivalent (may be taken concurrently), and placement into college algebra or higher. Required for students intending to major in biology or take specified biology courses at the 2000 level or above. This course presents an introduction to some of the principles of biology and scientific methodology applied to the organism and supraorganism levels of biology. Topics to be covered include: ecology, evolution, diversity, and population biology. Three hours of lecture and one hour of discussion per week.

### **BIOL 1831 Introductory Biology: From Molecules To Organisms: 5 semester hours**

Prerequisites: A minimum of high school chemistry and MATH 1030; ENGL 1100 or equivalent (may be taken concurrently). Required for students intending to major in biology or take specified biology courses at the 2000 level or above. This course presents an introduction to some of the principles of biology and scientific methodology applied to the molecular/ cellular through organ system levels of organization. Topics include: cell structure, metabolism, reproduction, heredity and major physiological processes regulated by organ systems. Three hours of lecture, three and one half hours of lab, and one hour of discussion per week.

### **BIOL 1999 Evolution for Everyone: 3 semester hours**

Evolution for Everyone explores the development of our current understanding by examining modern and ancient controversies, and by studying major processes by which change occurs. Lectures will present overviews and many examples on topics in history, mechanisms, and outcome of evolutionary change, and students will participate in classroom and online discussions based on readings, computer exercises, and data collection and analysis. Course may not be applied towards major in Biology. Not eligible for credit with BIOL 3302 (Introduction to Evolution) required for Biology majors.

**BIOL 2012 Genetics: 3 semester hours**

Prerequisites: BIOL 1831 (majors must also take BIOL 1821) MATH 1030, and CHEM 1111 or (CHEM 1081 plus CHEM 1091). Fundamental principles of inheritance, including classical genetic theory as well as recent advances in the molecular basis of heredity. Three hours of lecture per week. Fulfills Science/Math requirement.

**BIOL 2013 Genetics Laboratory: 2 semester hours**

Prerequisites: Concurrent registration in BIOL 2012, or by permission of instructor. Laboratory to accompany BIOL 2012. Three and one-half hours of organized laboratory time per week. Students may need to return to the laboratory at unscheduled times to complete some exercises.

**BIOL 2102 General Ecology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. An examination of the relationships between living organisms and their environment. Three hours lecture per week. Fulfills Science/Math requirement.

**BIOL 2103 General Ecology Laboratory: 2 semester hours**

Prerequisites: BIOL 2102 required (may be taken concurrently); a general statistics course strongly recommended. An analysis of environmental factors influencing the abundance and distribution of living organisms. Some classes will be held at field sites in and around St. Louis. Three and one-half hours of laboratory or field work per week.

**BIOL 2402 Vertebrate Anatomy, Evolution and Ecology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. Development, structure, function, interrelationships, and zoogeography of vertebrate animals with particular attention to phylogenetic aspects. Three hours of lecture per week. Fulfills Science/Math requirement.

**BIOL 2403 Vertebrate Anatomy, Evolution and Ecology Laboratory: 2 semester hours**

Prerequisite: BIOL 2402 (may be taken concurrently). Laboratory to accompany BIOL 2402. Morphological analysis and systematic survey of major vertebrate groups. Overview of the vertebrate life forms and their adaptations to habitats and resources. Three and one-half hours of laboratory per week.

**BIOL 2482 Microbiology: 3 semester hours**

Prerequisites: BIOL 1831 (majors must also take BIOL 1821), MATH 1030, and CHEM 1111. Study of microorganisms, their metabolism, genetics, and their interaction with other forms of life. Three hours of lecture per week.

**BIOL 2483 Microbiology Laboratory: 2 semester hours**

Prerequisite: BIOL 2482 (may be taken concurrently). Experimental studies and procedures of microbiological techniques. Three and one-half hours of organized laboratory time per week. Students will need to return to the laboratory at unscheduled times to complete some exercises.

**BIOL 2501 Biology Of Plants: 5 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. A general discussion of the plant groups from algae through angiosperms. Plant morphology, physiology, reproduction and ecology will be discussed in lecture (three hours per week). The laboratory (three and one half hours per week) involves examination of representatives of the plant kingdom and experimentation in plant physiology and genetics. Fulfills both a lecture and laboratory requirement.

**BIOL 3001 Experiential Practicum in Biosciences: 1 semester hour**

Prerequisites: Consent of Biology Curriculum Committee. Credit for off-campus bioscience projects providing extraordinary student experience and service to a community in need.

**BIOL 3102 Animal Behavior: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. The study of invertebrate and vertebrate behavior, including neurophysiological, hormonal, developmental, genetic, ecological and evolutionary aspects of behavior; behavior interactions within and between populations. Three hours of lecture per week.

**BIOL 3103 Animal Behavior Laboratory: 2 semester hours**

Prerequisites: BIOL 3102 (may be taken concurrently). Observational and experimental studies of animal behavior in the field and laboratory. Three and one-half hours of formal laboratory time per week, but additional time may be required for independent projects. Some activities involve field trips or trips to the St. Louis Zoo.

**BIOL 3123 Tropical Resource Ecology Field Studies: 2 semester hours**

Prerequisites: BIOL 3122 (may be taken concurrently). The field component to the lecture and seminar course. Examines the patterns of use and exploitation of resources in the tropics by humans in the context of the theories of behavioral ecology. Two weeks of intensive field research and lectures in Guyana, South America during the second and third weeks of Summer Session I (trip costs to be borne by the student). Students may not receive credit for both BIOL 3123 and BIOL 5123. Offered in odd numbered years.

**BIOL 3202 Conservation Biology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. Introduction to the principles and theories of conservation biology. Course topics include biodiversity, extinctions, population modeling, habitat fragmentation, conservation area management, restoration ecology, and social science elements of conservation strategies. Class sessions will include lectures, discussions, and simulation exercises. Three hours of lecture per week.

**BIOL 3203 Conservation Biology Laboratory: 2 semester hours**

Prerequisite: BIOL 3202 (recommended to be taken concurrently). Laboratory to accompany BIOL 3202. Laboratory will include computer simulations of conservation problems using existing software, 2-3 field trips to local conservation projects, and field interviews with governmental and nongovernmental agencies. Three and one-half hours of laboratory per week.

**BIOL 3302 Introduction To Evolution: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831, and MATH 1030; BIOL 2012 strongly recommended. Introduction to the theory, events, and processes of organic evolution.

**BIOL 3622 Cell Biology: 3 semester hours**

Prerequisites: BIOL 1831, BIOL 2012, CHEM 2612, and MATH 1030. Examination of the organization and basic processes of cells including tissues, organelles, glycolysis, respiration, photosynthesis, trafficking, cytoskeleton, signal transduction, and cell division.

**BIOL 3699 Undergraduate Internship In Biotechnology: 1-4 semester hours**

Prerequisites: BIOL 1821, BIOL 1831, and CHEM 1111 and CHEM 1121 and consent of instructor. Concurrent enrollment in CHEM 2612 or higher is strongly encouraged. A 2.5 GPA and enrollment in the undergraduate Biotechnology Certificate Program is required. Internship will consist of a period of observation, experimentation and on-the-job training in a biotechnology laboratory. The laboratory may be industrial or academic. Credit will be determined by the number of hours a student works each week and in consultation between the intern's supervisor and instructor. Internship assignments will be commensurate with the education and experience of the student. Two credits may be used to fulfill the lab requirement.

**BIOL 3802 Vertebrate Physiology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831 and CHEM 1111 or CHEM 1081 plus CHEM 1091). Basic functional aspects of organ systems in relation to the physiochemical properties of protoplasm. Three hours lecture per week. Fulfills Science/Math requirement.

**BIOL 3803 Vertebrate Physiology Lab: 2 semester hours**

Prerequisite: BIOL 3802 (may be taken concurrently). Instrumental and experimental studies in physiology. Three and one-half hours laboratory per week.

**BIOL 4102 Behavioral Ecology: 3 semester hours**

Prerequisite: BIOL 3102 (BIOL 2102 recommended). Topics in animal behavior with an emphasis on ecological and evolutionary aspects of behavior. Topics will include the role of behavior in population regulation, habitat selection and spacing, feeding and predator-prey interactions, sexual selection, evolution of mating systems, and new approaches to animal communication. Three hours of lecture per week. Students may not receive credit for both BIOL 4102 and BIOL 6102.

**BIOL 4112 Evolution Of Animal Sociality: 3 semester hours**

Prerequisites: BIOL 3102, BIOL 2102, or BIOL 4182 recommended, or consent of instructor. The evolution of sociality, including a critical examination of sociobiological theories and alternative approaches to social evolution. Survey of social organization and behavior in arthropods, with an emphasis on social insects, & vertebrates Two hours of lecture, one hour of discussion per week. Students may not receive credit for both BIOL 4112 and BIOL 6112.

**BIOL 4122 Biometry: 3 semester hours**

Prerequisites: MATH 1030 and a minimum of 15 hours in biology. Reviews descriptive, analytical, and experimental methods useful for the statistical study of biological phenomena. Students will develop the skills needed to better appreciate and evaluate the published literature, as well as the ability to design their own research programs. Topics include: the collection and summarization of biological observations; development, design, and testing of hypothesis; analysis and presentation of data. Three hours of lecture per week. Fulfills the statistics requirement for the B.A. or B.S. degree in biology.

**BIOL 4182 Population Biology: 3 semester hours**

Prerequisite: BIOL 2102 and BIOL 2012 (BIOL 3302 recommended) Introduces concepts and mathematical models of population ecology and population genetics. By integrating the ecology and genetics of populations, the course goal is to understand the processes that contribute to microevolution of populations. Topics include: demography, metapopulation biology, natural selection, migration, gene flow, and genetic drift. Three hours of lecture per week. Students may not receive credit for both BIOL 4182 and BIOL 6182.

**BIOL 4192 Applications of Geographic Information Systems: 5 semester hours**

Prerequisites: BIOL 2102, BIOL 4122 or equivalent, and consent of instructor. Geographic Information Systems (GIS) are sophisticated computer-based systems for analysis, capture, presentation, and maintenance of geographically referenced data. This course provides a foundation in using GIS for spatial analysis. Although biological examples are primarily used, examples from a range of disciplines are employed to emphasize the use of GIS as a tool to support analysis and decision-making. Students will have hands-on use of GIS software during each session. An independent research project applying the spatial analysis tools learned in GIS to biological research will be required. Five hours of combined lecture and computer operations, plus 2-3 hours of open lab per week. Fulfills both a lecture and a laboratory requirement. Students may not receive credit for both BIOL 4192 and BIOL 6192.

**BIOL 4222 Tropical Ecology And Conservation: 3 semester hours**

Prerequisite: BIOL 2102, BIOL 4182, BIOL 5192, or equivalent. This Course Will Cover Research Areas In Tropical Population, Community And Ecosystem Ecology, With Emphasis On Inter-Species And Environment-Organism Interactions, Population Control Factors, And Genetic Structure Of Populations. Topics Include The Current Status And Causes Of Tropical Habitat Destruction, Ongoing Attempts To Manage Those Habitats, And Development Of Strategies Leading To Sustained Use Of Non-Renewable Resources. Three Hours Of Lecture Per Week. Students May Not Receive Credit For Both BIOL 4222 And BIOL 6222.

**BIOL 4245 Field Biology: 3 semester hours**

Prerequisite: Three biology courses and consent of instructor. Intensive study of the flora and fauna of selected natural areas of North America, including an extended field trip. Details of the field trip and course schedule will be posted in the Biology department preceding registration for the term in which the course will be offered. Students will be required to pay costs of travel and of the field trip. This is a laboratory course appropriate for advanced undergraduates and non-thesis Master of Science students. Students may not receive credit for both BIOL 4245 and BIOL 6245.

**BIOL 4270 Global Climate Change: 3 semester hours**

Prerequisites: BIOL 3302 or consent of instructor. Topics included are fundamental physical, meteorological, and biological circumstances of global climate change, as well as predictions of its future effects on biological diversity, including humans, and how those estimates are made. In addition, basic environmental economics and politics of climate change at local and global levels will be included. The course will be taught as a series of lectures and discussions led by guest experts in each of the subdisciplines covered. Students may not receive credit for both BIOL 4270 and BIOL 6270.

**BIOL 4299 Practicum In Conservation: 2 semester hours**

Prerequisites: Consent of instructor and BIOL 3643, Conservation Biology. This course is generally restricted to students officially enrolled in the Certificate Program in Conservation Biology. The course provides practical experience with conservation or environmental agencies. Specific placement will be selected according to student's interests and career goals as well as availability of agency openings. Course requirements include practical experience and final report on practicum experience.

**BIOL 4308 Transmission Electron Microscopy Hours: 3 semester hours**

Same as PHYSICS 4308 Course introduces students to transmission electron microscopy techniques and their applications to solving challenging materials and biological problems. Course includes fundamental principles (electron optics), electron-specimen interactions, diffraction of electrons, image formation and interpretation, image processing and analysis, energy dispersive X-ray spectroscopy, electron energy loss spectroscopy, and sample preparation of both biological and non-biological systems. Laboratory experiments will provide students "hands-on" experience with TEM operations and problem solving skills. Successful completion of the course enables students to independently operate transmission electron microscopes to perform basic research experiments. This course is ideal for students interested in ultrastructural or nanocharacterization of biological or materials systems. Two classroom hours and two hours of laboratory per week.



**BIOL 4402 Ornithology: 3 semester hours**

Prerequisites: BIOL 2102 and junior standing. Introduction to avian biology and ecology. Material to be covered will include basic adaptations of anatomy, physiology, and behavior of birds. There will be a strong emphasis on avian ecology and conservation. Specific topics will include flight, reproductive behavior, migration, foraging behavior, community structure, and current conservation concerns. The diversity of birds will be emphasized through comparisons between temperate and tropical regions. Three hours of lecture per week.

**BIOL 4403 Ornithology Laboratory: 2 semester hours**

Prerequisites: BIOL 4402 (may be taken concurrently), or consent of instructor. This course will introduce students to methods of identifying and studying birds. Labs will almost entirely be comprised of field trips to local areas and will emphasize diversity of birds, adaptations shown by different groups, and means of identification, particularly of birds found in Missouri. Field projects will focus on techniques for censusing birds, sampling foraging behavior, and studying habitat selection. Indoor periods will cover internal and external anatomy of birds. Slides and field trips to the St Louis Zoo will be used to survey the diversity of birds worldwide. Three and one-half hours of laboratory per week. Longer (e.g., Saturday) field trips will be made when appropriate.

**BIOL 4422 Entomology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. 9 additional hours of biology and upper-division standing. Development, structure, function, behavior and ecology of insects, including a systematic survey of the orders of Insecta. Three hours of lecture per week.

**BIOL 4423 Entomology Laboratory: 2 semester hours**

Prerequisites: BIOL 4442 (may be taken concurrently). Laboratory to accompany BIOL 4422. Studies of the morphology, physiology, and behavior of insects to give a sampling of biological studies of the class Insecta. Formation of a collection of insects, comprising a systematic survey of orders and principal families, will be an integral part of the course and will require additional time beyond the official lab hours. Three and one-half hours of lab per week.

**BIOL 4442 Developmental Biology: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 3622. A study of the basic principles that shape the embryonic and post-embryonic development of animals with an emphasis on the underlying cellular and molecular mechanisms. Specific topics include fertilization, determination of cell fate and differentiation, cell migration, establishment of the body plan, formation of selected organs and organ systems, stem cells, and limb regeneration. Environmental influences on development and the impact of developmental biology on modern medicine are also discussed. Three hours of lecture/discussion per week. Students may not receive credit for both BIOL 4442 and BIOL 6442.

**BIOL 4501 Flowering Plant Families: Phylogeny And Diversification: 5 semester hours**

Prerequisites: BIOL 1821, BIOL 1831 and junior standing or consent of instructor. Focusing on the flowering plant families of North America, the aim of the course is to give an understanding of their phylogeny and diversification. Student will also gain an understanding of plant morphology and anatomy, a basis for further developing their knowledge of plants. Three hours of lecture and three to four hours of laboratory per week. Students may need to return to the laboratory at unscheduled times.

**BIOL 4502 Evolution of Cognition: 3 semester hours**

Prerequisites: BIOL 3102 or Consent of Instructor; BIOL 3302 and PSYCH 2211 are strongly recommended. The evolutionary ecology of animal cognitive abilities. Topics include learning, memory, perception, navigation, and communication from an evolutionary perspective. The focus is on cognitive abilities as adaptations, which have evolved to solve specific environmental problems. Topics include empirical methods for assessing cognitive ability, experimental design, theoretical approaches for generating predictions, and the parsimonious interpretation of data. Two hours of lecture and one hour of discussion per week.

**BIOL 4550 Bacterial Pathogenesis: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482 Examination of the strategies bacterial pathogens use to infect animals. Topics include host immune responses to infection, bacterial virulence factors, regulation of bacterial virulence, and the cellular and molecular approaches used to study host-parasite interactions. Three hours of lecture per week. Students may not receive credit for both BIOL 4550 and BIOL 6550.

**BIOL 4602 Molecular Biology: 3 semester hours**

Prerequisites: BIOL 2012 and CHEM 2612. A study of the principles of molecular biology, with emphasis on understanding the genetic regulation of DNA, RNA, and protein synthesis and function in eukaryotic cells. Three hours of lecture per week. Students may not receive credit for BIOL 4602 and either BIOL 6602, or any course previously called Gene Expression in Eukaryotes or Advanced Gene Expression in Eukaryotes.

**BIOL 4612 Molecular Genetics Of Bacteria: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. A study of the molecular biology of gene replication, transfer, and expression in bacterial cells. Topics include DNA replication, transcription and translation, mutagenesis, DNA repair and recombination, gene transfer, and the regulation of genes and global expression systems. Three hours of lecture per week. Student may not receive credit for BIOL 4612 and either BIOL 6612 or any course previously called Gene Expression in Prokaryotes or Advanced Gene Expression in Prokaryotes.

**BIOL 4614 Biotechnology Laboratory I: 4 semester hours**

Prerequisites: BIOL 2012 or consent of instructor. An introduction to the fundamental concepts that underlie the field of biotechnology. Both the basic principles of molecular biology and hand-on experience with the techniques of the field will be addressed through lectures, discussions, and a series of laboratory exercises. Two hours of lecture and four hours of laboratory per week. Fulfills a laboratory requirement only; may not be used to fulfill the higher level (4000-5000) lecture course requirement for the B.A. or B.S. degree in biology. Students may not receive credit for BIOL 4614 and a comparable biotechnology course from another institution.

**BIOL 4615 Biotechnology Laboratory II: 4 semester hours**

Prerequisites: BIOL 4614 and either BIOL 4602 or BIOL 4612, or consent of instructor. An in-depth look at theory and practice of biotechnology. Lectures and discussion will examine the underlying principles, and laboratory exercises will present hands-on experience with current techniques. One hour of lecture and six hours of laboratory per week. Fulfills a laboratory requirement only; may not be used to fulfill the higher level (4000-5000) lecture course requirement for the B.A. or B.S. degree in biology. Students may not receive credit for BIOL 4615 and BIOL 6615.



**BIOL 4622 Cellular Basis of Disease: 3 semester hours**

Prerequisites: BIOL 3622. A study of the structural organization and processes of eukaryotic cells, focusing on how defects in cellular function lead to genetic diseases and cancer. Topics of discussion may include membrane dynamics, intracellular trafficking, signal transduction, and the cell cycle. Three hours of lecture per week. Students may not receive credit for both BIOL 4622 and BIOL 6622.

**BIOL 4632 Nucleic Acid Structure And Function: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 4712 or equivalent, or consent of instructor. A comprehensive view of the structural properties of DNA and RNA that promote molecular interactions and biological function. Topics will include the physical properties of nucleic acids, the formation and biological importance of higher order structures, RNA enzymatic activities, nucleic acid-protein interactions, and RNA metabolism. Three hours of lecture per week. Students may not receive credit for both BIOL 4632 and BIOL 6632.

**BIOL 4642 Plant Molecular Biology and Genetic Engineering: 3 semester hours**

Prerequisites: BIOL 4602 or BIOL 4612. Topics may include molecular and cellular aspects of plant growth, development, and responses to environmental stress and pathogen attack, using the experimental approaches of genetics, molecular biology, and biochemistry. Plant growth manipulation and genetic engineering, including techniques required for DNA transfer and plant regeneration, as well as current and potential future applications, such as engineered resistance to stress, developmental engineering, and metabolic engineering, also will be covered. Three hours of lecture per week. Student may not receive credit for both BIOL 4642 and BIOL 6642.

**BIOL 4652 Virology: 3 semester hours**

Prerequisite: BIOL 2012 and BIOL 3622. This first half of the course entails a comparative study of the structure, replication, and molecular biology of viruses. The second half of the course focuses on the pathogenesis, control, and evolution of animal viruses. Three hours of lecture per week. Students may not receive credit for both BIOL 4652 and BIOL 6652.

**BIOL 4662 Human Pathology: 3 semester hours**

Prerequisites: BIOL 3622 or consent of the instructor. A study of disease processes as they affect the human body. The course will examine both the proximate causes and underlying mechanisms of disease. Specific conditions will be used to illustrate application of clinical approaches in determining the origin, development, and effects of a disease.

**BIOL 4712 Biochemistry: 3 semester hours**

Prerequisites: CHEM 2612 and either BIOL 1831 or CHEM 2622. (Same as CHEM 4712) Examines the chemistry and function of cell constituents, and the interaction and conversions of intracellular substances. Students may not receive credit for both BIOL 4712 and CHEM 4712.

**BIOL 4713 Techniques In Biochemistry: 2 semester hours**

Prerequisites: BIOL 4712 or CHEM 4712 (may be taken concurrently). Laboratory activities introducing fundamental qualitative and quantitative biochemical techniques. Student evaluation will be based on laboratory participation, student laboratory reports, and written examinations. Three and one-half hours of organized laboratory time per week. Students may need to return to the laboratory at unscheduled times to complete some experiments.

**BIOL 4797 Biochemistry and Biotechnology Seminar: 1 semester hour**

Prerequisites: Same as CHEM 4797. Senior standing in the Biochemistry and Biotechnology program. This course will focus on selected publications related to biochemistry and biotechnology from both refereed journals and news sources. Students are expected to participate in discussions and to prepare oral and written presentations. Completion of the Major Field Achievement Test in Biochemistry & Biotechnology is a course requirement. May not be taken for graduate credit.

**BIOL 4822 Introduction To Neuroscience: 3 semester hours**

Prerequisite: BIOL 3802 or consent of instructor. The study of nervous systems, featuring the cellular bases of initiation and conduction of the impulse, synaptic transmission, and the network integrative function of invertebrate and vertebrate nervous systems. This course emphasizes the multidisciplinary nature of the neurosciences, including anatomical, physiological and molecular approaches to understanding neural function. Three hours of lecture per week.

**BIOL 4842 Immunobiology: 3 semester hours**

Prerequisite: BIOL 3622 and CHEM 2612. The fundamental principles and concepts of immunology and immunochemistry. Emphasis on the relation of immunological phenomena to biological phenomena and biological problems. Three hours lecture per week.

**BIOL 4889 Senior Seminar: 2 semester hours**

Prerequisites: BIOL 1821, BIOL 1831, BIOL 2012, and BIOL 3302, with a total of at least 30 credits in Biology. Oral and written presentation by students of selected scientific papers or articles. Students are expected to participate in discussions of oral presentations by other students. May not be taken for graduate credit.

**BIOL 4905 Research: 1-3 semester hours**

Prerequisites: Consent of faculty research advisor. Research in an area selected by the student in consultation with and under the direct supervision of an UMSL biology faculty research adviser. Research opportunities are subject to availability and must be approved in advance of beginning research. The project may include the reading of pertinent literature, laboratory or field experience, including keeping of a logbook, and a summary paper and a presentation, all based on an average 8 hours per week per credit during a 15 week semester at the discretion of the instructor. Credit arranged. Course may be repeated for a total of up to 5 credit hours. A maximum of one lab requirement may be satisfied using any two BIOL 4905 credits. Additional credits may be applied toward the total biology hours required for the biology BA or BS. May not be taken for graduate credit.

**BIOL 4915 Biology Internship: 1-3 semester hours**

Prerequisites: Consent of faculty research advisor; generally restricted to junior and senior standing. Research in an area selected by the student to be conducted off-campus in a lab of a professional researcher or faculty person (the internship mentor) other than those in UMSL Biology. Research opportunities are subject to availability and must be approved in advance of beginning research by an UMSL biology faculty liaison and the internship mentor. The project normally includes the reading of pertinent literature, laboratory or field experience, including keeping of a logbook, and a summary paper and a presentation, all based on an average 8 hours per week per credit during a 15 week semester. Credit arranged. This course and Biol 4905 may be repeated in any combination for a total of up to 5 credit hours. A maximum of one lab requirement may be satisfied using any two BIOL 4905 and/or BIOL 4915 credits. Additional credits may be applied toward the total biology hours required for the biology BA or BS.

**BIOL 4920 Selected Topics: 1-10 semester hours**

Prerequisite: Junior standing and consent of instructor. Selected topics in biology. The topics will vary each semester. Topics offered for the following semester will be available in the departmental office. Credit arranged. May be taken more than once for credit.

**BIOL 4986 Laboratory In Teaching Life Sciences: 2 semester hours**

Same as SEC ED 4986. Prerequisite: TCH ED 3310. Discussion, development, utilization, and evaluation of equipment, materials, and techniques applicable to instruction in the life sciences. Must be taken concurrently with BIOL 4985/ SEC ED 4985.

**BIOL 5059 Topics In Ecology, Evolution, And Systematics: 1 semester hour**

Prerequisites: Graduate Standing. Presentation and discussion of faculty and student current research projects in behavior, ecology, evolution, and systematics. May be repeated.

**BIOL 5069 Topics In Cellular And Molecular Biology: 1 semester hour**

Presentation and discussion of student and faculty research projects and/or current research articles in molecular, cellular and developmental biology. May be repeated.

**BIOL 5079 Topics In Floristic Taxonomy: 1 semester hour**

Prerequisite: BIOL 2501 or equivalent, and graduate standing. Seminar course in systematics of higher plants, arranged in the Cronquist sequence of families, covering morphology, anatomy, palynology, biogeography, chemosystematics, cytology, and other aspects of plant classification and phylogenetics. Given at the Missouri Botanical Garden. One hour per week.

**BIOL 5089 Topics In Animal Behavior: 1 semester hour**

Prerequisites: Graduate standing. Presentation and discussion of current research articles and/or student and faculty research projects in animal behavior, including ecology, evolution, genetics, and mechanisms of behavior. May be repeated.

**BIOL 5123 Advanced Tropical Resource Ecology Field Studies: 2 semester hours**

Prerequisites: BIOL 5122 (may be taken concurrently). The field component to the lecture and seminar course. Examines the patterns of use and exploitation of resources in the tropics by humans in the context of the theories of behavioral ecology. Two weeks of intensive field research and lectures in Guyana, South America during the second and third weeks of Summer Session I (trip costs to be borne by the student). Students may not receive credit for both BIOL 3123 and BIOL 5123. Offered in odd numbered years.

**BIOL 5179 Ethical Issues in Biology: 1 semester hour**

Prerequisites: Graduate Standing. Using readings and discussions, students will explore ethical issues in Biology in both professional and social realms. Professional topics include authorship, grants accounting, and academic misconduct; social topics include ethical foundations of basic and applied science, government regulation of science, environmental and individual protection, and current issues.

**BIOL 5192 Community Ecology: 3 semester hours**

Prerequisites: Graduate standing and either BIOL 2102 and BIOL 4182 or an equivalent course. Studies of structure and organization of natural communities stressing the abundance and distribution of species, the regulation of species diversity, and the evolution of demographic parameters in populations.

**BIOL 5312 Theory Of Systematics: 3 semester hours**

Prerequisites: BIOL 1821, BIOL 1831 and at least one course beyond the introductory level dealing with animal, plant, or microbial diversity (such as BIOL 2482, BIOL 2501, BIOL 2402, BIOL 4482, BIOL 4501, BIOL 4402, BIOL 4422) or consent of instructor. Course investigates the theory of classification, phylogenetic analysis, systematic biology, and their relation to systematic practice. Will cover goals and schools of systematics, characters and homology, analysis of molecular and morphological data and underlying assumptions, species concepts, classification, naming, and the connections between evolutionary biology and systematics. The course is appropriate for upper level undergraduates & graduate students in all disciplines, animal, plant, and microbial, as an introduction to systematic methods. Three hours of lecture per week.

**BIOL 5314 Herbarium Taxonomy: 2 semester hours**

Prerequisite: BIOL 5312. An introduction to the principles and practice of herbarium taxonomy, emphasizing species description, identification, how to access and use the taxonomic literature, data basing, nomenclature, curation, and collecting and the national and international regulations governing it. Two hours of lectures per week, projects including specimen curation, writing species description, etc., to be arranged. Offered every even year.

**BIOL 5436 Applied Bioinformatics: 3 semester hours**

Prerequisites: BIOL 4712 or BIOL 4602 or consent of instructor. This course provides a survey of the various computational approaches that can be used to solve biological problems. Specific attention will be focused on biological databases and methods for using and interpreting database information, sequence alignments, functional genomics, structure prediction, high-throughput analyses, and proteomics. Three hours of lecture per week.

**BIOL 5798 Practicum in Science in Business: 1-2 semester hours**

Same As CHEM 5798. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis in Chemistry, Biochemistry & Biotechnology, or Biology. Students will integrate and apply their scientific expertise to a practical, business-related problem. The course will emphasize interdisciplinary team-work as well as both written and oral communication skills.

**BIOL 5799 Internship in Science in Business: 1-2 semester hours**

Same As CHEM 5799. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis area in Chemistry, Biochemistry & Biotechnology, or Biology. The internship will consist of period of on-the-job training at a local company. Credit hours will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the course instructor. Internship assignments will be commensurate with the education and experience of the student, with an emphasis on work at the interface between the scientific and business components of the company. A written report describing the internship project is required.

**BIOL 6102 Advanced Topics In Behavioral Ecology: 3 semester hours**

Prerequisite: BIOL 3102 (BIOL 2102 is recommended). Topics in animal behavior with an emphasis on ecological and evolutionary aspects of behavior. Topics may include the role of behavior in population regulation, habitat selection and spacing, feeding and predator-prey interactions, sexual selection, evolution of mating systems, and new approaches to animal communication. Three hours of lecture, one hour of discussion or seminar per week. Students may not receive credit for both BIOL 4102 and BIOL 6102.

**BIOL 6112 Advanced Evolution Of Animal Sociality: 3 semester hours**

Prerequisites: BIOL 2102 or BIOL 4182 recommended or consent of instructor. The evolution of sociality, including a critical examination of sociobiological theories and alternative approaches of social evolution. Survey of social organization and behavior in arthropods, with an emphasis on social insects, & vertebrates. Two hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4112 and BIOL 6112.

**BIOL 6182 Advanced Population Biology: 3 semester hours**

Prerequisites: BIOL 2012 (BIOL 3302 recommended). Introduces concepts and mathematical models of population ecology and population genetics. By integrating the ecology and genetics of population, the course goal is to understand the processes that contribute to microevolution of populations. Topics include: demography, metapopulation biology, natural selection, migration, gene flow, and genetic drift. A discussion section will focus on mathematical elements of population biology models. Three hours of discussion per week. Students may not receive credit for both BIOL 4182 and BIOL 6182.

**BIOL 6192 Applications Of Geographic Information Systems: 5 semester hours**

Prerequisites: BIOL 2102, BIOL 4122 or equivalent, and consent of instructor. Geographic Information Systems (GIS) are sophisticated computer-based systems for analysis, capture, presentation, and maintenance of geographically referenced data. This course provides a foundation in using GIS for spatial analysis. Although biological examples are primarily used, examples from a range of disciplines are employed to emphasize the use of GIS as a tool to support analysis and decision-making. Students will have hands-on use of GIS software using Windows 2000/NT based workstations during each session. An independent research project applying the spatial analysis tools learned in GIS to biological research will be required. Five hours of combined lecture and computer operations, plus 2-3 hours of open lab per week.

**BIOL 6212 Theory And Application Of Conservation Biology: 3 semester hours**

Prerequisite: BIOL 4182 or BIOL 5162 or equivalent or consent of instructor. Prerequisites may be taken concurrently. Advanced analysis of conservation theory with emphasis on conservation of populations, their genetic diversity, and the biodiversity of habitats. Applied aspects of conservation and sustainable development will be illustrated through case studies presented by conservation professionals.

**BIOL 6222 Advanced Tropical Ecology And Conservation: 3 semester hours**

Prerequisite: BIOL 2102, BIOL 4182, or BIOL 5192, or their equivalent. This course will cover research areas in tropical population, community and ecosystem ecology, with emphasis on inter-species and environment-organism interactions, population control factors, and genetic structure of populations. Topics include the current status and causes of tropical habitat destruction, ongoing attempts to manage those habitats, and development of strategies leading to sustained use of non-renewable resources. A research proposal designed to investigate a current topic in tropical ecology will be required. Students may not receive credit for BIOL 4222 and BIOL 6222. Three hours of lecture per week.

**BIOL 6250 Public Policy Of Conservation And Sustainable Development: 3 semester hours**

Prerequisite: Same as POL SCI 6452. Graduate standing in Biology or Political Science and consent of instructor. Prior course in ecology recommended. This course will introduce the student to concepts and techniques for formulating, implementing, and analyzing public policy with an emphasis on environmental concerns, conservation, and sustainable development. The course will be team taught by a political scientist and a biologist. Course materials will include case studies that demonstrate the special problems of environmental policymaking in developing and developed economies.

**BIOL 6270 Advanced Global Climate Change: 3 semester hours**

Prerequisites: Graduate Standing or permission of the instructor. We will cover the fundamental physical, meteorological, and biological circumstances of global climate change, as well as predictions of its future effects on biological diversity, including humans, and how those estimates are made. We will also cover basic environmental economics and politics of climate change at local and global levels. The course will be taught as a series of lectures and discussions led by guest experts in each of the subdisciplines covered. Students may not receive credit for both BIOL 4270 and BIOL 6270.

**BIOL 6299 Internship In Conservation Biology: 1-4 semester hours**

Prerequisite: BIOL 6250 or BIOL 6212 and consent of the director of graduate studies in biology. Internships will consist of a period of study, observation and on-the-job training at a conservation or environmental agency. Specific placements will be selected according to student's interests and career goals. Internships may vary from 2 weeks to 4 months in duration.

**BIOL 6442 Advanced Developmental Biology: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 3622. A study of the basic principles that shape the embryonic and post-embryonic development of animals with an emphasis on the underlying cellular and molecular mechanisms. Specific topics include fertilization, determination of cell fate and differentiation, cell migration, establishment of the body plan, formation of selected organs and organ systems, stem cells, and limb regeneration. Environmental influences on development and the impact of developmental biology on modern medicine are also discussed. Three hours of lecture/discussion per week. Students may not receive credit for both BIOL 4442 and BIOL 6442.

**BIOL 6502 Advanced Evolution of Cognition: 3 semester hours**

Prerequisites: BIOL 3102 and BIOL 3302, or consent of instructor. PSYCH 2211 strongly recommended. The evolutionary ecology of animal cognitive abilities. Topics include learning, memory, perception, navigation, and communication from an evolutionary perspective. The focus is on cognitive abilities as adaptations, which have evolved to solve specific environmental problems. Topics include empirical methods for assessing cognitive ability, experimental design, theoretical approaches for generating predictions, and the parsimonious interpretation of data. Two hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4502 and BIOL 6502.

**BIOL 6550 Advanced Bacterial Pathogenesis: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. Examination of the strategies bacterial pathogens use to infect animals. Topics include host immune responses to infection, bacterial virulence factors, regulation of bacterial virulence, and the cellular and molecular approaches used to study host-parasite interactions. Students may not receive credit for both BIOL 6550 and BIOL 4550. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Three hours of lecture per week.



**BIOL 6552 Advanced Evolution And Phylogeny Of Seed Plants: 5 semester hours**

Prerequisites: BIOL 3302 or BIOL 2501, or equivalent. Advanced approaches in examination of the evolution of, and relationships among, major lines of seed-bearing plants, both extinct (Bennettitales, cordaites, etc.) and extant (conifers, cycades, ginkgo, Gnetales, and flowering plants). Criteria for the assessment of morphological homology are examined, and wherever possible the evolution of morphological structures is related to their function. Includes use of cladistic methods and practical exercises in the analysis of large morphological data matrices using PAUP and MacClade. Two hours of lecture per week and one hour of laboratory per week to be arranged. Does not fulfill a laboratory requirement for biology majors. students may not receive credit for both BIOL 4552 and BIOL 6552.

**BIOL 6602 Advanced Molecular Biology: 3 semester hours**

Prerequisites: BIOL 2012 and CHEM 2612, or consent of instructor. A study of the principles of molecular biology, with emphasis on understanding the genetic regulation of DNA, RNA, and protein synthesis and function in eukaryotic cells. Three hours of lecture per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Students may not receive credit for both BIOL 6602 and BIOL 4602, or any course previously called Gene Expression in Eukaryotes or Advanced Gene Expression in Eukaryotes.

**BIOL 6612 Advanced Molecular Genetics Of Bacteria: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. A study of the molecular biology of gene replication, transfer, and expression in bacterial cells. Topics include DNA replication, transcription and translation, mutagenesis, DNA repair and recombination, gene transfer, and the regulation of genes and global expression systems. Three hours of lecture per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Student may not receive credit for both BIOL 6612 and BIOL 4612 or any course previously called Gene Expression in Prokaryotes or Advanced Gene Expression in Prokaryotes.

**BIOL 6615 Advanced Biotechnology Laboratory II: 4 semester hours**

Prerequisites: BIOL 4614 and either BIOL 4602 or BIOL 4612, or consent of instructor. An in-depth look at the theory and practice of biotechnology. Lectures and discussion will examine the underlying principles, and laboratory exercises will present hands-on experience with current techniques. One hour of lecture and six hours of laboratory per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Students may not receive credit for both BIOL 6615 and BIOL 4615 or any course previously called Techniques in Molecular Biology or Advanced Techniques in Molecular Biology.

**BIOL 6622 Advanced Cellular Basis of Disease: 3 semester hours**

Prerequisites: BIOL 3622, or consent of instructor. A study of the structural organization and processes of eukaryotic cells, focusing on how defects in cellular function lead to genetic diseases and cancer. Topics of discussion may include membrane dynamics, intracellular trafficking, signal transduction, and the cell cycle. Three hours of lecture per week. Students may not receive credit for both BIOL 6622 and BIOL 4622.

**BIOL 6632 Advanced Nucleic Acid Structure And Function: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 4712 or equivalent, or consent of instructor. A comprehensive view of the structural properties of DNA and RNA that promote molecular interactions & biological function. Topics will include the physical properties of nucleic acids, the formation and biological importance of higher order structures, RNA enzymatic activities, nucleic acid-protein interactions, and RNA metabolism. Three hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4632 and BIOL 6632.

**BIOL 6642 Advanced Plant Biology And Biotechnology: 3 semester hours**

Prerequisites: BIOL 4602 or BIOL 4612. Topics may include molecular and cellular aspects of plant growth, development, and responses to environmental stress and pathogen attack, using the experimental approaches of genetics, molecular biology, and biochemistry. Plant growth manipulation and genetic engineering, including the techniques required for DNA transfer and plant regeneration, as well as current and potential future applications, such as engineered resistance to stress, developmental engineering, and metabolic engineering, also will be covered. Student may not receive credit for both BIOL 4642 and BIOL 6642.

**BIOL 6652 Advanced Virology: 3 semester hours**

Prerequisites: BIOL 2012, BIOL 3622, and graduate standing. This first half of the course entails a comparative study of the structure, replication, and molecular biology of viruses. The second half of the course focuses on the pathogenesis, control, and evolution of animal viruses. Three hours of lecture, one hour of discussion or seminar per week. Students may not receive credit for both BIOL 4652 and BIOL 6652.

**BIOL 6699 Graduate Internship In Biotechnology: 1-4 semester hours**

Prerequisites: Graduate standing and enrollment in graduate Biotechnology Certificate Program. 6 credit hours maximum (maximum of 8 combined credit hours of BIOL 6905 and internship) Internship will consist of period of observation, experimentation and on-the-job training in biotechnology laboratory. The laboratory may be industrial or academic. Credit will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the instructor. Internship assignments will be commensurate with the education and experience of the student.

**BIOL 6889 Graduate Seminar: 2 semester hours**

Presentation and discussion of various research problems in biology. Graduate student exposure to the seminar process.

**BIOL 6905 Graduate Research In Biology: 1-10 semester hours**

Research in area selected by student in consultation with faculty members.

**BIOL 6915 Graduate Research Practicum: 1-2 semester hours**

Prerequisite: Consent of instructor. This course is designed for graduate students wishing to pursue research experience in an area outside their dissertation topic. The project can be techniques-oriented or focused on a specific research question. The credit hours will depend on the time commitment to the project as decided by the supervisory faculty member.



## Chemistry Courses

### ***CHEM 1011 Chemistry In The Environment And Every Day Living: 3 semester hours***

This course examines the role of chemistry in everyday life and in the environment, and is intended for students not pursuing scientific or engineering majors. Chemical principles are introduced to the extent necessary for understanding of issues, but this course does not provide the basis for further technical courses. Two hours of lecture per week; on alternate weeks, one hour of discussion or two hours of laboratory.

### ***CHEM 1052 Chemistry For The Health Professions: 4 semester hours***

An introduction to general, nuclear, structural organic, organic reactions and biochemistry. This course is designed primarily for students in nursing and related health professions, and should not be taken by students majoring in the physical or biological sciences. Chemistry majors may include neither CHEM 1052 or CHEM 1062 in the 120 hours required for graduation. Four hours of lecture per week.

### ***CHEM 1062 Organic & Biochem For The Health Professions: 2 semester hours***

Prerequisites: Any college Chemistry course An introduction to organic reactions and biochemistry. CHEM 1062 is offered during the second half of the semester. Four hours of lecture per week.

### ***CHEM 1081 Introductory Chemistry I-A: 3 semester hours***

Prerequisites: MATH 1030 (or a score of 26 or higher on either the Math ACT or the Math Placement Test). This course is designed for students who want to have an in depth understanding of introductory concepts in Chemistry. CHEM 1081 covers the topics taught in the first half of CHEM 1111 but at a slower pace, thus allowing students time to fully integrate the concepts and thereby build a stronger foundation for their subsequent Chemistry courses. CHEM 1081 consists of the first half of CHEM 1111 (excluding laboratory experiments), whereas CHEM 1091 covers all the laboratory experiments and second half of lecture part of CHEM 1111. Three hours of lecture or workshop per week.

### ***CHEM 1091 Introductory Chemistry IB: 3 semester hours***

Prerequisites: CHEM 1081 and MATH 1035 (MATH 1035 may be taken concurrently). CHEM 1091 is the completion of CHEM 1111 for students who have completed CHEM 1081. The laboratory portion of this course will start at the beginning of the semester. The lecture part of the course starts in mid-semester and students join an ongoing CHEM 1111 class. Students who completed CHEM 1081 must complete CHEM 1091 to be considered as having completed the equivalent of CHEM 1111. Three hours of lecture and one and one half hours of workshop during the second half of the semester, and three hours of laboratory per week during the entire semester.

### ***CHEM 1111 Introductory Chemistry I: 5 semester hours***

Prerequisite: MATH 1030 (or a score of 26 or higher on either the Math ACT or the Missouri Math Placement Test) and MATH 1035 (MATH 1035 may be taken concurrently). Presents an introduction to the fundamental laws and theories of chemistry. Laboratory experiments are designed to demonstrate some aspects of qualitative and quantitative analysis and to develop skills in laboratory procedures. Chemistry majors may not include both CHEM 1011 and CHEM 1111 in the 120 hours required for graduation. Three hours of lecture, one and one-half hours of workshop, and three hours of laboratory per week.

### ***CHEM 1121 Introductory Chemistry II: 5 semester hours***

Prerequisite: CHEM 1111 or advanced placement. Lecture and laboratory are a continuation of CHEM 1111. Three hours of lecture, one and one-half hours of workshop and three hours laboratory per week.

### ***CHEM 1134 Special Topics In Introductory Chemistry: 1-5 semester hours***

Prerequisite: Consent of instructor. A lecture and/or laboratory course to assist transfer students to complete the equivalent of CHEM 1111 and CHEM 1121. Students enrolling in this course should contact the instructor prior to the first day of class for guidelines on course requirements, to choose a lab or workshop section, and to request enrollment in the course website.

### ***CHEM 2223 Quantitative Analysis: 3 semester hours***

Prerequisites: CHEM 1121 Principles and practice of elementary quantitative chemistry. The lecture treats descriptive statistics with emphasis on small samples; various types of competing equilibria pertaining to acid-base, complexometric, and potentiometric titrations; and an introduction to spectrophotometric processes. The laboratory provides exercises in titrimetric gravimetric, and spectrophotometric techniques. Both portions of the course deal with the analytical chemistry of environmentally-significant problems. Two hours of lecture and four and one-half hours of laboratory weekly.

### ***CHEM 2612 Organic Chemistry I: 3 semester hours***

Prerequisite: CHEM 1121 (may be taken concurrently). An introduction to the structure, properties, synthesis, and reactions of aliphatic and aromatic carbon compounds. Three hours of lecture per week.

### ***CHEM 2622 Organic Chemistry II: 3 semester hours***

Prerequisite: CHEM 2612. A systematic study of organic reactions and their mechanisms; organic synthetic methods. Three hours of lecture per week.

### ***CHEM 2633 Organic Chemistry Laboratory: 2 semester hours***

Prerequisite: CHEM 2612 An introduction to laboratory techniques and procedures of synthetic organic chemistry including analysis of organic compounds. One hour of lecture and four and one-half hours of laboratory per week.

### ***CHEM 3022 Introduction To Chemical Literature: 1 semester hour***

Prerequisites: CHEM 2622 (2622 may be taken concurrently) and CHEM 3412. This course will familiarize the student with the literature of chemistry and its use. One hour of lecture per week.

### ***CHEM 3302 Physical Chemistry For The Life Sciences: 3 semester hours***

Prerequisites: CHEM 2612 and MATH 1800 or MATH 1100, and PHYSICS 1012 Principles and applications of physical chemistry appropriate to students pursuing degree programs in the life sciences. Topics will include thermodynamics, equilibria, kinetics, and spectroscopy. This course is intended for undergraduates seeking the B.S. degree in Biochemistry and Biotechnology and does not fulfill the physical chemistry required for other Chemistry B.A. and B.S. degree programs.

### ***CHEM 3312 Physical Chemistry I: 3 semester hours***

Prerequisites: CHEM 1121 and MATH 2000 (MATH 2000 may be taken concurrently), and PHYSICS 2111. Principles of physical chemistry, including thermodynamics, theory of gases, phase equilibria, kinetics, crystal structure, spectroscopy, and quantum mechanics. Three hours per week.

### ***CHEM 3322 Physical Chemistry II: 3 semester hours***

Prerequisite: CHEM 3312 and MATH 2000. Continuation of CHEM 3312. Three hours lecture per week.

### ***CHEM 3333 Physical Chemistry Laboratory I: 2 semester hours***

Prerequisites: CHEM 2223 and CHEM 3312 Experiments designed to illustrate principles introduced in CHEM 3312. One hour of lecture and four and one-half hours of laboratory per week.

**CHEM 3412 Basic Inorganic Chemistry: 2 semester hours**

Prerequisite: CHEM 1121. This course reviews the principles of atomic structure and studies covalent and ionic bonding. Topics include properties of the elements and synthesis, reactions and bonding aspects of important main group and transition metal compounds. Two hours lecture per week.

**CHEM 3643 Advanced Organic Chemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 3022 Identification of organic compounds by classical and spectroscopic methods; advanced techniques in synthesis and separation of organic compounds. One hour of lecture and four and one-half hours of laboratory per week. Not for graduate credit.

**CHEM 3905 Chemical Research: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent laboratory and library study, in conjunction with faculty member, of fundamental problems in chemistry. A written report describing the research is required.

**CHEM 4212 Instrumental Analysis: 2 semester hours**

Prerequisites: CHEM 3322 Principles and applications of modern methods of instrumental analysis for analytical chemistry measurements. Topics will be selected from the areas of electrochemistry, absorption and emission spectroscopy, chromatography, mass spectrometry, surface analysis, and nuclear magnetic resonance. Two hours of lecture per week.

**CHEM 4233 Laboratory In Instrumental Analysis: 2 semester hours**

Prerequisites: CHEM 4212, CHEM 3333 Experiments designed to illustrate the principles and practices of instrumental analysis, involving the use of modern instrumentation in analytical chemistry applications. One hour of discussion and four and one-half hours of laboratory per week.

**CHEM 4302 Survey Of Physical Chemistry With Applications To The Life Scienc: 3 semester hours**

Prerequisites: CHEM 2612 and MATH 1800 or MATH 1100, and PHYSICS 1012. Principles of physical chemistry with applications to the life sciences. Topics will include thermodynamics, equilibria, kinetics, and spectroscopy. This course will be taught simultaneously with CHEM 3302, but students in CHEM 4302 will have additional assignments or projects. No student may receive credit for both CHEM 3302 and CHEM 4302.

**CHEM 4343 Physical Chemistry Laboratory II: 2 semester hours**

Prerequisites: CHEM 3322 (may be taken concurrently) and CHEM 3333. Experiments designed to illustrate principles introduced in CHEM 2322. One hour of lecture and four and one-half hours of laboratory per week. Not for graduate credit.

**CHEM 4412 Advanced Inorganic Chemistry: 3 semester hours**

Prerequisites: CHEM 3322 (may be taken concurrently), CHEM 3412, and CHEM 2622 An introduction to the chemistry of the elements, including atomic and molecular structure, acids and bases, the chemistry of the solid state, and main group and transition metal chemistry. Three hours of lecture per week.

**CHEM 4433 Inorganic Chemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 3333, CHEM 3643, and CHEM 4412 (CHEM 3643 may be taken concurrently) The more sophisticated techniques of physical and analytical chemistry will be used to study inorganic compounds and their reactions. One hours of lecture and four and one half hours of laboratory per week. Not for graduate credit.

**CHEM 4652 Spectroscopic Identification Of Organic Compounds: 3 semester hours**

Prerequisites: CHEM 3643 An applied approach to the use of spectroscopic techniques in organic chemistry. Topics to include integrated applications of infrared and Raman spectroscopy, nuclear magnetic resonance ( $^{13}\text{C}$  and  $^1\text{H}$ , cw and pulsed) and mass spectroscopy for the purpose of elucidating the structure of organic compounds. Three hours of lecture per week.

**CHEM 4712 Biochemistry: 3 semester hours**

Same as BIOL 4712. Prerequisites: CHEM 2612 and either BIOL 1831 or CHEM 2622. Examines the chemistry and function of cell constituents, and the interaction and conversions of intracellular substances. Students may not receive credit for both BIOL 4712 and CHEM 4712.

**CHEM 4722 Advanced Biochemistry: 3 semester hours**

Prerequisite: CHEM 4712. Selected advanced topics in the chemistry of life processes. Three hours lecture per week.

**CHEM 4733 Biochemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 4712 (may be taken concurrently), and CHEM 2223. Laboratory study of biochemical processes in cellular and subcellular systems with emphasis on the isolation and purification of proteins (enzymes) and the characterization of catalytic properties. One hour of lecture and four and one-half hours of laboratory per week.

**CHEM 4772 Physical Biochemistry: 3 semester hours**

Prerequisites: CHEM 3312 or CHEM 4712/ BIOL 4712 Designed to acquaint students with concepts and methods in biophysical chemistry. Topics that will be discussed include protein and DNA structures, forces involved in protein folding and conformational stability, protein-DNA interactions, methods for characterization and separation of macromolecules, electron transfer, and biological spectroscopy. Three hours of lecture per week.

**CHEM 4797 Biochemistry and Biotechnology Seminar: 1 semester hour**

Same as BIOL 4797. Prerequisites: Senior standing in the Biochemistry and Biotechnology program. This course will focus on selected publications related to biochemistry and biotechnology from both refereed journals and news sources. Students are expected to participate in discussions and to prepare oral and written presentations. Completion of the Major Field Achievement Test in Biochemistry & Biotechnology is a course requirement. May not be taken for graduate credit.

**CHEM 4814 Special Topics In Chemistry: 1-10 semester hours**

A reading and seminar course in selected advanced topics.

**CHEM 4897 Seminar: 1 semester hour**

Prerequisites: CHEM 3022 and senior standing Presentation of papers by students, faculty, and invited speakers. Chemistry majors must enroll during the semester in which they intend to graduate. Completion of a comprehensive examination during one of the semesters is a course requirement One hour of lecture and one hour of discussion per week.

**CHEM 5394 Special Topics In Physical Chemistry: 1-10 semester hours**

Prerequisite: Consent of instructor. Selected topics in physical chemistry; may be taken more than once for credit.

**CHEM 5396 Directed Readings in Physical Chemistry: 1-3 semester hours**

Prerequisites: Consent of Physical Chemistry Faculty. A series of readings of monographs, review papers, and/or research publications for a particular student directed at providing that student with appropriate background preparation for experimental or theoretical Ph.D.-level research in an area of physical chemistry. The particular readings will be selected by the physical chemistry staff. Potential topics include but are not limited to advances in Electrochemistry, Surface Chemistry, Thermodynamics, Molecular Spectroscopy, Quantitative Absorption Spectroscopy using new Methodologies, Applications of Group Theory in Spectroscopy, and Computational Chemistry. Assessment may be in various forms including by assignments and seminars. Students may take this course more than once for credit through the particular topic must be different in each case.

**CHEM 5422 Coordination Chemistry: 3 semester hours**

Prerequisite: CHEM 4412 or an equivalent course. Chemistry of the coordination compounds of the transition metals including such topics as kinetics and mechanisms of reaction, stereochemistry, ligand field theory, stability and electronic spectra. Three hours of lecture per week.

**CHEM 5462 Organometallic Chemistry Of The Transition Elements: 3 semester hours**

Prerequisites: CHEM 4412 or an equivalent course. A study of transition metal compounds containing metal-carbon bonds and related metal-element bonds, including their synthesis, structure and bonding, and reactions. Applications in organic synthesis and catalysis will also be presented. Three hours of lecture per week.

**CHEM 5494 Special Topics In Inorganic Chemistry: 1-3 semester hours**

Prerequisite: Consent of instructor. Selected topics in organic chemistry; may be taken more than once for credit.

**CHEM 5602 Advanced Organic Chemistry I - Physical Organic: 3 semester hours**

Prerequisites: CHEM 2622 and CHEM 3322 Mechanism and theory of organic chemistry. Topics to include kinetics, transition state theory, reaction intermediates, and stereochemical analysis. Three hours of lecture per week.

**CHEM 5612 Advanced Organic Chemistry II - Reactions And Synthesis: 3 semester hours**

Prerequisite: CHEM 2622 This course will examine a variety of organic transformations typically utilized in organic synthesis. Topics will include carbon-carbon bond formation, pericyclic reactions, oxidation, reduction, and functional group interconversions. Mechanism and stereochemistry will be emphasized. Three hours of lecture per week.

**CHEM 5694 Special Topics In Organic Chemistry: 3 semester hours**

Prerequisite: Consent of Instructor Advanced topics of special current interest. May be taken more than once for credit. Topics that may be offered include: Methods in Organic Synthesis, Organometallics in Organic Synthesis, Topics in Bioorganic Chemistry, Organic thermochemistry, Natural Products Chemistry, Stereochemistry, Photochemistry, Heterocyclic Chemistry, Medicinal Chemistry.

**CHEM 5774 Bioinformatics: 3 semester hours**

Prerequisites: CHEM 4712 or equivalent. This course introduces modern approaches in bioinformatics and computational biochemistry. Topics to be covered include a survey of biological databases, predictions from protein and DNA sequences, sequence alignment and sequence database searches, building phylogenetic trees, three-dimensional protein structure prediction, and molecular modeling and simulation.

**CHEM 5794 Special Topics In Biochemistry: 3 semester hours**

Prerequisites: Consent of instructor Selected topics in biochemistry. May be taken more than once for credit.

**CHEM 5798 Practicum in Science in Business: 1-2 semester hours**

Same As BIOL 5798. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis in Chemistry, Biochemistry & Biotechnology, or Biology. Students will integrate and apply their scientific expertise to a practical, business-related problem. The course will emphasize interdisciplinary team-work as well as both written and oral communication skills.

**CHEM 5799 Internship in Science in Business: 1-2 semester hours**

Same As BIOL 5799. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis area in Chemistry, Biochemistry & Biotechnology, or Biology. The internship will consist of period of on-the-job training at a local company. Credit hours will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the course instructor. Internship assignments will be commensurate with the education and experience of the student, with an emphasis on work at the interface between the scientific and business components of the company. A written report describing the internship project is required.

**CHEM 6196 Advanced Reading In Chemistry: 1 semester hour**

Prerequisite: Admission to the Ph.D. program. Reading and examinations in the sub-disciplines of chemistry. Enrollment must begin after completion of any course deficiencies.

**CHEM 6487 Problem Seminar In Inorganic Chemistry: 1 semester hour**

Prerequisite: Consent of the inorganic chemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. Ph.D. students may take more than once for credit. Up to three credits may be applied to the M.S. degree program.

**CHEM 6687 Problem Seminar In Organic Chemistry: 1-3 semester hours**

Prerequisite: Consent of the organic chemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. PH.D. Students may take more than once for credit. Up to three credits may be applied to the M.S. degree programs.

**CHEM 6787 Problem Seminar In Biochemistry: 1 semester hour**

Prerequisite: Consent of the biochemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. Ph.D. students may take more than once for credit. Up to three credits may be applied to the M.S. degree program.

**CHEM 6812 Introduction To Graduate Study In Chemistry: 1 semester hour**

Prerequisite: Consent of Graduate Advisor. Topics to be covered include: techniques of teaching of chemistry in colleges and universities, methods of instruction and evaluation; role and responsibilities of the Graduate Teaching Assistant in laboratory instruction; safety in the undergraduate laboratory, safety practices, emergency procedures; selection of a research project and thesis advisor.

**CHEM 6822 Introduction To Graduate Research In Chemistry: 1 semester hour**

Prerequisite: Consent of instructor. Topics to include: safety in the research laboratory, safety practices, emergency procedures, hazardous materials, waste disposal, radiation safety; research ethics, chemistry information retrieval, computer assisted information retrieval, types of databases, searching bibliographic data bases.



**CHEM 6832 Strategies for Independent Research Proposal****Development: 1 semester hour**

Prerequisites: CHEM 6822 and Consent of Graduate Advisor. Topics include: strategies for identification of research topics in chemistry and biochemistry, techniques for database literature search, critical analysis of existing research knowledge, introduction to standard grant proposal formats, technical aspects in preparation of a research plan and accompanying sections, use of bibliographical software, and overview and practice of the peer review process.

**CHEM 6897 Chemistry Colloquium: 1 semester hour**

Presentation of papers by students, faculty and invited speakers. One hour per week.

**CHEM 6905 Graduate Research In Chemistry: 1-10 semester hours**

## Biology

### General Information

#### Degrees and Areas of Concentration

The Department of Biology provides academic programs leading to the B.A. or B.S. in Biology. In cooperation with the College of Education, the department offers the B.S. in Secondary Education with a major in biology and the B.A. or B.S. in Biology with teacher certification. It also offers graduate work leading to the Master of Science and the Doctor of Philosophy degrees in Biology. Biology faculty members are engaged in teaching and research in areas ranging from cell and molecular biology to population and community studies.

#### Minor in Biology

Students majoring in another discipline may earn a minor in biology by completing a prescribed course of study. Unique programs can be developed to coordinate with special career objectives.

#### Departmental Honors

The Department of Biology offers an Honors Program to train students in conducting research in areas of biological research currently under study in the Department.

#### Graduate Studies

The Department of Biology offers graduate work leading to the M.S. and Ph.D. degrees in biology. Graduate students will normally work toward an M.S. or Ph.D. degree in two broad areas of biology: a) cellular, molecular, and developmental biology, or b) ecology, evolution, and systematics. Students in the M.S. and Ph.D. programs also have the opportunity to do their graduate work in collaboration with scientists at the Missouri Botanical Garden, the Donald Danforth Plant Science Center, or the Saint Louis Zoo through cooperative graduate programs.

#### Facilities

Department facilities include research and teaching laboratories, environmental chambers, greenhouses, and a large array of supporting modern research instrumentation. Graduate research can be pursued using facilities of the Missouri Botanical Garden, the Donald Danforth Plant Science Center, or the Saint Louis Zoo. Several sites within an hour of campus are suitable for regional field studies, including state parks, wildlife conservation areas, the Shaw Nature Reserve, and Washington University's Tyson Research Center. UMSL is a member of the St. Louis University Research Station Consortium that operates Lay and Reis Field Stations in Missouri and is also a member of the Organization for

Tropical Studies, which operates three field stations in Costa Rica. CEIBA Biological Centre in Guyana has hosted several UMSL courses and student researchers. Student researchers work independently at research stations throughout the tropics.

### Cooperative Programs

The department participates in a cooperative consortium program in biology with Washington University, Saint Louis University, Southern Illinois University-Edwardsville, and the Missouri Botanical Garden.

### Program Objectives and Career Prospects

The degree program at the baccalaureate level is designed to prepare the student for further professional training in areas such as medicine, dentistry, veterinary medicine, optometry, plant science, conservation, and related areas or for further graduate training in research in biology.

The Undergraduate Certificates in Biotechnology and Conservation Biology are for majors interested in careers in biotechnology and associated areas and in conservation, respectively.

The Master of Science program is an extension of the undergraduate program and provides the research-oriented training and education necessary for students to enter doctoral programs in biology and develops professional biologists qualified to function in responsible technical positions. It also trains students to become effective secondary school and junior college biology teachers.

The Graduate Certificates in Biotechnology and in Tropical Biology and Conservation provides professional training in the areas of biotechnology and conservation.

The Ph.D. program prepares students to be research biologists in academics or other professional fields in ecology, evolution and systematic and cellular and molecular biology. Employment opportunities are available in college or university research and teaching, in government and public institutions such as museums, botanical gardens and conservation organizations, and in industry.

### Undergraduate Studies

#### General Education Requirements

Students must satisfy the university and college general education requirements (p. ). Some Biology courses may be used to meet the science and mathematics requirement of the university.

Candidates for the B.A. degree must fulfill the foreign language requirement of the College of Arts and Sciences. There is no foreign language requirement for the B.S. degree.

#### Satisfactory/Unsatisfactory Option

Up to 18 credit hours may be taken on a satisfactory/ unsatisfactory (s/u) basis. Excluded from this option are required courses in biology, chemistry, physics, and mathematics.

#### Non-major biology courses

The following 1000 level biology courses do not count toward the biology credit hours required for a major in biology. Moreover, if biology majors take these courses, they are treated as biology courses when computing the 70 credit hours outside of biology needed to be included in the 120 total credit hours required for graduation.



BIOL 1012 (p. 86)	General Biology	3
BIOL 1013 (p. 86)	General Biology Laboratory	2
BIOL 1102 (p. 86)	Human Biology	3
BIOL 1131 (p. 86)	Human Physiology And Anatomy I	4
BIOL 1141 (p. 86)	Human Physiology And Anatomy II	4
BIOL 1162 (p. 86)	General Microbiology	3
BIOL 1202 (p. 86)	Environmental Biology	3

## Degree Requirements

### Bachelor of Arts in Biology

The B.A. degree provides maximum flexibility for biology majors to pursue an undergraduate liberal arts course of study that can lead to professional careers in medicine, allied health, public and environmental health, law, and graduate studies in the life sciences. Candidates must have a cumulative grade point average of 2.0 or better in biology courses. Effective fall semester 2009, candidates must also earn a minimum grade of C- in all core courses.

All B.A. degree majors must take at least 39 credit hours but not more than 50 hours in appropriate biology course work. Transfer student must satisfactorily complete at least 18 credit hours of UMSL biology course work (including one laboratory) at the 2000 level or above before receiving a B.A. degree from the College of Arts and Sciences with a major in biology.

### Lecture and Seminar Course Requirements

#### Core Courses

The following biology courses or their equivalents are required:

BIOL 1821	Introductory Biology: Organisms And The Environment	5
BIOL 1831	Introductory Biology: From Molecules To Organisms	5
BIOL 2012	Genetics	3
BIOL 3302	Introduction To Evolution	3
BIOL 3622	Cell Biology	3
Select one of the following diversity courses:		3-5
BIOL 2102	General Ecology	
BIOL 2402	Vertebrate Anatomy, Evolution and Ecology	
BIOL 2482	Microbiology	
BIOL 2501	Biology Of Plants	
BIOL 4402	Ornithology	
BIOL 4422	Entomology	
BIOL 4501	Flowering Plant Families: Phylogeny And Diversification	

Select one of the following:

SEC ED 4985	Curriculum And Methods Of Teaching Life & BIOL 4986 Sciences and Laboratory In Teaching Life Sciences	
BIOL 4889	Senior Seminar	

### Elective Courses

Three additional biology lecture courses, at the 2000 level or higher are required. They may be selected from any of the lecture or lecture-laboratory courses offered. Selection of these courses should reflect the career interest of the student. Biology courses taken to fulfill basic skill requirements (e.g., statistics requirement or biochemistry option) can be used to satisfy this requirement).

At least two biology lecture courses taken as part of the core or as electives must be at the 4000 level or higher. No more than one of these higher level courses can be used to fulfill other requirements (e.g., diversity or statistics requirements, or biochemistry option).

### Laboratory Course Requirements

Three biology laboratory courses at the 2000 level or higher are required. They may be taken from any of the lecture-laboratory or laboratory courses offered. Two credit hours of BIOL 3699, BIOL 4299, BIOL 4905, or BIOL 4915 (no combination of these courses allowed) can be used to fulfill one laboratory requirement. Students may take CHEM 4733 to satisfy one of these laboratory course requirements, but students may not use both BIOL 4713 and to CHEM 4733 fulfill this requirement.

### Basic Skills Requirement

A well-rounded biologist needs certain skills outside the biology subject matter. The basic skills requirement is designed to provide the student with a background in communication skills and knowledge in associated science areas.

Communication Skills. Courses in foreign languages and in writing are required for development of the basic communication skills needed to transmit scientific information. The following satisfy this requirement:

#### Foreign Language

The foreign language requirement of the College of Arts & Sciences fulfills the departmental requirement.

#### Writing

ENGL 3160	Writing In The Sciences (strongly preferred)	3
or ENGL 3100	Junior-Level Writing	

Total Hours	6
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Associated Science Area. The following courses or their equivalents must be successfully completed in science areas related to biology:

PHYSICS 1011	Basic Physics I	4
PHYSICS 1012	Basic Physics II	4
CHEM 1111	Introductory Chemistry I	5
CHEM 1121	Introductory Chemistry II	5
CHEM 2612	Organic Chemistry I	3

Select one of the following: 2-3

CHEM 2223	Quantitative Analysis	
CHEM 2622	Organic Chemistry II	
CHEM 2633	Organic Chemistry Laboratory	
BIOL/CHEM 4712	Biochemistry	
MATH 1310	Elementary Statistical Methods	3

MATH 1035	Trigonometry	2
MATH 1100	Basic Calculus	3
or MATH 1800	Analytic Geometry And Calculus I	
Select one of the following:		3-4
BIOL 4122	Biometry	
MATH 1310	Elementary Statistical Methods	
MATH 1320	Applied Statistics I	
PSYCH 2201	Psychological Statistics	
Total Hours		34-36

## Bachelor of Science in Biology

The B.S. degree in biology is designed to prepare students for basic technical positions and graduate studies in the life sciences. Candidates for the degree have the same core courses and general education requirements as those seeking the Bachelor of Arts degree, as well as additional requirements in depth of study, laboratory experience, communication skills, and background in associated science areas. Candidates must have a cumulative grade point average of 2.0 or better in biology courses. Effective Fall semester 2009, candidates must earn a minimum grade of C- in all core courses.

There is no foreign language requirement for the B.S. degree. However, students should realize that the literature for biological studies is in many different languages and the ability to extract information from this literature is an important skill.

To fulfill the requirements for the B.S. degree a minimum of 44 hours but not more than 50 hours must be completed in appropriate biology course work. Transfer students must satisfactorily complete at least 22 credit hours of UMSL biology course work (including two laboratory courses) at the 2000 level or higher before receiving a B.S. degree in biology.

### Lecture and Seminar Course Requirements

#### Core Courses

The following biology courses or their equivalents are required:

BIOL 1821 (p. 86)	Introductory Biology: Organisms And The Environment	5
BIOL 1831 (p. 86)	Introductory Biology: From Molecules To Organisms	5
BIOL 2012 (p. 86)	Genetics	3
BIOL 3302 (p. 86)	Introduction To Evolution	3
BIOL 3622 (p. 86)	Cell Biology	3
Select one of the following:		2-6
BIOL 4889 (p. 86)	Senior Seminar	
SEC ED 4985 (p. 86)	Curriculum And Methods Of Teaching Life Sciences	
& BIOL 4986 (p. 86)	and Laboratory In Teaching Life Sciences (for those seeking teacher certification)	
Select one of the following diversity courses:		3-5
BIOL 2102 (p. 86)	General Ecology	
BIOL 2402 (p. 86)	Vertebrate Anatomy, Evolution and Ecology	

BIOL 2482 (p. 86)	Microbiology	
BIOL 2501 (p. 86)	Biology Of Plants	
BIOL 4402 (p. 86)	Ornithology	
BIOL 4422 (p. 86)	Entomology	
BIOL 4501 (p. 86)	Flowering Plant Families: Phylogeny And Diversification	
Total Hours		24-30

#### Elective Courses

Four additional biology lecture courses at the 2000 level or higher are required. They may be selected from any of the lecture or lecture-laboratory courses offered. Selection of these courses should reflect the career interest of the student and may be selected from optional academic tracks (see below). Biology courses taken to fulfill basic skill requirements (e.g., statistics requirement or biochemistry option can be used to satisfy this requirement).

At least two biology lecture courses taken as electives must be at the 4000 level or higher. No more than one of these higher level courses can be used to fulfill other requirements (e.g., statistics requirement or biochemistry option).

### Laboratory Course Requirements

Four biology laboratory courses at the 2000 level or higher are required. They may be selected from any of the lecture-laboratory or laboratory courses offered. Two credit hours of BIOL 3699 (p. 86), BIOL 4905 (p. 86), or BIOL 4915 (p. 86) (no combination of these courses allowed) can be used to fulfill one laboratory requirement. Students may take CHEM 4733 (p. 86) to satisfy one of these laboratory course requirements, but students may not use both BIOL 4713 (p. 86) and CHEM 4733 (p. 86) to fulfill this requirement.

### Basic Skills Requirement

A well-rounded biologist needs certain skills outside the biology subject matter. The basic skills requirement is designed to provide the student with a background in communication skills and knowledge in associated science areas.

#### Communication Skills

Courses in both formal speaking and writing are required for development of the basic communication skills needed to transmit scientific information.

#### Formal Speaking

COMM 1040 (p. 86)	Introduction To Public Speaking	3
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#### Writing

ENGL 3160 (p. 86)	Writing In The Sciences (strongly preferred)	3
or ENGL 3110 (p. 86)	Junior Level Writing For International Students	

Total Hours		6
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#### Associated Science Area

The following courses or their equivalents must be successfully completed:

PHYSICS 1011 (p. 86)	Basic Physics 1	4
PHYSICS 1012 (p. 86)	Basic Physics II	4
CHEM 1111 (p. 86)	Introductory Chemistry I	5
CHEM 1121 (p. 86)	Introductory Chemistry II	5
CHEM 2612 (p. 86)	Organic Chemistry I	3
CHEM 2622 (p. 86)	Organic Chemistry II	3
CHEM 2223 (p. 86)	Quantitative Analysis	3
MATH 1030 (p. 86)	College Algebra	3
MATH 1035 (p. 86)	Trigonometry	2
MATH 1100 (p. 86)	Basic Calculus	3
or MATH 1800 (p. 86)	Analytic Geometry And Calculus I	
Select one of the following:		3-4
BIOL 4122 (p. 86)	Biometry	
MATH 1310 (p. 86)	Elementary Statistical Methods	
MATH 1320 (p. 86)	Applied Statistics I	
PSYCH 2201 (p. 86)	Psychological Statistics	
PHIL 2256 (p. 86)	Bioethics	3
or PHIL 3380 (p. 86)	Philosophy Of Science	
Total Hours		41-42

## Research Opportunity

Students in the B.S. Biology degree program who are interested in gaining research experience are encouraged to take a minimum 2 credit hours of undergraduate research, BIOL 4905. The privilege of doing undergraduate research provides students with a first-hand opportunity to experience the research process under the supervision of a faculty member or off-campus scientist. The project normally includes a library search of pertinent literature, laboratory or field experience, and a summary paper and a presentation, all based on an average 8 hr. per week per credit hour for a 15 week semester.

## Departmental Honors Thesis

The Department of Biology offers the more motivated and highly achieving students the opportunity to present primary research in the form of a written Honors Thesis. The first step in conducting an undergraduate thesis is to identify a faculty research mentor; the mentor, along with two UMSL faculty members, will be readers of the thesis. It is highly recommended that students arrange to work full time on their honors thesis during the summer between the junior and senior years. Some funds are available from university, the Harris World Ecology Center, and

departmental fellowships, but in more cases support will come from the sponsoring lab.

The thesis will be completed and presented orally in an advertised public forum by the first of the month in which graduation is to occur. The readers of the thesis will decide on the appropriate level of honors, and will report their recommendation to the Dean of Arts and Sciences, so that the student is recognized at graduation as having graduated with Honors in Biology (or High Honors in Biology). In addition to fulfilling the coursework required for a B.S. or B.A. in Biology and the Honors Thesis itself, students must:

1. carry at least a 3.3 GPA,
2. complete a minimum 2 credit hours of BIOL 4905 (Research).

## Academic Tracks within the Major of Biology

Biology majors may choose to focus their elective hours in a particular sub-discipline of biology, or academic track. These tracks are groups of departmental courses that fit within sub-disciplines of biology and are recommendations for students wanting to pursue careers in specific sub-disciplines. Academic tracks are NOT majors and are only intended to serve as guides for courses within a particular area of biology and are represented by current faculty expertise. Selecting an academic track does not prevent a student from taking courses in another track. Students should not expect to take all recommended courses for each academic track. Students may choose not to select an academic track. Currently, the Biology Department offers three academic tracks: Cell and Molecular Biology; Ecology, Evolution and Conservation Biology; and Pre-professional/Health Sciences.

### Cell and Molecular Biology Track

BIOL 2482	Microbiology	3
BIOL 2483	Microbiology Laboratory	2
BIOL 4442	Developmental Biology	3
BIOL 4550	Bacterial Pathogenesis	3
BIOL 4602	Molecular Biology	3
BIOL 4612	Molecular Genetics Of Bacteria	3
BIOL 4614	Biotechnology Laboratory I	4
BIOL 4615	Biotechnology Laboratory II	4
BIOL 4622	Cellular Basis of Disease	3
BIOL 4632	Nucleic Acid Structure And Function	3
BIOL 4642	Plant Molecular Biology and Genetic Engineering	3
BIOL 4652	Virology	3
BIOL 4712	Biochemistry	3
BIOL 4713	Techniques In Biochemistry	2
BIOL 4842	Immunobiology	3

### Ecology, Evolution and Conservation Biology Track

BIOL 2102	General Ecology	3
BIOL 2103	General Ecology Laboratory	2
BIOL 2402	Vertebrate Anatomy, Evolution and Ecology	3
BIOL 2403	Vertebrate Anatomy, Evolution and Ecology Laboratory	2
BIOL 2482	Microbiology	3
BIOL 2483	Microbiology Laboratory	2
BIOL 2501	Biology Of Plants	5
BIOL 3102	Animal Behavior	3
BIOL 3103	Animal Behavior Laboratory	2

BIOL 3123	Tropical Resource Ecology Field Studies	2	PSYCH 1003 (p. 86)	General Psychology	3
BIOL 3202	Conservation Biology	3	TCH ED 2209 (p. 86)	Foundations of Teaching in American Schools	3
BIOL 3203	Conservation Biology Laboratory	2	ENGL 3160 (p. 86)	Writing In The Sciences	3
BIOL 3802	Vertebrate Physiology	3	Select one of the following:		3
BIOL 3803	Vertebrate Physiology Lab	2	HIST 1001 (p. 86)	American Civilization To 1865	
BIOL 4102	Behavioral Ecology	3	HIST 1002 (p. 86)	American Civilization 1865 To Present	
BIOL 4112	Evolution Of Animal Sociality	3	HIST 1003 (p. 86)	African-American History	
BIOL 4122	Biometry	3	POL SCI 1100 (p. 86)	Introduction To American Politics	3
BIOL 4182	Population Biology	3	PHIL 3380 (p. 86)	Philosophy Of Science	3
BIOL 4192	Applications of Geographic Information Systems	5	COMM 1040 (p. 86)	Introduction To Public Speaking	3
BIOL 4222	Tropical Ecology And Conservation	3	TH DAN 1210 (p. 86)	Fundamentals Of Acting	3
BIOL 4245	Field Biology	3	GEOL 1001 (p. 86)	General Geology	4
BIOL 4299	Practicum In Conservation	2	ATM SCI 1001 (p. 86)	Elementary Meteorology	4
BIOL 4402	Ornithology	3	ED PSY 3312 (p. 86)	Psychology of Learning, Instruction, and Assessment	3
BIOL 4403	Ornithology Laboratory	2	TCH ED 3310 (p. 86)	Introduction To Instructional Methods	3
BIOL 4422	Entomology	3	TCH ED 4391 (p. 86)	Literacy for Adolescent Learners in Content Areas	3
BIOL 4423	Entomology Laboratory	2	<b>Content Areas</b>		
BIOL 4501	Flowering Plant Families: Phylogeny And Diversification	5	SEC ED 4985 (p. 86)	Curriculum And Methods Of Teaching Life Sciences	4
<b>Pre-professional/Health Sciences Track</b>			BIOL 4986 (p. 86)	Laboratory In Teaching Life Sciences	2
BIOL 2402	Vertebrate Anatomy, Evolution and Ecology	3	SEC ED 4990 (p. 86)	Practicum II: Site Based Experience	12
BIOL 2403	Vertebrate Anatomy, Evolution and Ecology Laboratory	2	SEC ED 4999 (p. 86)	Biology Science Teaching Seminar	3
BIOL 2482	Microbiology	3	Total Hours		62
BIOL 2483	Microbiology Laboratory	2	Because specific biology courses are required for teaching endorsement, students are advised to contact the Department of Biology AND the College of Education for special advising regarding teacher certification.		
BIOL 3802	Vertebrate Physiology	3	<b>Minor in Biology</b>		
BIOL 3803	Vertebrate Physiology Lab	2	Students may minor in biology by completing a minimum of 19 credit hours in biology, of which at least 9 hours of the biology course credits must be taken in residence at UMSL.		
BIOL 4442	Developmental Biology	3	Requirements are:		
BIOL 4550	Bacterial Pathogenesis	3	BIOL 1821 (p. 86)	Introductory Biology: Organisms And The Environment	5
BIOL 4602	Molecular Biology	3	BIOL 1831 (p. 86)	Introductory Biology: From Molecules To Organisms	5
BIOL 4622	Cellular Basis of Disease	3			
BIOL 4652	Virology	3			
BIOL 4712	Biochemistry	3			
BIOL 4822	Introduction To Neuroscience	3			
BIOL 4842	Immunobiology	3			

## Bachelor of Science in Education with Emphasis in Biology

The B.S. Ed. is a professional degree designed for individuals who wish to pursue a teaching career in biology in the secondary schools. The biology requirements parallel those for the B.A. degree with the exception that SEC ED 4985 (p. 86), Curriculum and Methods of Teaching Life Sciences, and BIOL 4986 (p. 86), Laboratory in Teaching Life Sciences, are substituted for BIOL 4889 (p. 86), Senior Seminar. Students must also fulfill the requirements for the B.S. Ed. degree as prescribed by the College of Education.

## Bachelor of Arts in Biology with Teacher Certification

Biology majors interested in teaching biology in secondary schools may obtain teacher certification in cooperation with the College of Education by fulfilling the B.A. or B.S. with certain prescribed courses in biology, with the exception of BIOL 4889 (p. 86), Senior Seminar, and in addition, completing the following courses:



BIOL 2012 (p. 86)	Genetics	3
Two additional courses totaling no less than 6 credit hours. At least one course should be at the 3000 level or above.		6
Total Hours		19

All students must plan an appropriate course of study in consultation with an advisor, and the program must be given prior approval by the Chairperson of the Department of Biology. Under certain circumstances, a student may deviate from the prescribed course of study and substitute a group of courses that exhibit a coherent area of specialization to coordinate with a career objective.

Candidates must have a cumulative grade point average of 2.0 or better in the minor, courses may be taken on a satisfactory/ unsatisfactory (s/u) basis.

## Minor in Environmental Studies

This is an interdisciplinary program that integrates the natural and physical sciences with the social sciences and humanities to study current environmental problems resulting from human population growth, global climate change, overuse of natural resources, pollution and biodiversity loss. A minimum 18 hours are required, 9 of which must be in the natural and physical sciences, including the listed Honors College courses, and 9 must be from the social sciences and humanities. Both BIOL 1202 (p. 86) (Environmental Biology) and POL SCI 3480 (p. 86) Environmental Politics must be completed as part of the total 18 hours. A total of 12 hours must be taken at or above the 2000 level, and one course at or above the 3000 level. At least 9 hours must be taken while in residence at UMSL. A minimum GPA of 2.0 is required.

ANTHRO 1005 (p. 86)	Introduction To Biological Anthropology	4
ANTHRO 3270 (p. 86)	Human Ecology, Cultural Collapse, and Sustainable Developments	3
BIOL 1202 (p. 86)	Environmental Biology	3
BIOL 1821 (p. 86)	Introductory Biology: Organisms And The Environment	5
BIOL 2102 (p. 86)	General Ecology	3
BIOL 2103 (p. 86)	General Ecology Laboratory	2
BIOL 2501 (p. 86)	Biology Of Plants	5
BIOL 3202 (p. 86)	Conservation Biology	3
BIOL 3203 (p. 86)	Conservation Biology Laboratory	2
BIOL 3302 (p. 86)	Introduction To Evolution	3
BIOL 4102 (p. 86)	Behavioral Ecology	3
BIOL 4192 (p. 86)	Applications of Geographic Information Systems	5
BIOL 4222 (p. 86)	Tropical Ecology And Conservation	3
BIOL 4245 (p. 86)	Field Biology	3

BIOL 4270 (p. 86)	Global Climate Change	3
BIOL 4402 (p. 86)	Ornithology	3
BIOL 4422 (p. 86)	Entomology	3
BIOL 4501 (p. 86)	Flowering Plant Families: Phylogeny And Diversification	5
ECON 4160 (p. 86)	Geospatial Analysis In The Social Sciences	3
ECON 4170 (p. 86)	Fundamentals Of Cost-Benefit Analysis	3
ECON 4550 (p. 86)	Natural Resource Economics	3
GEOL 1002 (p. 86)	Historical Geology	4
HONORS 2050 (p. 86)	Inquiries In The Natural Sciences	1-3
HONORS 2051 (p. 86)	Inquiries in the Sciences: Laboratory or Field Work	1
INTL BUS 4281 (p. 86)	Entrepreneurship in the Global Environment	3
PHIL 2255 (p. 86)	Environmental Ethics	3
POL SCI 3480 (p. 86)	Environmental Politics	3
POL SCI 3595 (p. 86)	Studies In Comparative Politics	3
POL SCI 3850 (p. 86)	International Organizations And Global Problem-Solving	3
POL SCI 3900 (p. 86)	Special Readings	1-10
POL SCI 4460 (p. 86)	Urban Planning And Politics	3

## Undergraduate Certificate in Biochemistry

The university offers a certificate program for science majors who are interested in careers in biochemistry. The Biochemistry Certificate is an interdisciplinary specialization that may be earned within either a biology or chemistry major. To earn the certificate, biology majors must enroll in the Biochemistry Certificate Program upon the completion of 60 credit hours, fulfill all the science (biology, chemistry, math, and physics) course requirements for the B.S. degree in biology, and successfully complete the following courses:

CHEM 2622	Organic Chemistry II	3
BIOL/CHEM 4712	Biochemistry	3
CHEM 2223	Quantitative Analysis	3
CHEM 2633	Organic Chemistry Laboratory	2
BIOL 4713	Techniques In Biochemistry	2
CHEM 4722	Advanced Biochemistry	3
Select three of the following:		8-10
BIOL 2482	Microbiology	
BIOL 2483	Microbiology Laboratory	
BIOL 4442	Developmental Biology	
BIOL 4602	Molecular Biology	

BIOL 4612	Molecular Genetics Of Bacteria
BIOL 4614	Biotechnology Laboratory I
BIOL 4622	Cellular Basis of Disease
BIOL 4632	Nucleic Acid Structure And Function
BIOL 4842	Immunobiology

Total Hours 24-26

## Undergraduate Certificate in Biotechnology

The university offers an undergraduate certificate program for biology majors who are interested in careers in biotechnology including biochemistry, microbiology, molecular biology, cell biology, and developmental biology. To earn the certificate, biology majors must enroll in the Biotechnology Certificate Program upon the completion of 60 credit hours, fulfill all the science (biology, chemistry math, and physics) course requirements for the B.S. degree in biology, and successfully complete the following courses:

BIOL 2013	Genetics Laboratory	2
BIOL 2482	Microbiology	3
BIOL 2483	Microbiology Laboratory	2
CHEM 2622	Organic Chemistry II	3
BIOL 4614	Biotechnology Laboratory I	4
BIOL/CHEM 4712	Biochemistry	3
BIOL 4602	Molecular Biology	3
or BIOL 4612	Molecular Genetics Of Bacteria	
BIOL 4713	Techniques In Biochemistry	2
or CHEM 4733	Biochemistry Laboratory	
Select one of the following:		3-4
BIOL 4615	Biotechnology Laboratory II	
BIOL 4622	Cellular Basis of Disease	
BIOL 4632	Nucleic Acid Structure And Function	
BIOL 4652	Virology	
BIOL 4842	Immunobiology	
CHEM 4722	Advanced Biochemistry	

Total Hours 25-26

## Undergraduate Certificate in Conservation Biology

The Certificate in Conservation Biology is a multidisciplinary program of study integrating theoretical and applied topics associated with conservation biology. The certificate is intended for undergraduate students with majors in biology or in any other field who wish to develop a specialization in conservation. The certificate is offered by the Department of Biology in cooperation with the departments of Anthropology, Economics, History, Political Science, Social Work, and Sociology. Building on a core curriculum, students can elect courses from these departments to complete their requirements. Regularly enrolled undergraduates at UMSL or individuals with baccalaureate degrees who wish to receive a Certificate in Conservation Biology are eligible to participate in the conservation certificate program. To participate, students must apply to the certificate program. Application forms are available from the Biology Department. Guidelines for admission to the certificate program are also available. Individuals with baccalaureate degrees who are interested in this certificate must apply to the university

as unclassified undergraduates. The certificate requires completion of 21 credit hours, outlined below. Students should consult the Bulletin with regard to prerequisites for any of the courses listed here.

### Core Courses

<b>Biology</b>		
BIOL 2102 (p. 86)	General Ecology	3
BIOL 3202 (p. 86)	Conservation Biology	3
BIOL 3203 (p. 86)	Conservation Biology Laboratory	2
BIOL 4299 (p. 86)	Practicum In Conservation	2

### Electives

The remaining 11 credits must be selected from courses listed below. 11  
Five credits must be taken from within biology and 6 credits outside biology, from at least two departments.

#### Anthropology

ANTHRO 2120	Native Peoples Of North America (p. 86)
ANTHRO 2131	Archaeology Of Missouri (p. 86)
ANTHRO 2132	Archaeology Of North America (p. 86)

#### Biology

BIOL 3123 (p. 86)	Tropical Resource Ecology Field Studies
BIOL 4102 (p. 86)	Behavioral Ecology
BIOL 4112 (p. 86)	Evolution Of Animal Sociality
BIOL 4182 (p. 86)	Population Biology
BIOL 4245 (p. 86)	Field Biology
BIOL 4402 (p. 86)	Ornithology
BIOL 4403 (p. 86)	Ornithology Laboratory
BIOL 4422 (p. 86)	Entomology
BIOL 4423 (p. 86)	Entomology Laboratory
BIOL 4501 (p. 86)	Flowering Plant Families: Phylogeny And Diversification

#### Economics

ECON 3300 (p. 86)	International Economic Analysis
ECON 3301 (p. 86)	International Finance
ECON 4550 (p. 86)	Natural Resource Economics

#### History

HIST 3000 (p. 86)	Selected Topics In History
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#### Political Science

POL SCI 3480 Environmental Politics  
(p. 86)

POL SCI 3590 Women and Leadership World-Wide: Breaking the  
(p. 86) Glass Ceiling

POL SCI 3850 International Organizations And Global Problem-  
(p. 86) Solving

POL SCI 4510 Comparative Public Policy And Administration  
(p. 86)

Total Hours

21

## Pre-professional Graduation

The Department of Biology sponsors a 3+4 Program for the UMSL College of Optometry.

In this program students may be admitted to the College of Optometry after completing three years (90 semester hours) of study in the Department of Biology. The undergraduate degree is granted when students satisfactorily complete the first year of optometry school. One or more of the following conditions must be met in order to qualify for the undergraduate degree. All general education requirements and all requirements for the major, except electives, must be completed. Any deficiency in required courses must be remedied with courses taken at UMSL within three years after entering the College of Optometry. Up to 6 hours from the College of Optometry may be substituted for undergraduate degree requirements, with approval of the Department of Biology.

## UMSL – Logan College (3+3 program)

The Department of Biology has developed a 3+3 articulation agreement with Logan College of Chiropractic (LCC). This program enables qualified students the opportunity to complete a Bachelor of Science degree in Biology for the University of Missouri – St. Louis as well as a Doctor of Chiropractic for Logan College of Chiropractic in six years.

The program is only open to students who enter UMSL as first-time freshmen.

Participants must complete their first 90 hours of college work (3 years) at UMSL following a prescribed curriculum.

Participants who have achieved at least 3.25 GPA at UMSL will automatically be granted admission by Logan College of Chiropractic.

After successfully completing an additional 30 credit hours (4th year) at Logan, a student will receive a BS in Biology degree from UMSL.

After completing two additional years at Logan, the student will receive a doctorate in chiropractic

The acceptance of transfer credits or testing toward completion of degree requirements shall be governed by current policies of UMSL. However, no more than 20 credits of required courses, and NONE of the science credits required for admission to LCC may be earned via examination or transfer from another school

LCC shall accept, for the entrance date of their choice, all students who successfully complete the Pre-Chiropractic Program with a cumulative GPA of 3.25 or higher and meet all other criteria for admission

Students who earn less than a 3.25 GPA, but at least a 2.50 GPA, will be eligible for admission to LCC, and will receive appropriate consideration in the admission process for having completed the UMSL Pre-Chiropractic

Program, but will not receive the assurance of a seat reserved for students earning a 3.25 or higher GPA

Students will make application to LCC one year in advance of their desired entrance date and will complete all required application procedures thereafter in a timely manner, including submission of recommendation and a satisfactory interview.

This program offers benefits to students (six years instead of seven from high school to doctorate). The University of Missouri courses are listed below:

### General Education Requirements

Humanities: 9

Select from General Education List

Social Sciences (One course must be a Psychology): 9

Select from General Education List of courses meeting Social Science Gen. Ed requirements.

American History & Government 3

### Choose

Select one of the following: 3

MATH 1310 Elementary Statistical Methods

or MATH 1320 Applied Statistics I

or BIOL 4122 Biometry

COMM 1040 Introduction To Public Speaking

ENGL 1100 First-Year Writing

ENGL 3160 Writing In The Sciences

### Major

Foundation courses:

BIOL 1821 Introductory Biology: Organisms And The Environment 5

BIOL 1831 Introductory Biology: From Molecules To Organisms 5

BIOL 2012 Genetics 3

BIOL 2482 Microbiology 3

BIOL 3622 Cell Biology 3

BIOL 3302 Introduction To Evolution 3

BIOL/CHEM 4712 Biochemistry 3

BIOL 4889 Senior Seminar 2

PHYSICS 1011 Basic Physics I 4

PHYSICS 1012 Basic Physics II 4

CHEM 1111 Introductory Chemistry I 5

CHEM 1121 Introductory Chemistry II 5

CHEM 2612 Organic Chemistry I 3

CHEM 2622 Organic Chemistry II 3

CHEM 2633 Organic Chemistry Laboratory 2

PHIL 2256 Bioethics 3

MATH 1030 College Algebra 3

MATH 1035 Trigonometry 2

### Choose

MATH 1100 Basic Calculus 3-5

or MATH 1800 Analytic Geometry And Calculus I

Total Hours

88-90

The remaining 30 hours to be taken at Logan include:

- Transfer Credits (34):
- Anatomy I / Lab (6)
- Spinal Anatomy / Lab (5)
- Biochemistry I / Lab (4)
- Histology / Cell Biology / Lab (5)
- Anatomy II / Lab (6)
- Neuroanatomy / Lab (5)
- Biochemistry II (4)
- Physiology I (4)
- Microbiology / Lab (4)

## Graduate Studies

The graduate program offers both Masters and Ph.D. degrees, as well as Graduate Certificates in Biotechnology and Tropical Biology and Conservation.

### Advisors

All graduate students will have a faculty advisor. In the event that a student's interest changes or the faculty advisor feels the student's direction no longer falls with his/her area of expertise, the student and advisor should discuss whether a change of advisor is warranted. The graduate director must be notified in writing of any change in advisors. If a student or advisor is uncomfortable discussing the issue directly with the other, he/she is encouraged to meet with the director of the graduate program.

### Graduate Assistantships

Stipends for teaching and research assistantships are awarded on a competitive basis to qualified graduate students in masters or PhD. Programs. Tuition fees are waived for graduate assistants. Applications for assistantships must be sent to the Director of Graduate Studies in the Department of Biology and received by December 15.

### Master of Science in Biology

The Department of Biology offers three ways of achieving the Master of Science degree. The first is a 30 credit hour non-thesis option suitable for those who may already have extensive research experience, for educators who seek to upgrade their academic skills but do not require research experience, or for those who need to broaden their biological background. The second is a 32 credit hour Professional Science track that includes a strong business component for students who are interested in learning more about the business aspects of companies. This track may not be appropriate for students who are interested in pursuing a PhD or working primarily as laboratory scientists. The third is a 30 credit hour traditional apprenticeship in research leading to a written thesis. All students admitted to the graduate program are considered to be in the non-thesis program unless they have been accepted into an individual faculty lab. Starting with a common core, both the thesis and non-thesis option may be developed into a final degree program in either of two broad areas in biology:

1. Cell and Molecular Biology or
2. Ecology, Evolution, and Systematics.

Non-thesis students may also elect to take courses in both areas. Only the non-thesis option is available in the Professional Science emphasis.

### M.S. Admission Requirements

Applicants to the M.S. program must submit completed application and personal data forms, three letters of recommendation from undergraduate faculty or work supervisors, and transcripts of all previous work. Submission of Graduate Record Examination scores, although not required, is highly recommended and will be helpful for positive consideration of admittance. Admission as a regular graduate student requires graduation from an accredited college with a minimum grade point average overall and in biology courses of 3.0 (where A = 4.0).

All foreign applicants, except those from countries where English is the primary language, must take the TOEFL. Ordinarily, a score of 213 on the computer-based exam (550 on the paper-based exam) or better is required.

In addition to the Graduate School admission requirements, applicants should have completed advanced undergraduate biology courses including genetics, biochemistry, and evolution. Courses in organic chemistry, college physics, and calculus are also expected, and a course in statistics is highly recommended.

Students admitted to the degree program who have not met some of the prerequisites may be asked to pass appropriate courses before graduating. These courses will be agreed upon by the student's advisor and the student during the first semester of enrollment. In particular, undergraduate deficiencies in genetics and either biochemistry or evolution shall be made up by taking the appropriate course(s). Three credits of BIOL 4920 Selected Topics can be given to graduate students for BIOL 2012 (Genetics) or BIOL 3302 (Evolution), if they receive a grade of B or better for all undergraduate course work and complete a graduate level paper assigned by the instructor. Instructor consent is required.

### General Requirements

All students are required to take at least 4 but not more than 8 hours of BIOL 6889, Graduate Seminar. However, Professional Science masters students must take only 4 credit hours total of BIOL 6889. Thesis students are required to take BIOL 5179, Ethical Issues in Biology. Students are expected to maintain a GPA of 3.0 or better. Students may choose to specialize in either Cellular and Molecular Biology (CMB) emphasis area or the Ecology, Evolution and Systematics (EES) emphasis area, and appropriate courses in each area will be recommended by the student's advisor. The Professional Science emphasis area in CMB has specific course requirements that are described below.

### Non-thesis Option

Including the general requirement, students must take at least 30 graduate credit hours, of which at least half must be at the 5000 or 6000 level. No more than 5 hours of BIOL 6905, Graduate Research, may be counted toward the degree.

### Thesis Option

The student and adviser work together to develop a research plan. The thesis proposal must be approved by the student's adviser and advisory committee before the student enrolls in more than 4 credit hours of BIOL 6905, Graduate Research, and before the student has completed 15 credit hours in the master's program. No more than 13 hours of BIOL 6905, Graduate Research, may be counted toward 30 hours of the degree. A thesis embodying results of original research shall be submitted to and approved by the Department of Biology and the Graduate School. This approval requires both a written thesis and oral presentation and defense.



## Professional Science in Cellular and Molecular Biology Emphasis

(pending CBHE Approval)

This track requires a total of 32 credit hours, of which at least half must be at the 5000-level or above. Students will take 21 credit hours in Biology, 9 hours in business courses, and 2 credit hours of internship/practicum. Professional Science students: 1) must take 2 seminars (4 credit hours total) of BIOL 6889, 2) are limited to a maximum of 2 credit hours of Topics in Cellular and Molecular Biology (BIOL 5069) and 3) **cannot** count any hours of Graduate Research (BIOL 6905) as part of the 32 credit hour total.

### Required Courses

BIOL 6889	Graduate Seminar (must be taken twice)	4
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Choose three of the following:		9-10
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BIOL 6602	Advanced Molecular Biology	
BIOL 6612	Advanced Molecular Genetics Of Bacteria	
BIOL 6615	Advanced Biotechnology Laboratory II	
BIOL 6622	Advanced Cellular Basis of Disease	
BIOL 6632	Advanced Nucleic Acid Structure And Function	
BIOL 6642	Advanced Plant Biology And Biotechnology	

<b>Elective Courses in Biology</b>		7-8
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BIOL 4713	Techniques In Biochemistry	
BIOL 4842	Immunobiology	
BIOL 5069	Topics In Cellular And Molecular Biology <sup>1</sup>	
BIOL 6442	Advanced Developmental Biology	
BIOL 6550	Advanced Bacterial Pathogenesis	
BIOL 6602	Advanced Molecular Biology	
BIOL 6612	Advanced Molecular Genetics Of Bacteria	
BIOL 6622	Advanced Cellular Basis of Disease	
BIOL 6632	Advanced Nucleic Acid Structure And Function	
BIOL 6642	Advanced Plant Biology And Biotechnology	
BIOL 6652	Advanced Virology	
BIOL 6920	Topics In Biology (when relevant)	

<b>Required Internship or Practicum</b>		2
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BIOL 5798	Practicum in Science in Business	
or BIOL 5799	Internship in Sciences in Business	

<b>Professional Science Business Electives</b>		9
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MGMT 3623	Industrial And Organizational Psychology	
BUS AD 5000	Economics For Managers	
BUS AD 5100	Managerial Communication	
MGMT 5600	Managing People in Organizations	
MKTG 5700	Contemporary Marketing Concepts	
BUS AD 5900	Law, Ethics And Business	

<sup>1</sup> Maximum of 2 credit hours.

## Doctor of Philosophy in Biology

The doctoral program emphasizes empirical and theoretical approaches to biological research. Students are required to integrate basic skills in biology with focal studies in an emphasis area. The program is designed to provide research experience and training appropriate for advanced

positions in academic research and teaching, government and public agencies, and industry.

## Ph.D. Admission Requirements

Applicants to the Ph.D. program must submit a formal application to the Graduate Admissions Office. In addition, the applicant should arrange to have sent: three letters of recommendation from faculty members at previously attended colleges or universities, GRE scores (Verbal, Quantitative, and Analytical), and transcripts of all postsecondary academic work. Admission to the Ph.D. program normally requires a minimum grade point average overall and in biology courses of 3.0 (where A=4.0). Applicants from countries where English is not a primary language are required to take the TOEFL examination. Scores must be submitted before admission can be decided. Ordinarily, a score of 550 or better is required.

Applicants should have a bachelor's or M.S. degree from an accredited United States college or university or evidence of equivalent training at an accredited institution outside the United States. They should have the appropriate background for graduate work in biology, including courses in genetics, biochemistry, and evolution. Courses in organic chemistry, college physics, and calculus are expected. A course in statistics is recommended. Students admitted to the Ph.D. program who have not met all the prerequisites may be required to make up deficiencies before admission to candidacy. The deficiencies will be decided during orientation meetings prior to the start of the second semester. Three credits of BIOL 4920 (p. 86) Selected Topics can be given to graduate students for BIOL 2012 (p. 86) or BIOL 3302 (p. 86) if they receive a grade of B or better for all undergraduate course work and complete a graduate-level paper assigned by the instructor. Instructor consent is required.

## Ph.D. Degree Requirements

In addition to the general requirements of the Graduate School, the basic requirements for the Ph.D. degree in Biology include 60 graduate credit hours. At least 30 of the 60 hours must be taken at the 5000 or 6000 level. With the explicit consent of the advisory committee, students may take for graduate credit up to 3 credit hours of 3000 level courses in allied departments. All students are required to take BIOL 5179 (p. 86), Ethical Issues in Biology. Courses in biology at the 3000 level and below are not available for graduate credit. At least 31 of the 60 hours must be taken while in residence at the University of Missouri-St. Louis. Graduate credit for course work transferred from another program is subject to approval by the graduate committee and by the Graduate School. Graduate courses taken elsewhere will be considered for transfer credit during orientation meetings conducted prior to the start of the second semester of enrollment.

The requirements for all Ph.D. students include:

- 30 hours of course work, including:
  - At least 6 credits of BIOL 6889 (p. 86), Graduate Seminar
  - One credit of BIOL 5179 (p. 86), Ethics in Biology (to be taken the first semester)
  - BIOL 4122 (p. 86), Biometry, or an equivalent undergraduate course in statistics. This requirement is normally waived if the student has already taken an undergraduate course in statistics and received a B- or higher. Bioinformatics can also be substituted for BIOL 4122 (p. 86) Biometry.

The maximum number of credit hours that may be applied toward the 60-hour requirement is limited as stated below:

- BIOL 6889 (p. 86), Graduate Seminar: 10 hours
- BIOL 6905 (p. 86), Graduate Research: 30 hours

A combination of 6 total credit hours of the following:

- BIOL 5059 (p. 86), Topics in Ecology, Evolution, and Systematics
- BIOL 5069 (p. 86), Topics in Cellular and Molecular Biology
- BIOL 5079 (p. 86), Topics in Floristic Taxonomy

## Emphasis area requirements

Each Ph.D. student is associated either with the Cellular and Molecular Biology (CMB) emphasis area, or the Ecology, Evolution and Systematics (EES) emphasis area. Each of these areas has its own course requirements in addition to the University-wide and department-wide requirements listed above.

### Ecology, Evolution and Systematics

BIOL 5312 (p. 86)	Theory Of Systematics	3
BIOL 6182 (p. 86)	Advanced Population Biology	3
BIOL 5192 (p. 86)	Community Ecology	3

### Cellular and Molecular Biology

Select three of the following: <sup>1</sup>		9-10
BIOL 6602 (p. 86)	Advanced Molecular Biology	
BIOL 6612 (p. 86)	Advanced Molecular Genetics Of Bacteria	
BIOL 6615 (p. 86)	Advanced Biotechnology Laboratory II	
BIOL 6622 (p. 86)	Advanced Cellular Basis of Disease	
BIOL 6632 (p. 86)	Advanced Nucleic Acid Structure And Function	
BIOL 6642 (p. 86)	Advanced Plant Biology And Biotechnology	

<sup>1</sup> An equivalent graduate level course at another university may be substituted for one of the required courses, if approved by the Graduate Director

## Maintenance of Status

All students are expected to maintain a GPA of 3.0 or better. Students will normally meet formally with their thesis committee, or if that has not been formed, with their advisor each year to maintain their status in the program.

## First-Year Experience

Ph.D. students in the Cellular and Molecular Biology emphasis area typically rotate through three different labs during their first semester before choosing/being accepted by a particular dissertation advisor. Ph.D. students in the Ecology Evolution and Systematics emphasis area typically are accepted by a particular dissertation advisor as part of the Ph.D. program application/acceptance process. All students are expected to become involved in research by the spring semester of their first year.

## Qualifying Examination

All students must pass a qualifying examination consisting of a written and oral component. Students beginning studies in the fall semester will normally take the qualifying examination at the end of their fourth semester of full-time study. Doctoral students who have earned an M.S. degree previously are encouraged to take the examination in their first year.

The examination for Ecology, Evolution and Systematics students evaluates knowledge of fundamental principles presented in formal courses and in papers of special importance in the field. The written exam will be given in April at the end of the spring semester, and the oral portion immediately afterwards.

The Qualifying Examination for Cellular and Molecular students is composed of a written portion in which the student prepares a formal research proposal on a topic different from that of her/his doctoral dissertation research, and an oral portion during which the student defends the research proposal as well as his/her knowledge of the fundamental concepts of molecular biology, cell biology, and biochemistry.

## Admission to Candidacy

To be admitted to candidacy, students must satisfy the requirements of the Graduate School, which includes passing all qualifying examinations and completing all required course work.

## Dissertation Proposal

All students must defend orally a written dissertation proposal to their dissertation committee. The approved proposal must be submitted to the director of graduate studies in biology. Doctoral students may not enroll in more than 4 credits of graduate research (BIOL 6905 (p. 86)) before they have received approval for their dissertation proposal. The proposal is to be successfully defended by the end of the sixth semester.

## Dissertation

A dissertation embodying the results of original research shall be submitted to and approved by the Department of Biology and the Graduate School. The general regulations of the Graduate School concerning the preparation of the dissertation must be met. These rules include a public oral defense of the written dissertation. Dissertations are to be presented in a style appropriate for one or more publications in scientific journals.

## Teaching

At least one semester of supervised teaching is required of all doctoral students.

## Graduate Certificate in Biotechnology

The Graduate Certificate in Biotechnology is offered for students with a bachelor's degree who wish to obtain advanced level training in those fields of biology that pertain to biotechnology without necessarily earning a master's degree. Students who enter this program may have a variety of interests, including biochemistry, microbiology, molecular biology, cell biology, developmental biology, or molecular evolution.

## Admission

Students who wish to earn a Graduate Certificate in Biotechnology must apply to the Biotechnology Certificate Program for admission to the program. Students must be enrolled in the graduate program at the University of Missouri-St. Louis either as non-degree students or as master's students.

Students who wish to obtain a Master's degree with a Biotechnology Certificate must be accepted into the Master's degree program in Biology as well as into the Biotechnology Certificate Program. Students who apply to the certificate program as non-degree students will earn only the certificate.

Students must have at least a 3.0 GPA for undergraduate course work to be accepted into the program. The minimum course prerequisites for admission to the program are undergraduate courses in genetics, cell biology, and biochemistry.

## Requirements

Students must maintain a minimum GPA of 3.0 to remain in the certificate program. The certificate is awarded after completion of the courses listed below. Students enrolled in the Master's program may simultaneously earn a graduate degree and count the appropriate courses from the list below toward the Biotechnology Certificate.

The biotechnology certificate requires 18 credit hours of course work:

BIOL 6615 (p. 86)	Advanced Biotechnology Laboratory II	4
BIOL 6602 (p. 86)	Advanced Molecular Biology (If both Group II courses are taken, one may be used as elective credit)	3
or BIOL 6612 (p. 86)	Advanced Molecular Genetics Of Bacteria	

### Electives

Select 11 credits from the following: 11

Biology

BIOL 4712 (p. 86) Biochemistry

BIOL 4842 (p. 86) Immunobiology

BIOL 5069 (p. 86) Topics In Cellular And Molecular Biology

BIOL 6550 (p. 86) Advanced Bacterial Pathogenesis

BIOL 6612 (p. 86) Advanced Molecular Genetics Of Bacteria

BIOL 6622 (p. 86) Advanced Cellular Basis of Disease

BIOL 6632 (p. 86) Advanced Nucleic Acid Structure And Function

BIOL 6642 (p. 86) Advanced Plant Biology And Biotechnology

BIOL 6652 (p. 86) Advanced Virology

BIOL 6699 (p. 86) Graduate Internship In Biotechnology

BIOL 6889 (p. 86) Graduate Seminar

BIOL 6915 (p. 86) Graduate Research Practicum

BIOL 6920 (p. 86) Topics In Biology

Chemistry

CHEM 4722 (p. 86) Advanced Biochemistry

CHEM 4733 (p. 86) Biochemistry Laboratory

CHEM 4772 (p. 86) Physical Biochemistry

Total Hours

18

## Graduate Certificate in Tropical Biology and Conservation

The Graduate Certificate in Tropical Biology and Conservation is intended for students who wish to pursue a career in conservation biology or ecology from either a research or practical standpoint. Cooperating institutions include the Missouri Botanical Garden, St. Louis Zoo, Center for International Studies at UMSL, and the Departments of Economics, History, Political Science, and Social Work.

### Admission

Student enrolled in UMSL who intend to receive a Graduate Certificate in Tropical Biology and Conservation must complete an application form available from the Graduate School. Student not enrolled in a course of graduate studies at UMSL must apply simultaneously to the University's Graduate Admissions office. Students who have a baccalaureate degree or are enrolled in graduate work elsewhere may apply for admission to the certificate program without regular admission to the graduate program. Due to limited space, admission will be on a competitive basis based on student motivation and academic qualifications. The minimum admissions requirements include: (1) at least a 3.0 GPA for undergraduate course work or a 3.2 GPA for 12 credit hours of graduate course work; and (2) current enrollment in the graduate program in biology at UMSL having satisfied the prerequisites of the certificate; or completion of a baccalaureate degree and having satisfied the prerequisites of the certificate program. The minimum prerequisites are undergraduate courses in ecology, evolution and genetics.

### Requirements

The certificate is awarded after completion of 18 credit hours of core courses and electives with a minimum of 12 credits at the 5000 or 6000 level. Up to 3 credits may be taken at the 2000 - 3000 level upon permission of the Graduate Committee. Electives must include a minimum of 3 credits outside biology with a maximum of 7 outside biology. A maximum of 3 credits may be taken at institutions other than UMSL. Students may simultaneously earn a graduate degree and count credits earned in their degree program toward the certificate when appropriate.

### Required Core Courses

BIOL 6250 (p. 86)	Public Policy Of Conservation And Sustainable Development	3
or POL SCI 6452 (p. 86)	Public Policy Of Conservation And Sustainable Development	
BIOL 6299 (p. 86)	Internship In Conservation Biology <sup>1</sup>	1-4
BIOL 6222 (p. 86)	Advanced Tropical Ecology And Conservation	3
or BIOL 6270 (p. 86)	Advanced Global Climate Change	

### Electives

#### Biology

BIOL 4182 (p. 86) Population Biology

BIOL 4402 (p. 86)	Ornithology
BIOL 4422 (p. 86)	Entomology
BIOL 4501 (p. 86)	Flowering Plant Families: Phylogeny And Diversification
BIOL 5123 (p. 86)	Advanced Tropical Resource Ecology Field Studies
BIOL 5192 (p. 86)	Community Ecology
BIOL 6102 (p. 86)	Advanced Topics In Behavioral Ecology
BIOL 6112 (p. 86)	Advanced Evolution Of Animal Sociality
BIOL 6182 (p. 86)	Advanced Population Biology
BIOL 6192 (p. 86)	Applications Of Geographic Information Systems
BIOL 6222 (p. 86)	Advanced Tropical Ecology And Conservation
BIOL 6270 (p. 86)	Advanced Global Climate Change
BIOL 6889 (p. 86)	Graduate Seminar

**Economics**

ECON 3300 (p. 86)	International Economic Analysis
ECON 4550 (p. 86)	Natural Resource Economics

**History**

HIST 3000 (p. 86)	Selected Topics In History
HIST 6114 (p. 86)	Readings In Latin American History
HIST 6115	

**Political Science**

POL SCI 3480 (p. 86)	Environmental Politics
POL SCI 3595 (p. 86)	Studies In Comparative Politics
POL SCI 3830 (p. 86)	International Political Economy
POL SCI 3850 (p. 86)	International Organizations And Global Problem-Solving
POL SCI 3890 (p. 86)	Studies In International Relations
POL SCI 4510 (p. 86)	Comparative Public Policy And Administration
POL SCI 4850 (p. 86)	International Law
POL SCI 6448 (p. 86)	Political Economy And Public Policy
POL SCI 6480 (p. 86)	Proseminar In International Relations

**Social Work**

SOC WK 4950 Seminar In Social Work Issues (p. 86)

- <sup>1</sup> May be replaced with a biology elective for individuals with applied conservation or environmental agency experience upon consent of the Graduate Committee.

**Sample Four Year Plans**

Biology BA (p. 98) Biology BS (p. 99)

**Biology BA****First Year**

Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 General Education	3
ENGL 1100	3 MATH 1035	2
MATH 1030	3 CHEM 1111	5
General Education <sup>3</sup>	9 BIOL 1821	5
	<b>16</b>	<b>15</b>

**Second Year**

Fall	Hours Spring	Hours
CHEM 1121	5 BIOL 2013	2
MATH 1800	5 PHYSICS 101	4
BIOL 1831	5 General Education	3
	CHEM 2612	3
	BIOL 2012	3
	<b>15</b>	<b>15</b>

**Third Year**

Fall	Hours Spring	Hours
CHEM 2223, 2622, 2633, or 4712 <sup>2</sup>	2-3 Biology diversity course	3-5
BIOL 3622	3 Foreign Language 1001	5
PHYSICS 1012	4 BIOL 2000+ level lab course	2
General Education	3 BIOL 3302	3
Elective or minor	3	
	<b>15-16</b>	<b>13-15</b>

**Fourth Year**

Fall	Hours Spring	Hours
ENGL 3160	3 BIOL 4889	2
BIOL 2000+ level lab course	2 BIOL 4000+ level lecture course	3
BIOL 4000+ level lecture course	3 Foreign Language 2101	3
Foreign Language 1002	5 General Education	6
General Education	3	
	<b>16</b>	<b>14</b>

Total Hours: 119-122

- <sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.
- <sup>2</sup> CHEM 2633 is a 2 credit hour course. The Biology diversity course taken in the Spring semester needs to be at least 4 credit hours in order to meet the 120 hours required for the degree.



- <sup>3</sup> The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science or Humanities general education course.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## BIOLOGY BS

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 CHEM 1111	5
ENGL 1100	3 General Education	3
General Education <sup>3</sup>	9 BIOL 1821	5
MATH 1030	3 MATH 1035	2
	<b>16</b>	<b>15</b>
Second Year		
Fall	Hours Spring	Hours
BIOL 1831	5 BIOL 2012	3
CHEM 1121	5 BIOL 2013	2
MATH 1800	5 PHYSICS 1011	4
	General Education	3
	CHEM 2612	3
	<b>15</b>	<b>15</b>
Third Year		
Fall	Hours Spring	Hours
CHEM 2622 or BIOL 4712	3 Biology diversity course	3-5
CHEM 2633 or 2223 <sup>2</sup>	2-3 BIOL 3302	3
BIOL 3622	3 PHIL 2256 or 3380	3
PHYSICS 1012	4 Elective or minor	3
General Education	3 BIOL 2000+ level lab course	2
	<b>15-16</b>	<b>14-16</b>
Fourth Year		
Fall	Hours Spring	Hours
ENGL 3160	3 BIOL 4889	2
BIOL 2000+ level lab course	2 BIOL 4000+ level lecture course	3
BIOL 4000+ level lecture course	3 General Education	6
General Education	3 Elective or minor	3
Elective or minor	3	
	<b>14</b>	<b>14</b>

Total Hours: 118-121

- <sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.
- <sup>2</sup> CHEM 2633 is a 2 credit hour course. The Biology diversity course taken in the Spring semester must be 5 credit hours in order to meet the 120 hours required for the degree.

- <sup>3</sup> The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science or Humanities general education course.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Courses

### **BIOL 1010 Introduction to Student Biological Research: 1-2 semester hours**

Prerequisites: Permission of Instructor. An opportunity for high school students to develop individual research projects under faculty mentorship. Includes interdisciplinary lectures, demonstrations, seminars, and project guidance. Evaluation will be based on written and oral presentation of the research project and student portfolio.

### **BIOL 1012 General Biology: 3 semester hours**

Emphasis on fundamental principles of biology. BIOL 1012 can be applied toward fulfillment of the general education requirement in science. BIOL 1012 does not satisfy the prerequisite requirements in other courses in biology at the 2000 level or above. Students who plan to pursue a career in medicine or one of the medical-oriented professions should enroll in BIOL 1831 rather than BIOL 1012.

### **BIOL 1013 General Biology Laboratory: 2 semester hours**

Prerequisite: BIOL 1012 (may be taken concurrently). Laboratory course to accompany BIOL 1012. BIOL 1013 can be used to fulfill the general education requirements in a laboratory science. BIOL 1013 does not meet the prerequisite requirements for other courses in biology. Three and one-half hours of laboratory per week.

### **BIOL 1102 Human Biology: 3 semester hours**

Lectures and readings concerned with the reproduction, development, genetics, functional anatomy, behavior, ecology, and evolution of the human species. Three hours lecture per week. Fulfills Science/Math requirement.

### **BIOL 1131 Human Physiology And Anatomy I: 4 semester hours**

Prerequisite: BIOL 1012 or its equivalent. The basic aspects of the structure of the healthy human body and how it functions. Special emphasis is on how the human body adapts itself to its environment and how changes affect physiological activities. Three hours lecture and two hours laboratory per week.

### **BIOL 1141 Human Physiology And Anatomy II: 4 semester hours**

Prerequisite: BIOL 1131. A continuation of BIOL 1131. A study of the basic aspects of human physiology and anatomy. Three hours lecture and two hours laboratory per week.

### **BIOL 1162 General Microbiology: 3 semester hours**

Prerequisite: BIOL 1012 or its equivalent. A survey of microbiology structure, genetics, and physiology. Special emphasis will be placed on the transmission and control of such organisms as it relates to the maintenance of human health. Three hours of lecture per week.

### **BIOL 1202 Environmental Biology: 3 semester hours**

An examination of the biological basis of current environmental problems, with emphasis upon resources, energy, pollution and conservation. Three hours lecture per week. Fulfills Science/Math requirement.

**BIOL 1821 Introductory Biology: Organisms And The Environment: 5 semester hours**

Prerequisites: A minimum of high school chemistry, ENGL 1100 or equivalent (may be taken concurrently), and placement into college algebra or higher. Required for students intending to major in biology or take specified biology courses at the 2000 level or above. This course presents an introduction to some of the principles of biology and scientific methodology applied to the organism and supraorganism levels of biology. Topics to be covered include: ecology, evolution, diversity, and population biology. Three hours of lecture and one hour of discussion per week.

**BIOL 1831 Introductory Biology: From Molecules To Organisms: 5 semester hours**

Prerequisites: A minimum of high school chemistry and MATH 1030; ENGL 1100 or equivalent (may be taken concurrently). Required for students intending to major in biology or take specified biology courses at the 2000 level or above. This course presents an introduction to some of the principles of biology and scientific methodology applied to the molecular/ cellular through organ system levels of organization. Topics include: cell structure, metabolism, reproduction, heredity and major physiological processes regulated by organ systems. Three hours of lecture, three and one half hours of lab, and one hour of discussion per week.

**BIOL 1999 Evolution for Everyone: 3 semester hours**

Evolution for Everyone explores the development of our current understanding by examining modern and ancient controversies, and by studying major processes by which change occurs. Lectures will present overviews and many examples on topics in history, mechanisms, and outcome of evolutionary change, and students will participate in classroom and online discussions based on readings, computer exercises, and data collection and analysis. Course may not be applied towards major in Biology. Not eligible for credit with BIOL 3302 (Introduction to Evolution) required for Biology majors.

**BIOL 2012 Genetics: 3 semester hours**

Prerequisites: BIOL 1831 (majors must also take BIOL 1821) MATH 1030, and CHEM 1111 or (CHEM 1081 plus CHEM 1091). Fundamental principles of inheritance, including classical genetic theory as well as recent advances in the molecular basis of heredity. Three hours of lecture per week. Fulfills Science/Math requirement.

**BIOL 2013 Genetics Laboratory: 2 semester hours**

Prerequisites: Concurrent registration in BIOL 2012, or by permission of instructor. Laboratory to accompany BIOL 2012. Three and one-half hours of organized laboratory time per week. Students may need to return to the laboratory at unscheduled times to complete some exercises.

**BIOL 2102 General Ecology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. An examination of the relationships between living organisms and their environment. Three hours lecture per week. Fulfills Science/Math requirement.

**BIOL 2103 General Ecology Laboratory: 2 semester hours**

Prerequisites: BIOL 2102 required (may be taken concurrently); a general statistics course strongly recommended. An analysis of environmental factors influencing the abundance and distribution of living organisms. Some classes will be held at field sites in and around St. Louis. Three and one-half hours of laboratory or field work per week.

**BIOL 2402 Vertebrate Anatomy, Evolution and Ecology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. Development, structure, function, interrelationships, and zoogeography of vertebrate animals with particular attention to phylogenetic aspects. Three hours of lecture per week. Fulfills Science/Math requirement.

**BIOL 2403 Vertebrate Anatomy, Evolution and Ecology Laboratory: 2 semester hours**

Prerequisite: BIOL 2402 (may be taken concurrently). Laboratory to accompany BIOL 2402. Morphological analysis and systematic survey of major vertebrate groups. Overview of the vertebrate life forms and their adaptations to habitats and resources. Three and one-half hours of laboratory per week.

**BIOL 2482 Microbiology: 3 semester hours**

Prerequisites: BIOL 1831 (majors must also take BIOL 1821), MATH 1030, and CHEM 1111. Study of microorganisms, their metabolism, genetics, and their interaction with other forms of life. Three hours of lecture per week.

**BIOL 2483 Microbiology Laboratory: 2 semester hours**

Prerequisite: BIOL 2482 (may be taken concurrently). Experimental studies and procedures of microbiological techniques. Three and one-half hours of organized laboratory time per week. Students will need to return to the laboratory at unscheduled times to complete some exercises.

**BIOL 2501 Biology Of Plants: 5 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. A general discussion of the plant groups from algae through angiosperms. Plant morphology, physiology, reproduction and ecology will be discussed in lecture (three hours per week). The laboratory (three and one half hours per week) involves examination of representatives of the plant kingdom and experimentation in plant physiology and genetics. Fulfills both a lecture and laboratory requirement.

**BIOL 3001 Experiential Practicum in Biosciences: 1 semester hour**

Prerequisites: Consent of Biology Curriculum Committee. Credit for off-campus bioscience projects providing extraordinary student experience and service to a community in need.

**BIOL 3102 Animal Behavior: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. The study of invertebrate and vertebrate behavior, including neurophysiological, hormonal, developmental, genetic, ecological and evolutionary aspects of behavior; behavior interactions within and between populations. Three hours of lecture per week.

**BIOL 3103 Animal Behavior Laboratory: 2 semester hours**

Prerequisites: BIOL 3102 (may be taken concurrently). Observational and experimental studies of animal behavior in the field and laboratory. Three and one-half hours of formal laboratory time per week, but additional time may be required for independent projects. Some activities involve field trips or trips to the St. Louis Zoo.

**BIOL 3123 Tropical Resource Ecology Field Studies: 2 semester hours**

Prerequisites: BIOL 3122 (may be taken concurrently). The field component to the lecture and seminar course. Examines the patterns of use and exploitation of resources in the topics by humans in the context of the theories of behavioral ecology. Two weeks of intensive field research and lectures in Guyana, South America during the second and third weeks of Summer Session I (trip costs to be borne by the student). Students may not receive credit for both BIOL 3123 and BIOL 5123. Offered in odd numbered years.

**BIOL 3202 Conservation Biology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. Introduction to the principles and theories of conservation biology. Course topics include biodiversity, extinctions, population modeling, habitat fragmentation, conservation area management, restoration ecology, and social science elements of conservation strategies. Class sessions will include lectures, discussions, and simulation exercises. Three hours of lecture per week.

**BIOL 3203 Conservation Biology Laboratory: 2 semester hours**

Prerequisite: BIOL 3202 (recommended to be taken concurrently). Laboratory to accompany BIOL 3202. Laboratory will include computer simulations of conservation problems using existing software, 2-3 field trips to local conservation projects, and field interviews with governmental and nongovernmental agencies. Three and one-half hours of laboratory per week.

**BIOL 3302 Introduction To Evolution: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831, and MATH 1030; BIOL 2012 strongly recommended. Introduction to the theory, events, and processes of organic evolution.

**BIOL 3622 Cell Biology: 3 semester hours**

Prerequisites: BIOL 1831, BIOL 2012, CHEM 2612, and MATH 1030. Examination of the organization and basic processes of cells including tissues, organelles, glycolysis, respiration, photosynthesis, trafficking, cytoskeleton, signal transduction, and cell division.

**BIOL 3699 Undergraduate Internship In Biotechnology: 1-4 semester hours**

Prerequisites: BIOL 1821, BIOL 1831, and CHEM 1111 and CHEM 1121 and consent of instructor. Concurrent enrollment in CHEM 2612 or higher is strongly encouraged. A 2.5 GPA and enrollment in the undergraduate Biotechnology Certificate Program is required. Internship will consist of a period of observation, experimentation and on-the-job training in a biotechnology laboratory. The laboratory may be industrial or academic. Credit will be determined by the number of hours a student works each week and in consultation between the intern's supervisor and instructor. Internship assignments will be commensurate with the education and experience of the student. Two credits may be used to fulfill the lab requirement.

**BIOL 3802 Vertebrate Physiology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831 and CHEM 1111 or CHEM 1081 plus CHEM 1091). Basic functional aspects of organ systems in relation to the physiochemical properties of protoplasm. Three hours lecture per week. Fulfills Science/Math requirement.

**BIOL 3803 Vertebrate Physiology Lab: 2 semester hours**

Prerequisite: BIOL 3802 (may be taken concurrently). Instrumental and experimental studies in physiology. Three and one-half hours laboratory per week.

**BIOL 4102 Behavioral Ecology: 3 semester hours**

Prerequisite: BIOL 3102 (BIOL 2102 recommended). Topics in animal behavior with an emphasis on ecological and evolutionary aspects of behavior. Topics will include the role of behavior in population regulation, habitat selection and spacing, feeding and predator-prey interactions, sexual selection, evolution of mating systems, and new approaches to animal communication. Three hours of lecture per week. Students may not receive credit for both BIOL 4102 and BIOL 6102.

**BIOL 4112 Evolution Of Animal Sociality: 3 semester hours**

Prerequisites: BIOL 3102, BIOL 2102, or BIOL 4182 recommended, or consent of instructor. The evolution of sociality, including a critical examination of sociobiological theories and alternative approaches to social evolution. Survey of social organization and behavior in arthropods, with an emphasis on social insects, & vertebrates Two hours of lecture, one hour of discussion per week. Students may not receive credit for both BIOL 4112 and BIOL 6112.

**BIOL 4122 Biometry: 3 semester hours**

Prerequisites: MATH 1030 and a minimum of 15 hours in biology. Reviews descriptive, analytical, and experimental methods useful for the statistical study of biological phenomena. Students will develop the skills needed to better appreciate and evaluate the published literature, as well as the ability to design their own research programs. Topics include: the collection and summarization of biological observations; development, design, and testing of hypothesis; analysis and presentation of data. Three hours of lecture per week. Fulfills the statistics requirement for the B.A. or B.S. degree in biology.

**BIOL 4182 Population Biology: 3 semester hours**

Prerequisite: BIOL 2102 and BIOL 2012 (BIOL 3302 recommended) Introduces concepts and mathematical models of population ecology and population genetics. By integrating the ecology and genetics of populations, the course goal is to understand the processes that contribute to microevolution of populations. Topics include: demography, metapopulation biology, natural selection, migration, gene flow, and genetic drift. Three hours of lecture per week. Students may not receive credit for both BIOL 4182 and BIOL 6182.

**BIOL 4192 Applications of Geographic Information Systems: 5 semester hours**

Prerequisites: BIOL 2102, BIOL 4122 or equivalent, and consent of instructor. Geographic Information Systems (GIS) are sophisticated computer-based systems for analysis, capture, presentation, and maintenance of geographically referenced data. This course provides a foundation in using GIS for spatial analysis. Although biological examples are primarily used, examples from a range of disciplines are employed to emphasize the use of GIS as a tool to support analysis and decision-making. Students will have hands-on use of GIS software during each session. An independent research project applying the spatial analysis tools learned in GIS to biological research will be required. Five hours of combined lecture and computer operations, plus 2-3 hours of open lab per week. Fulfills both a lecture and a laboratory requirement. Students may not receive credit for both BIOL 4192 and BIOL 6192.

**BIOL 4222 Tropical Ecology And Conservation: 3 semester hours**

Prerequisite: BIOL 2102, BIOL 4182, BIOL 5192, or equivalent. This Course Will Cover Research Areas In Tropical Population, Community And Ecosystem Ecology, With Emphasis On Inter-Species And Environment-Organism Interactions, Population Control Factors, And Genetic Structure Of Populations. Topics Include The Current Status And Causes Of Tropical Habitat Destruction, Ongoing Attempts To Manage Those Habitats, And Development Of Strategies Leading To Sustained Use Of Non-Renewable Resources. Three Hours Of Lecture Per Week. Students May Not Receive Credit For Both BIOL 4222 And BIOL 6222.

**BIOL 4245 Field Biology: 3 semester hours**

Prerequisite: Three biology courses and consent of instructor. Intensive study of the flora and fauna of selected natural areas of North America, including an extended field trip. Details of the field trip and course schedule will be posted in the Biology department preceding registration for the term in which the course will be offered. Students will be required to pay costs of travel and of the field trip. This is a laboratory course appropriate for advanced undergraduates and non-thesis Master of Science students. Students may not receive credit for both BIOL 4245 and BIOL 6245.

**BIOL 4270 Global Climate Change: 3 semester hours**

Prerequisites: BIOL 3302 or consent of instructor. Topics included are fundamental physical, meteorological, and biological circumstances of global climate change, as well as predictions of its future effects on biological diversity, including humans, and how those estimates are made. In addition, basic environmental economics and politics of climate change at local and global levels will be included. The course will be taught as a series of lectures and discussions led by guest experts in each of the subdisciplines covered. Students may not receive credit for both BIOL 4270 and BIOL 6270.

**BIOL 4299 Practicum In Conservation: 2 semester hours**

Prerequisites: Consent of instructor and BIOL 3643, Conservation Biology. This course is generally restricted to students officially enrolled in the Certificate Program in Conservation Biology. The course provides practical experience with conservation or environmental agencies. Specific placement will be selected according to student's interests and career goals as well as availability of agency openings. Course requirements include practical experience and final report on practicum experience.

**BIOL 4308 Transmission Electron Microscopy Hours: 3 semester hours**

Same as PHYSICS 4308 Course introduces students to transmission electron microscopy techniques and their applications to solving challenging materials and biological problems. Course includes fundamental principles (electron optics), electron-specimen interactions, diffraction of electrons, image formation and interpretation, image processing and analysis, energy dispersive X-ray spectroscopy, electron energy loss spectroscopy, and sample preparation of both biological and non-biological systems. Laboratory experiments will provide students "hands-on" experience with TEM operations and problem solving skills. Successful completion of the course enables students to independently operate transmission electron microscopes to perform basic research experiments. This course is ideal for students interested in ultrastructural or nanocharacterization of biological or materials systems. Two classroom hours and two hours of laboratory per week.

**BIOL 4402 Ornithology: 3 semester hours**

Prerequisites: BIOL 2102 and junior standing. Introduction to avian biology and ecology. Material to be covered will include basic adaptations of anatomy, physiology, and behavior of birds. There will be a strong emphasis on avian ecology and conservation. Specific topics will include flight, reproductive behavior, migration, foraging behavior, community structure, and current conservation concerns. The diversity of birds will be emphasized through comparisons between temperate and tropical regions. Three hours of lecture per week.

**BIOL 4403 Ornithology Laboratory: 2 semester hours**

Prerequisites: BIOL 4402 (may be taken concurrently), or consent of instructor. This course will introduce students to methods of identifying and studying birds. Labs will almost entirely be comprised of field trips to local areas and will emphasize diversity of birds, adaptations shown by different groups, and means of identification, particularly of birds found in Missouri. Field projects will focus on techniques for censusing birds, sampling foraging behavior, and studying habitat selection. Indoor periods will cover internal and external anatomy of birds. Slides and field trips to the St Louis Zoo will be used to survey the diversity of birds worldwide. Three and one-half hours of laboratory per week. Longer (e.g., Saturday) field trips will be made when appropriate.

**BIOL 4422 Entomology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. 9 additional hours of biology and upper-division standing. Development, structure, function, behavior and ecology of insects, including a systematic survey of the orders of Insecta. Three hours of lecture per week.

**BIOL 4423 Entomology Laboratory: 2 semester hours**

Prerequisites: BIOL 4442 (may be taken concurrently). Laboratory to accompany BIOL 4422. Studies of the morphology, physiology, and behavior of insects to give a sampling of biological studies of the class Insecta. Formation of a collection of insects, comprising a systematic survey of orders and principal families, will be an integral part of the course and will require additional time beyond the official lab hours. Three and one-half hours of lab per week.

**BIOL 4442 Developmental Biology: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 3622. A study of the basic principles that shape the embryonic and post-embryonic development of animals with an emphasis on the underlying cellular and molecular mechanisms. Specific topics include fertilization, determination of cell fate and differentiation, cell migration, establishment of the body plan, formation of selected organs and organ systems, stem cells, and limb regeneration. Environmental influences on development and the impact of developmental biology on modern medicine are also discussed. Three hours of lecture/discussion per week. Students may not receive credit for both BIOL 4442 and BIOL 6442.

**BIOL 4501 Flowering Plant Families: Phylogeny And Diversification: 5 semester hours**

Prerequisites: BIOL 1821, BIOL 1831 and junior standing or consent of instructor. Focusing on the flowering plant families of North America, the aim of the course is to give an understanding of their phylogeny and diversification. Student will also gain an understanding of plant morphology and anatomy, a basis for further developing their knowledge of plants. Three hours of lecture and three to four hours of laboratory per week. Students may need to return to the laboratory at unscheduled times.

**BIOL 4502 Evolution of Cognition: 3 semester hours**

Prerequisites: BIOL 3102 or Consent of Instructor; BIOL 3302 and PSYCH 2211 are strongly recommended. The evolutionary ecology of animal cognitive abilities. Topics include learning, memory, perception, navigation, and communication from an evolutionary perspective. The focus is on cognitive abilities as adaptations, which have evolved to solve specific environmental problems. Topics include empirical methods for assessing cognitive ability, experimental design, theoretical approaches for generating predictions, and the parsimonious interpretation of data. Two hours of lecture and one hour of discussion per week.

**BIOL 4550 Bacterial Pathogenesis: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482 Examination of the strategies bacterial pathogens use to infect animals. Topics include host immune responses to infection, bacterial virulence factors, regulation of bacterial virulence, and the cellular and molecular approaches used to study host-parasite interactions. Three hours of lecture per week. Students may not receive credit for both BIOL 4550 and BIOL 6550.

**BIOL 4602 Molecular Biology: 3 semester hours**

Prerequisites: BIOL 2012 and CHEM 2612. A study of the principles of molecular biology, with emphasis on understanding the genetic regulation of DNA, RNA, and protein synthesis and function in eukaryotic cells. Three hours of lecture per week. Students may not receive credit for BIOL 4602 and either BIOL 6602, or any course previously called Gene Expression in Eukaryotes or Advanced Gene Expression in Eukaryotes.



**BIOL 4612 Molecular Genetics Of Bacteria: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. A study of the molecular biology of gene replication, transfer, and expression in bacterial cells. Topics include DNA replication, transcription and translation, mutagenesis, DNA repair and recombination, gene transfer, and the regulation of genes and global expression systems. Three hours of lecture per week. Student may not receive credit for BIOL 4612 and either BIOL 6612 or any course previously called Gene Expression in Prokaryotes or Advanced Gene Expression in Prokaryotes.

**BIOL 4614 Biotechnology Laboratory I: 4 semester hours**

Prerequisites: BIOL 2012 or consent of instructor. An introduction to the fundamental concepts that underlie the field of biotechnology. Both the basic principles of molecular biology and hand-on experience with the techniques of the field will be addressed through lectures, discussions, and a series of laboratory exercises. Two hours of lecture and four hours of laboratory per week. Fulfills a laboratory requirement only; may not be used to fulfill the higher level (4000-5000) lecture course requirement for the B.A. or B.S. degree in biology. Students may not receive credit for BIOL 4614 and a comparable biotechnology course from another institution.

**BIOL 4615 Biotechnology Laboratory II: 4 semester hours**

Prerequisites: BIOL 4614 and either BIOL 4602 or BIOL 4612, or consent of instructor. An in-depth look at theory and practice of biotechnology. Lectures and discussion will examine the underlying principles, and laboratory exercises will present hands-on experience with current techniques. One hour of lecture and six hours of laboratory per week. Fulfills a laboratory requirement only; may not be used to fulfill the higher level (4000-5000) lecture course requirement for the B.A. or B.S. degree in biology. Students may not receive credit for BIOL 4615 and BIOL 6615.

**BIOL 4622 Cellular Basis of Disease: 3 semester hours**

Prerequisites: BIOL 3622. A study of the structural organization and processes of eukaryotic cells, focusing on how defects in cellular function lead to genetic diseases and cancer. Topics of discussion may include membrane dynamics, intracellular trafficking, signal transduction, and the cell cycle. Three hours of lecture per week. Students may not receive credit for both BIOL 4622 and BIOL 6622.

**BIOL 4632 Nucleic Acid Structure And Function: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 4712 or equivalent, or consent of instructor. A comprehensive view of the structural properties of DNA and RNA that promote molecular interactions and biological function. Topics will include the physical properties of nucleic acids, the formation and biological importance of higher order structures, RNA enzymatic activities, nucleic acid-protein interactions, and RNA metabolism. Three hours of lecture per week. Students may not receive credit for both BIOL 4632 and BIOL 6632.

**BIOL 4642 Plant Molecular Biology and Genetic Engineering: 3 semester hours**

Prerequisites: BIOL 4602 or BIOL 4612. Topics may include molecular and cellular aspects of plant growth, development, and responses to environmental stress and pathogen attack, using the experimental approaches of genetics, molecular biology, and biochemistry. Plant growth manipulation and genetic engineering, including techniques required for DNA transfer and plant regeneration, as well as current and potential future applications, such as engineered resistance to stress, developmental engineering, and metabolic engineering, also will be covered. Three hours of lecture per week. Student may not receive credit for both BIOL 4642 and BIOL 6642.

**BIOL 4652 Virology: 3 semester hours**

Prerequisite: BIOL 2012 and BIOL 3622. This first half of the course entails a comparative study of the structure, replication, and molecular biology of viruses. The second half of the course focuses on the pathogenesis, control, and evolution of animal viruses. Three hours of lecture per week. Students may not receive credit for both BIOL 4652 and BIOL 6652.

**BIOL 4662 Human Pathology: 3 semester hours**

Prerequisites: BIOL 3622 or consent of the instructor. A study of disease processes as they affect the human body. The course will examine both the proximate causes and underlying mechanisms of disease. Specific conditions will be used to illustrate application of clinical approaches in determining the origin, development, and effects of a disease.

**BIOL 4712 Biochemistry: 3 semester hours**

Prerequisites: CHEM 2612 and either BIOL 1831 or CHEM 2622. (Same as CHEM 4712) Examines the chemistry and function of cell constituents, and the interaction and conversions of intracellular substances. Students may not receive credit for both BIOL 4712 and CHEM 4712.

**BIOL 4713 Techniques In Biochemistry: 2 semester hours**

Prerequisites: BIOL 4712 or CHEM 4712 (may be taken concurrently). Laboratory activities introducing fundamental qualitative and quantitative biochemical techniques. Student evaluation will be based on laboratory participation, student laboratory reports, and written examinations. Three and one-half hours of organized laboratory time per week. Students may need to return to the laboratory at unscheduled times to complete some experiments.

**BIOL 4797 Biochemistry and Biotechnology Seminar: 1 semester hour**

Prerequisites: Same as CHEM 4797. Senior standing in the Biochemistry and Biotechnology program. This course will focus on selected publications related to biochemistry and biotechnology from both refereed journals and news sources. Students are expected to participate in discussions and to prepare oral and written presentations. Completion of the Major Field Achievement Test in Biochemistry & Biotechnology is a course requirement. May not be taken for graduate credit.

**BIOL 4822 Introduction To Neuroscience: 3 semester hours**

Prerequisite: BIOL 3802 or consent of instructor. The study of nervous systems, featuring the cellular bases of initiation and conduction for the impulse, synaptic transmission, and the network integrative function of invertebrate and vertebrate nervous systems. This course emphasizes the multidisciplinary nature of the neurosciences, including anatomical, physiological and molecular approaches to understanding neural function. Three hours of lecture per week.

**BIOL 4842 Immunobiology: 3 semester hours**

Prerequisite: BIOL 3622 and CHEM 2612. The fundamental principles and concepts of immunology and immunochemistry. Emphasis on the relation of immunological phenomena to biological phenomena and biological problems. Three hours lecture per week.

**BIOL 4889 Senior Seminar: 2 semester hours**

Prerequisites: BIOL 1821, BIOL 1831, BIOL 2012, and BIOL 3302, with a total of at least 30 credits in Biology. Oral and written presentation by students of selected scientific papers or articles. Students are expected to participate in discussions of oral presentations by other students. May not be taken for graduate credit.

**BIOL 4905 Research: 1-3 semester hours**

Prerequisites: Consent of faculty research advisor. Research in an area selected by the student in consultation with and under the direct supervision of an UMSL biology faculty research adviser. Research opportunities are subject to availability and must be approved in advance of beginning research. The project may include the reading of pertinent literature, laboratory or field experience, including keeping of a logbook, and a summary paper and a presentation, all based on an average 8 hours per week per credit during a 15 week semester at the discretion of the instructor. Credit arranged. Course may be repeated for a total of up to 5 credit hours. A maximum of one lab requirement may be satisfied using any two BIOL 4905 credits. Additional credits may be applied toward the total biology hours required for the biology BA or BS. May not be taken for graduate credit.

**BIOL 4915 Biology Internship: 1-3 semester hours**

Prerequisites: Consent of faculty research advisor; generally restricted to junior and senior standing. Research in an area selected by the student to be conducted off-campus in a lab of a professional researcher or faculty person (the internship mentor) other than those in UMSL Biology. Research opportunities are subject to availability and must be approved in advance of beginning research by an UMSL biology faculty liaison and the internship mentor. The project normally includes the reading of pertinent literature, laboratory or field experience, including keeping of a logbook, and a summary paper and a presentation, all based on an average 8 hours per week per credit during a 15 week semester. Credit arranged. This course and Biol 4905 may be repeated in any combination for a total of up to 5 credit hours. A maximum of one lab requirement may be satisfied using any two BIOL 4905 and/or BIOL 4915 credits. Additional credits may be applied toward the total biology hours required for the biology BA or BS.

**BIOL 4920 Selected Topics: 1-10 semester hours**

Prerequisite: Junior standing and consent of instructor. Selected topics in biology. The topics will vary each semester. Topics offered for the following semester will be available in the departmental office. Credit arranged. May be taken more than once for credit.

**BIOL 4986 Laboratory In Teaching Life Sciences: 2 semester hours**

Same as SEC ED 4986. Prerequisite: TCH ED 3310. Discussion, development, utilization, and evaluation of equipment, materials, and techniques applicable to instruction in the life sciences. Must be taken concurrently with BIOL 4985/ SEC ED 4985.

**BIOL 5059 Topics In Ecology, Evolution, And Systematics: 1 semester hour**

Prerequisites: Graduate Standing. Presentation and discussion of faculty and student current research projects in behavior, ecology, evolution, and systematics. May be repeated.

**BIOL 5069 Topics In Cellular And Molecular Biology: 1 semester hour**

Presentation and discussion of student and faculty research projects and/or current research articles in molecular, cellular and developmental biology. May be repeated.

**BIOL 5079 Topics In Floristic Taxonomy: 1 semester hour**

Prerequisite: BIOL 2501 or equivalent, and graduate standing. Seminar course in systematics of higher plants, arranged in the Cronquist sequence of families, covering morphology, anatomy, palynology, biogeography, chemosystematics, cytology, and other aspects of plant classification and phylogenetics. Given at the Missouri Botanical Garden. One hour per week.

**BIOL 5089 Topics In Animal Behavior: 1 semester hour**

Prerequisites: Graduate standing. Presentation and discussion of current research articles and/or student and faculty research projects in animal behavior, including ecology, evolution, genetics, and mechanisms of behavior. May be repeated.

**BIOL 5123 Advanced Tropical Resource Ecology Field Studies: 2 semester hours**

Prerequisites: BIOL 5122 (may be taken concurrently). The field component to the lecture and seminar course. Examines the patterns of use and exploitation of resources in the tropics by humans in the context of the theories of behavioral ecology. Two weeks of intensive field research and lectures in Guyana, South America during the second and third weeks of Summer Session I (trip costs to be borne by the student). Students may not receive credit for both BIOL 3123 and BIOL 5123. Offered in odd numbered years.

**BIOL 5179 Ethical Issues in Biology: 1 semester hour**

Prerequisites: Graduate Standing. Using readings and discussions, students will explore ethical issues in Biology in both professional and social realms. Professional topics include authorship, grants accounting, and academic misconduct; social topics include ethical foundations of basic and applied science, government regulation of science, environmental and individual protection, and current issues.

**BIOL 5192 Community Ecology: 3 semester hours**

Prerequisites: Graduate standing and either BIOL 2102 and BIOL 4182 or an equivalent course. Studies of structure and organization of natural communities stressing the abundance and distribution of species, the regulation of species diversity, and the evolution of demographic parameters in populations.

**BIOL 5312 Theory Of Systematics: 3 semester hours**

Prerequisites: BIOL 1821, BIOL 1831 and at least one course beyond the introductory level dealing with animal, plant, or microbial diversity (such as BIOL 2482, BIOL 2501, BIOL 2402, BIOL 4482, BIOL 4501, BIOL 4402, BIOL 4422) or consent of instructor. Course investigates the theory of classification, phylogenetic analysis, systematic biology, and their relation to systematic practice. Will cover goals and schools of systematics, characters and homology, analysis of molecular and morphological data and underlying assumptions, species concepts, classification, naming, and the connections between evolutionary biology and systematics. The course is appropriate for upper level undergraduates & graduate students in all disciplines, animal, plant, and microbial, as an introduction to systematic methods. Three hours of lecture per week.

**BIOL 5314 Herbarium Taxonomy: 2 semester hours**

Prerequisite: BIOL 5312. An introduction to the principles and practice of herbarium taxonomy, emphasizing species description, identification, how to access and use the taxonomic literature, data basing, nomenclature, curation, and collecting and the national and international regulations governing it. Two hours of lectures per week, projects including specimen curation, writing species description, etc., to be arranged. Offered every even year.

**BIOL 5436 Applied Bioinformatics: 3 semester hours**

Prerequisites: BIOL 4712 or BIOL 4602 or consent of instructor. This course provides a survey of the various computational approaches that can be used to solve biological problems. Specific attention will be focused on biological databases and methods for using and interpreting database information, sequence alignments, functional genomics, structure prediction, high-throughput analyses, and proteomics. Three hours of lecture per week.

**BIOL 5798 Practicum in Science in Business: 1-2 semester hours**

Same As CHEM 5798. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis in Chemistry, Biochemistry & Biotechnology, or Biology. Students will integrate and apply their scientific expertise to a practical, business-related problem. The course will emphasize interdisciplinary team-work as well as both written and oral communication skills.

**BIOL 5799 Internship in Science in Business: 1-2 semester hours**

Same As CHEM 5799. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis area in Chemistry, Biochemistry & Biotechnology, or Biology. The internship will consist of period of on-the-job training at a local company. Credit hours will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the course instructor. Internship assignments will be commensurate with the education and experience of the student, with an emphasis on work at the interface between the scientific and business components of the company. A written report describing the internship project is required.

**BIOL 6102 Advanced Topics In Behavioral Ecology: 3 semester hours**

Prerequisite: BIOL 3102 (BIOL 2102 is recommended). Topics in animal behavior with an emphasis on ecological and evolutionary aspects of behavior. Topics may include the role of behavior in population regulation, habitat selection and spacing, feeding and predator-prey interactions, sexual selection, evolution of mating systems, and new approaches to animal communication. Three hours of lecture, one hour of discussion or seminar per week. Students may not receive credit for both BIOL 4102 and BIOL 6102.

**BIOL 6112 Advanced Evolution Of Animal Sociality: 3 semester hours**

Prerequisites: BIOL 2102 or BIOL 4182 recommended or consent of instructor. The evolution of sociality, including a critical examination of sociobiological theories and alternative approaches of social evolution. Survey of social organization and behavior in arthropods, with an emphasis on social insects, & vertebrates. Two hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4112 and BIOL 6112.

**BIOL 6182 Advanced Population Biology: 3 semester hours**

Prerequisites: BIOL 2012 (BIOL 3302 recommended). Introduces concepts and mathematical models of population ecology and population genetics. By integrating the ecology and genetics of population, the course goal is to understand the processes that contribute to microevolution of populations. Topics include: demography, metapopulation biology, natural selection, migration, gene flow, and genetic drift. A discussion section will focus on mathematical elements of population biology models. Three hours of discussion per week. Students may not receive credit for both BIOL 4182 and BIOL 6182.

**BIOL 6192 Applications Of Geographic Information Systems: 5 semester hours**

Prerequisites: BIOL 2102, BIOL 4122 or equivalent, and consent of instructor. Geographic Information Systems (GIS) are sophisticated computer-based systems for analysis, capture, presentation, and maintenance of geographically referenced data. This course provides a foundation in using GIS for spatial analysis. Although biological examples are primarily used, examples from a range of disciplines are employed to emphasize the use of GIS as a tool to support analysis and decision-making. Students will have hands-on use of GIS software using Windows 2000/NT based workstations during each session. An independent research project applying the spatial analysis tools learned in GIS to biological research will be required. Five hours of combined lecture and computer operations, plus 2-3 hours of open lab per week.

**BIOL 6212 Theory And Application Of Conservation Biology: 3 semester hours**

Prerequisite: BIOL 4182 or BIOL 5162 or equivalent or consent of instructor. Prerequisites may be taken concurrently. Advanced analysis of conservation theory with emphasis on conservation of populations, their genetic diversity, and the biodiversity of habitats. Applied aspects of conservation and sustainable development will be illustrated through case studies presented by conservation professionals.

**BIOL 6222 Advanced Tropical Ecology And Conservation: 3 semester hours**

Prerequisite: BIOL 2102, BIOL 4182, or BIOL 5192, or their equivalent. This course will cover research areas in tropical population, community and ecosystem ecology, with emphasis on inter-species and environment-organism interactions, population control factors, and genetic structure of populations. Topics include the current status and causes of tropical habitat destruction, ongoing attempts to manage those habitats, and development of strategies leading to sustained use of non-renewable resources. A research proposal designed to investigate a current topic in tropical ecology will be required. Students may not receive credit for BIOL 4222 and BIOL 6222. Three hours of lecture per week.

**BIOL 6250 Public Policy Of Conservation And Sustainable Development: 3 semester hours**

Prerequisite: Same as POL SCI 6452. Graduate standing in Biology or Political Science and consent of instructor. Prior course in ecology recommended. This course will introduce the student to concepts and techniques for formulating, implementing, and analyzing public policy with an emphasis on environmental concerns, conservation, and sustainable development. The course will be team taught by a political scientist and a biologist. Course materials will include case studies that demonstrate the special problems of environmental policymaking in developing and developed economies.

**BIOL 6270 Advanced Global Climate Change: 3 semester hours**

Prerequisites: Graduate Standing or permission of the instructor. We will cover the fundamental physical, meteorological, and biological circumstances of global climate change, as well as predictions of its future effects on biological diversity, including humans, and how those estimates are made. We will also cover basic environmental economics and politics of climate change at local and global levels. The course will be taught as a series of lectures and discussions led by guest experts in each of the subdisciplines covered. Students may not receive credit for both BIOL 4270 and BIOL 6270.

**BIOL 6299 Internship In Conservation Biology: 1-4 semester hours**

Prerequisite: BIOL 6250 or BIOL 6212 and consent of the director of graduate studies in biology. Internships will consist of a period of study, observation and on-the-job training at a conservation or environmental agency. Specific placements will be selected according to student's interests and career goals. Internships may vary from 2 weeks to 4 months in duration.

**BIOL 6442 Advanced Developmental Biology: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 3622. A study of the basic principles that shape the embryonic and post-embryonic development of animals with an emphasis on the underlying cellular and molecular mechanisms. Specific topics include fertilization, determination of cell fate and differentiation, cell migration, establishment of the body plan, formation of selected organs and organ systems, stem cells, and limb regeneration. Environmental influences on development and the impact of developmental biology on modern medicine are also discussed. Three hours of lecture/discussion per week. Students may not receive credit for both BIOL 4442 and BIOL 6442.



**BIOL 6502 Advanced Evolution of Cognition: 3 semester hours**

Prerequisites: BIOL 3102 and BIOL 3302, or consent of instructor. PSYCH 2211 strongly recommended. The evolutionary ecology of animal cognitive abilities. Topics include learning, memory, perception, navigation, and communication from an evolutionary perspective. The focus is on cognitive abilities as adaptations, which have evolved to solve specific environmental problems. Topics include empirical methods for assessing cognitive ability, experimental design, theoretical approaches for generating predictions, and the parsimonious interpretation of data. Two hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4502 and BIOL 6502.

**BIOL 6550 Advanced Bacterial Pathogenesis: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. Examination of the strategies bacterial pathogens use to infect animals. Topics include host immune responses to infection, bacterial virulence factors, regulation of bacterial virulence, and the cellular and molecular approaches used to study host-parasite interactions. Students may not receive credit for both BIOL 6550 and BIOL 4550. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Three hours of lecture per week.

**BIOL 6552 Advanced Evolution And Phylogeny Of Seed Plants: 5 semester hours**

Prerequisites: BIOL 3302 or BIOL 2501, or equivalent. Advanced approaches in examination of the evolution of, and relationships among, major lines of seed-bearing plants, both extinct (Bennettitales, cordaites, etc.) and extant (conifers, cycades, ginkgo, Gnetales, and flowering plants). Criteria for the assessment of morphological homology are examined, and wherever possible the evolution of morphological structures is related to their function. Includes use of cladistic methods and practical exercises in the analysis of large morphological data matrices using PAUP and MacClade. Two hours of lecture per week and one hour of laboratory per week to be arranged. Does not fulfill a laboratory requirement for biology majors. Students may not receive credit for both BIOL 4552 and BIOL 6552.

**BIOL 6602 Advanced Molecular Biology: 3 semester hours**

Prerequisites: BIOL 2012 and CHEM 2612, or consent of instructor. A study of the principles of molecular biology, with emphasis on understanding the genetic regulation of DNA, RNA, and protein synthesis and function in eukaryotic cells. Three hours of lecture per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Students may not receive credit for both BIOL 6602 and BIOL 4602, or any course previously called Gene Expression in Eukaryotes or Advanced Gene Expression in Eukaryotes.

**BIOL 6612 Advanced Molecular Genetics Of Bacteria: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. A study of the molecular biology of gene replication, transfer, and expression in bacterial cells. Topics include DNA replication, transcription and translation, mutagenesis, DNA repair and recombination, gene transfer, and the regulation of genes and global expression systems. Three hours of lecture per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Student may not receive credit for both BIOL 6612 and BIOL 4612 or any course previously called Gene Expression in Prokaryotes or Advanced Gene Expression in Prokaryotes.

**BIOL 6615 Advanced Biotechnology Laboratory II: 4 semester hours**

Prerequisites: BIOL 4614 and either BIOL 4602 or BIOL 4612, or consent of instructor. An in-depth look at the theory and practice of biotechnology. Lectures and discussion will examine the underlying principles, and laboratory exercises will present hands-on experience with current techniques. One hour of lecture and six hours of laboratory per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Students may not receive credit for both BIOL 6615 and BIOL 4615 or any course previously called Techniques in Molecular Biology or Advanced Techniques in Molecular Biology.

**BIOL 6622 Advanced Cellular Basis of Disease: 3 semester hours**

Prerequisites: BIOL 3622, or consent of instructor. A study of the structural organization and processes of eukaryotic cells, focusing on how defects in cellular function lead to genetic diseases and cancer. Topics of discussion may include membrane dynamics, intracellular trafficking, signal transduction, and the cell cycle. Three hours of lecture per week. Students may not receive credit for both BIOL 6622 and BIOL 4622.

**BIOL 6632 Advanced Nucleic Acid Structure And Function: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 4712 or equivalent, or consent of instructor. A comprehensive view of the structural properties of DNA and RNA that promote molecular interactions & biological function. Topics will include the physical properties of nucleic acids, the formation and biological importance of higher order structures, RNA enzymatic activities, nucleic acid-protein interactions, and RNA metabolism. Three hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4632 and BIOL 6632.

**BIOL 6642 Advanced Plant Biology And Biotechnology: 3 semester hours**

Prerequisites: BIOL 4602 or BIOL 4612. Topics may include molecular and cellular aspects of plant growth, development, and responses to environmental stress and pathogen attack, using the experimental approaches of genetics, molecular biology, and biochemistry. Plant growth manipulation and genetic engineering, including the techniques required for DNA transfer and plant regeneration, as well as current and potential future applications, such as engineered resistance to stress, developmental engineering, and metabolic engineering, also will be covered. Student may not receive credit for both BIOL 4642 and BIOL 6642.

**BIOL 6652 Advanced Virology: 3 semester hours**

Prerequisites: BIOL 2012, BIOL 3622, and graduate standing. This first half of the course entails a comparative study of the structure, replication, and molecular biology of viruses. The second half of the course focuses on the pathogenesis, control, and evolution of animal viruses. Three hours of lecture, one hour of discussion or seminar per week. Students may not receive credit for both BIOL 4652 and BIOL 6652.

**BIOL 6699 Graduate Internship In Biotechnology: 1-4 semester hours**

Prerequisites: Graduate standing and enrollment in graduate Biotechnology Certificate Program. 6 credit hours maximum (maximum of 8 combined credit hours of BIOL 6905 and internship) Internship will consist of period of observation, experimentation and on-the-job training in biotechnology laboratory. The laboratory may be industrial or academic. Credit will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the instructor. Internship assignments will be commensurate with the education and experience of the student.



**BIOL 6889 Graduate Seminar: 2 semester hours**

Presentation and discussion of various research problems in biology. Graduate student exposure to the seminar process.

**BIOL 6905 Graduate Research In Biology: 1-10 semester hours**

Research in area selected by student in consultation with faculty members.

**BIOL 6915 Graduate Research Practicum: 1-2 semester hours**

Prerequisite: Consent of instructor. This course is designed for graduate students wishing to pursue research experience in an area outside their dissertation topic. The project can be techniques-oriented or focused on a specific research question. The credit hours will depend on the time commitment to the project as decided by the supervisory faculty member.

## Chemistry and Biochemistry

### General Information

#### Degrees and Areas of Concentration

The Department of Chemistry and Biochemistry offers courses leading to the following baccalaureate degrees:

- B.A. in Chemistry
- B.A. in Chemistry with a Biochemistry Certificate
- B.S. in Chemistry (with a Chemistry or Biochemistry Option)
- B.S. in Education with an emphasis in Chemistry (in cooperation with the College of Education)
- B.A. in Chemistry with teacher certification.

The department is accredited by the American Chemical Society. Students completing the B.S. degree (chemistry or biochemistry option) are certified by the American Chemical Society. The B.S. degree is the professional degree in chemistry, and students who earn the B.S. degree are well prepared for a career in the chemical industry or for graduate work in chemistry. The department provides opportunities for undergraduates to become involved in ongoing research projects and to participate in departmental teaching activities.

The department also offers graduate work leading to the M.S. or Ph.D. degree in chemistry with most graduate courses being scheduled in the evening. A student may earn a M.S. degree with or without a thesis. The non-thesis option provides a convenient way for students who are employed full-time to earn an advanced degree. The department also offers a non-thesis M.S. with a professional science emphasis. This option includes 9 credit hours of business courses and an internship practicum.

Research leading to a M.S. thesis or Ph.D. dissertation may be conducted in one of four emphasis areas, namely, inorganic chemistry, organic chemistry, physical chemistry, or biochemistry. The nature of the graduate program allows each student to receive individualized attention from his/her research mentor, and to develop hands-on experience with major instrumentation in the department.

### Fellowships and Scholarships

The following scholarships, fellowships and awards are available to chemistry majors:

- The John J. Taylor Scholarship is given to a full-time student with high financial need, pursuing a chemistry degree and currently enrolled either of junior or senior status.

- The Friends and Alumni Scholarship is given to a full-time student with high financial need and pursuing a chemistry degree.
- The Monsanto Scholarship in Biochemistry and Biotechnology is open to full-time Sophomore, Junior or Senior students at the University pursuing a Bachelor of Science degree in Biochemistry and Biotechnology.
- William and Erma Cooke Chemistry Scholarships are given annually to outstanding full-time chemistry majors who are at least sophomores and have financial need.
- The Lawrence Barton Scholarship is awarded to a junior, preferably a first generation college student.
- The Barbara Willis Brown Scholarship for Women in Chemistry is given annually to a female chemistry major who is at least 25 years of age. The student is encouraged to enroll in undergraduate research (CHEM 3905), however research is not requirement for this award. Student financial need is a consideration.
- The Eric G. Brunngraber Memorial Scholarship is given to a chemistry major based on GPA, statement of research interests, and performance in completed course work.
- Aid to Education Scholarships are given to junior or senior chemistry majors annually. Faculty select awardees on the basis of merit.
- The M. Thomas Jones Fellowship is given each semester to the graduate student who is deemed by his/her peers to have presented the best research seminar.
- The Graduate Research Accomplishment Prize is given annually. The recipient is chosen based on his/her publications, presentations at professional meetings, and seminars given at UMSL.
- Alumni Graduate Research Fellowships are available for summer study for selected chemistry graduate students.

Several undergraduate awards are given each year to outstanding students. The Chemical Rubber Company Introductory Chemistry Award is given to the outstanding student in introductory chemistry, the Outstanding Sophomore Chemistry Major award is made to the top sophomore chemistry student, the American Chemical Society Division of Analytical Chemistry Award is given to the outstanding student in analytical chemistry, the American Chemical Society-St. Louis Section, Outstanding Junior Chemistry Major Award is given to the outstanding junior chemistry major, and the outstanding senior receives the Alan F. Berndt Outstanding Senior Award.

### Departmental Honors

The Department of Chemistry and Biochemistry will award departmental honors to those B.A. and B.S. degree candidates in chemistry with an overall grade point average of 3.2. They must also successfully complete CHEM 3905, Chemical Research, and must present an acceptable thesis.

### Career Outlook

The St. Louis metropolitan area has long been a major center for industrial chemistry, and in the past decade it has become a focus for the establishment of life sciences research and development. A bachelor's degree in chemistry provides a student with the professional training needed to play a part in this ever-changing industry.

A major in chemistry provides excellent preprofessional training in the health sciences, and a double major in chemistry and biology is often chosen by premedical and pre dental students and those interested in graduate work in biochemistry and biology. A minor in chemistry provides

the minimum qualification and training for a position as a laboratory technician in industry, hospital laboratories, etc.

A Master's degree in chemistry is often required for further advancement in the chemical industry, whereas a doctoral degree opens the door to many opportunities, including careers in the academic world, industrial research and development, and in government laboratories.

## Undergraduate Studies

### General Education Requirements

Students must satisfy the university and college general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>). Courses in chemistry may be used to meet the university's science and mathematics area requirement. The college's foreign language requirement fulfills the departmental requirements for B.A. candidates. B.S. degree candidates are not required to take a foreign language; however, the American Chemical Society (ACS) states that the study of a foreign language is recommended, especially for students planning to pursue graduate studies in chemistry.

### Satisfactory/Unsatisfactory Restrictions

Chemistry majors may not take required chemistry, mathematics, or physics courses on a satisfactory/unsatisfactory basis.

### Declaring the Chemistry Major

Students seeking to major in chemistry are first designated as 'pre-chemistry majors' until they have completed both CHEM 1111 and CHEM 1121 or equivalent courses. Upon successful completion of CHEM 1111 and CHEM 1121 with grades of C or better, students will be allowed to declare chemistry as their major. Each of these courses must be completed successfully within two attempts.

## Degree Requirements

### Bachelor of Arts in Chemistry

This degree is intended primarily for preprofessional students in health science and related areas, as well as prelaw students interested in patent law. Candidates must complete the following chemistry courses:

CHEM 1111 (p. 107)	Introductory Chemistry I	5
CHEM 1121 (p. 107)	Introductory Chemistry II	5
CHEM 2223 (p. 107)	Quantitative Analysis	3
CHEM 2612 (p. 107)	Organic Chemistry I	3
CHEM 2622 (p. 107)	Organic Chemistry II	3
CHEM 2633 (p. 107)	Organic Chemistry Laboratory	2
CHEM 3022 (p. 107)	Introduction To Chemical Literature	1
CHEM 3312 (p. 107)	Physical Chemistry I	3
CHEM 3322 (p. 107)	Physical Chemistry II	3

CHEM 3333 (p. 107)	Physical Chemistry Laboratory I	2
CHEM 3412 (p. 107)	Basic Inorganic Chemistry	2
CHEM 4897 (p. 107)	Seminar	1

Select one of the following:

CHEM 3643 (p. 107)	Advanced Organic Chemistry Laboratory	
CHEM 4233 (p. 107)	Laboratory In Instrumental Analysis	
CHEM 4343 (p. 107)	Physical Chemistry Laboratory II	
CHEM 4433 (p. 107)	Inorganic Chemistry Laboratory	
CHEM 4733 (p. 107)	Biochemistry Laboratory	

Total Hours 33

No more than 45 hours in chemistry may be applied toward the degree. Each chemistry major must present a seminar and pass a comprehensive examination during the senior year. At least 12 credits at the 3000 level or higher must be completed at UMSL. The Department of Chemistry and Biochemistry may require students to pass a tracking test in order to enroll in the next level course, provided this or an equivalent test is administered to all students seeking to enroll in that course.

### Bachelor of Arts in Chemistry with a Biochemistry Certificate

The university offers a certificate program for science majors who are interested in careers in biochemistry. This is an interdisciplinary program that involves additional courses in biochemistry and biology. In addition to the usual requirements for the B.A. degree in chemistry, the student must take the following courses:

#### Chemistry

CHEM 4712 (p. 107)	Biochemistry	3
CHEM 4722 (p. 107)	Advanced Biochemistry	3
CHEM 4733 (p. 107)	Biochemistry Laboratory	2
CHEM 4772 (p. 107)	Physical Biochemistry	3

#### Biology

BIOL 1831 (p. 107)	Introductory Biology: From Molecules To Organisms	5
BIOL 2012 (p. 107)	Genetics	3
BIOL 3622 (p. 107)	Cell Biology	3
BIOL 4602 (p. 107)	Molecular Biology	3

Total Hours 25

At least 12 hours at the 3000 level or above must be completed at UMSL.

Students may obtain a minor in biology by adding BIOL 1821 (p. 107) to the curriculum described above. The Biology department also offers a certificate in biochemistry.

## Bachelor of Science in Chemistry

This is the first professional degree in chemistry. It may be taken as a terminal degree by students intending to become professional chemists or for preparation for graduate work in chemistry or biochemistry. Students may choose to specialize in chemistry or biochemistry.

### Chemistry Option

Candidates must complete the requirements for the B.A. degree in chemistry. In addition, the following chemistry courses are required:

CHEM 3643 (p. 107)	Advanced Organic Chemistry Laboratory	2
CHEM 4212 (p. 107)	Instrumental Analysis	2
CHEM 4233 (p. 107)	Laboratory In Instrumental Analysis	2
CHEM 4343 (p. 107)	Physical Chemistry Laboratory II	2
CHEM 4412 (p. 107)	Advanced Inorganic Chemistry	3
CHEM 4433 (p. 107)	Inorganic Chemistry Laboratory	2
CHEM 4712 (p. 107)	Biochemistry	3
Total Hours		16

Students must also take two elective hours of advanced work in chemistry at the 3000 level or above. Students are encouraged to take CHEM 3905 (p. 107), Chemical Research, to fulfill the advanced elective requirement.

### Biochemistry Option

Candidates must complete the requirements for the B. A. degree in chemistry. In addition, the following chemistry and biology courses are required:

#### Chemistry

CHEM 3643 (p. 107)	Advanced Organic Chemistry Laboratory	2
CHEM 4212 (p. 107)	Instrumental Analysis	2
CHEM 4233 (p. 107)	Laboratory In Instrumental Analysis	2
CHEM 4712 (p. 107)	Biochemistry	3
CHEM 4722 (p. 107)	Advanced Biochemistry	3
CHEM 4733 (p. 107)	Biochemistry Laboratory	2
Select one of the following:		3
CHEM 4772 (p. 107)	Physical Biochemistry	
CHEM 3905 (p. 107)	Chemical Research (3 credits)	

BIOL 4905 (p. 107) Research (3 credits)

#### Biology

BIOL 1831 (p. 107)	Introductory Biology: From Molecules To Organisms	5
BIOL 2012 (p. 107)	Genetics	3
BIOL 3622 (p. 107)	Cell Biology	3
Total Hours		28

If either research option is chosen, the project must be in biochemistry and must include a written final report submitted to the Department of Chemistry and Biochemistry.

Fifty-one hours of chemistry courses may be applied toward the degree. At least 24 hours of chemistry at the 3xxx level or higher must be completed at UMSL. Each chemistry major candidate must present a seminar and pass a comprehensive examination during the senior year.

## Related Area Requirements

### Bachelor of Arts and Bachelor of Science in Chemistry

Candidates for both degrees must also complete:

MATH 1800 (p. 107)	Analytic Geometry And Calculus I	5
MATH 1900 (p. 107)	Analytic Geometry And Calculus II	5
MATH 2000 (p. 107)	Analytic Geometry And Calculus III	5
PHYSICS 2111 (p. 107)	Physics: Mechanics And Heat	5
PHYSICS 2112 (p. 107)	Physics: Electricity, Magnetism, And Optics	5
Total Hours		25

## Degrees with Certification to Teach Chemistry in Secondary Schools

One can be certified to teach chemistry at the secondary level with a degree either in Education or in Chemistry. All candidates for certification must enroll in a program that includes Levels I, II, and III course work in the College of Education. The Missouri Department of Elementary and Secondary Education requires that candidates for certification to teach secondary chemistry complete certain Science Core Courses and specialized courses in chemistry

#### Science Core Courses

PHIL 3380 (p. 107)	Philosophy Of Science	3
BIOL 1831 (p. 107)	Introductory Biology: From Molecules To Organisms	5
CHEM 1111 (p. 107)	Introductory Chemistry I	5
CHEM 1121 (p. 107)	Introductory Chemistry II	5
BIOL 1202 (p. 107)	Environmental Biology	3

PHYSICS 2111	Physics: Mechanics And Heat (p. 107)	5
Select one of the following:		4
GEOL 1001	General Geology (p. 107)	
ATM SCI 1001	Elementary Meteorology (p. 107)	
ASTRON 1001	Cosmic Evolution Introductory Astronomy (p. 107)	
or equivalent		
<b>Chemistry Endorsement</b>		
CHEM 2223	Quantitative Analysis (p. 107)	3
CHEM 2612	Organic Chemistry I (p. 107)	3
CHEM 2622	Organic Chemistry II (p. 107)	3
CHEM 2633	Organic Chemistry Laboratory (p. 107)	2
CHEM 3312	Physical Chemistry I (p. 107)	3
or CHEM 3302	Physical Chemistry For The Life Sciences (p. 107)	
CHEM 4712	Biochemistry (p. 107)	3
SEC ED 4837	Chemistry/Physics Teaching Seminar (p. 107)	2
SEC ED 4989	Practicum I: Site Based Experience (p. 107)	3
SEC ED 4990	Practicum II: Site Based Experience (p. 107)	12
Total Hours		64

## Bachelor of Arts in Chemistry with Teacher Certification

Students must complete the B.A. in chemistry requirements, as well as the requirements for teacher certification. (See the College of Education section of this Bulletin.) There are a few science courses beyond the minimum listed above.

PHYSICS 2112	Physics: Electricity, Magnetism, And Optics (p. 107)	5
CHEM 3322	Physical Chemistry II (p. 107)	3
CHEM 3333	Physical Chemistry Laboratory I (p. 107)	2
CHEM 3412	Basic Inorganic Chemistry (p. 107)	2
Total Hours		12

Students earning BA or BS degrees in chemistry must achieve a GPA of 2.0 or higher for the combination of chemistry courses and required related area courses

## Minor in Chemistry

### Requirements for the Minor

Students may earn a minor in chemistry by completing the following program. The following five courses are required:

CHEM 1111	Introductory Chemistry I (p. 107)	5
CHEM 1121	Introductory Chemistry II (p. 107)	5
CHEM 2223	Quantitative Analysis (p. 107)	3
CHEM 2612	Organic Chemistry I (p. 107)	3
CHEM 2633	Organic Chemistry Laboratory (p. 107)	2
Select one of the following:		2-3
CHEM 2622	Organic Chemistry II (p. 107)	
CHEM 3312	Physical Chemistry I (p. 107)	
CHEM 3412	Basic Inorganic Chemistry (p. 107)	
CHEM/BIOL 4712	Biochemistry (p. 107)	

Total Hours 20-21

Courses, which are prerequisites to subsequent courses in the minor, may not be taken on a satisfactory/ unsatisfactory basis. A GPA of at least 2.0 is required for the courses presented for the minor. At least three courses toward the minor must be completed at UMSL.

## Bachelor of Science in Biochemistry and Biotechnology

The Department of Chemistry and Biochemistry, in cooperation with the Department of Biology, offers a Bachelor of Science degree in Biochemistry and Biotechnology (<https://nextbulletin.umsl.edu/artsandsciences/biochemistryandbiotechnology>). Information about this degree program may be found at the Biochemistry & Biotechnology Programs Home Page (<http://www.umsl.edu/~biotech>).

### 3+4 Chemistry – Optometry Program

This is a new program option for a Chemistry degree that would enable students to earn a BA in Chemistry in 3 years (likely requiring that some courses be taken over the summer semesters) and an Optometry degree in 4 years.

### 1st Semester (15)

CHEM 1111	Introductory Chemistry I (p. 107)	5
BIOL 1821	Introductory Biology: Organisms And The Environment (p. 107)	5
MATH 1800	Analytic Geometry And Calculus I (p. 107)	5

Total Hours 15



**2nd Semester (18)**

CHEM 1121 (p. 107)	Introductory Chemistry II	5
BIOL 1831 (p. 107)	Introductory Biology: From Molecules To Organisms	5
MATH 1900 (p. 107)	Analytic Geometry And Calculus II	5
PSYCH 1003 (p. 107)	General Psychology <sup>1</sup>	3
Total Hours		18

**Summer Option****Summer Semester (3-8)**

CHEM 2612 (p. 107)	Organic Chemistry I	3
CHEM 2622 (p. 107)	Organic Chemistry II	3
CHEM 2633 (p. 107)	Organic Chemistry Laboratory	2
Or General Education Courses <sup>2</sup>		
Total Hours		8

**3rd Semester (13+)**

MATH 2000 (p. 107)	Analytic Geometry And Calculus III	5
PHYSICS 2111 (p. 107)	Physics: Mechanics And Heat	5
CHEM 2612 (p. 107)	Organic Chemistry I <sup>3</sup>	3
General Education Courses <sup>2</sup>		
Total Hours		13

**4th Semester (15)**

PHYSICS 2112 (p. 107)	Physics: Electricity, Magnetism, And Optics	5
CHEM 2223 (p. 107)	Quantitative Analysis	3
CHEM 3412 (p. 107)	Basic Inorganic Chemistry	2
CHEM 2622 (p. 107)	Organic Chemistry II <sup>3</sup>	3
CHEM 2633 (p. 107)	Organic Chemistry Laboratory <sup>3</sup>	2
Total Hours		15

**Summer Option****Summer Semester (3-8)**

CHEM 2612 (p. 107)	Organic Chemistry I	3
CHEM 2622 (p. 107)	Organic Chemistry II	3
CHEM 2633 (p. 107)	Organic Chemistry Laboratory	2

Or General Education Courses <sup>2</sup>	
Total Hours	8

**5th Semester (13+)**

CHEM 3022 (p. 107)	Introduction To Chemical Literature	1
CHEM 3312 (p. 107)	Physical Chemistry I	3
CHEM 4712 (p. 107)	Biochemistry <sup>4</sup>	3
CHEM 4733 (p. 107)	Biochemistry Laboratory <sup>4</sup>	2
PSYCH 2201 (p. 107)	Psychological Statistics <sup>1</sup>	4
General Education Course <sup>2</sup>		
Total Hours	13	

**6th Semester (11+1)**

CHEM 3333 (p. 107)	Physical Chemistry Laboratory I	2
CHEM 3322 (p. 107)	Physical Chemistry II	3
CHEM 4897 (p. 107)	Seminar	1
BIOL 2482 (p. 107)	Microbiology <sup>1</sup>	3
BIOL 2483 (p. 107)	Microbiology Laboratory <sup>1</sup>	2
General Education Courses <sup>2</sup>		
Total Hours	11	

**Summer Option****Summer Semester**

General Education Courses <sup>1</sup>	
Total Hours	0

The basis for this 3+4 program is that students are required to do the courses (and the prerequisites) for the Chemistry Bachelor of Arts degree with the exception that students can substitute Optometry's Physical Optics and Photometry course (OPTOM 8140) for the advanced laboratory which is required for the B.A. in chemistry degree; additionally CHEM 3322 (p. 107) (Physical Chemistry II and CHEM 4897 (p. 107) (Seminar) can be completed in the first year of enrollment in the Optometry program though this is NOT recommended because students in the Optometry program take more than 20 credit hours each semester. In order to complete the chemistry program in 3 years, it is likely that some courses would need to be taken over the summer sessions (between semester 2 and 3 and between semester 4 and 5). Three chemistry classes that also are offered over the summer are suggested as options in the above schedule. These are quite compacted classes so it is not generally advised as the best option. If that summer option is chosen for those chemistry classes, however, some of the required General Education courses can be taken during the regular (3rd and 4th) semesters in place of the chemistry classes (CHEM 2612 (p. 107), CHEM 2622 (p. 107), CHEM 2633 (p. 107)) that also are scheduled for the 3rd and 4th

semester. Alternatively, General Education courses can be taken in the summer.

- 1 The College of Optometry requires two courses in English [e.g., Freshman Composition (ENGL 1100 (p. 107)), junior English courses (e.g., ENGL 3160 (p. 107), ENGL 3100 (p. 107))] which is also a General Education requirement, two courses in Psychology, two Liberal Arts courses, a Statistics course, and a course in Microbiology with Lab. If Psychological Statistics (PSYCH 2201 (p. 107), 4 credits) is taken as the second Psychology course, that also satisfies the Statistics course requirement. One of the courses suggested in psychology (General Psychology, PSYCH 1003 (p. 107)) also satisfies one of the three-course requirement in Social and Behavioral Sciences Knowledge (see not below on General Education courses).
- 2 General Education courses [(1) Communicating Skills (two 3 credit courses), (2) Managing Information Skills (one 3-credit course), (3) Valuing Skill (one 3-credit course), (4) Social and Behavioral Science Knowledge (three 3-credit courses) (5) Humanities and Fine Arts Knowledge (three 3-credit courses), and (6) Mathematics and Life/Natural Sciences Knowledge (four 3-credit courses)] and Foreign Language courses (required for the Chemistry B.A. degree) are not listed specifically here. The requirements for Skill Goal 2 and Knowledge Goal 6 would be fulfilled by completing courses in the program listed above.
- 3 CHEM 2612 (p. 107), CHEM 2622 (p. 107), and CHEM 2633 (p. 107) are courses offered during the summer; currently, CHEM 2223 (p. 107) is not.
- 4 The College of Optometry strongly recommends a course in Anatomy or Physiology and a course in Biochemistry. BIOL 1102 (p. 107) satisfies the Anatomy or Physiology requirement but this course is not included in the schedule listed above. Another course recommended by the College of Optometry is Cell Biology (BIOL 3622 (p. 107), Cell Biology, 3 credits)- this is not listed above either.

Gaining admission to Missouri's College of Optometry is a competitive process. Students selecting this 3+4 option should seek an initial interview with the Manager, Student and Special Services (and the Pre-Optometry Advisor) in the UMSL College of Optometry to insure that all prerequisites for the College of Optometry will be completed. In August following the completion of their second year of this 3+4 program, students may apply formally to the UMSL College of Optometry and arrange to take the Optometry Admissions Test (OAT) early in the fall of their third year. The OAT is offered through computer sites and may be scheduled almost at any time. After receipt of a completed application in the Fall Semester of the candidate's third year and depending on the OAT outcome, the applicant may be invited for a formal interview in the College of Optometry. Following the formal interview, candidates with a 3.0 or better grade point average in the science prerequisites for optometry and a score of 310 or better in the OAT exam may be accepted into the UMSL College of Optometry.

## Competencies/Expectations/Outcomes that all students must demonstrate to complete the program successfully:

1. Knowledge and comprehension in areas of chemistry - Graduates should have a foundation of knowledge in chemistry as outlined by the American Chemical Society Committee on Professional Training in their guide to Undergraduate Professional Education in Chemistry. In order to achieve the goals of any one of our chemistry degrees,

knowledge is required from the related areas of introductory physics and calculus.

2. Scientific problem-solving skills - Graduates should understand valid scientific approaches to problem-solving and be able to design experiments to test a hypothesis.
3. Data analysis/quantitative skills - Graduates should be able to draw valid conclusions from experimental data and observations. Graduates should be able to carry out statistical and linear regression analysis of data. Graduates should be able to evaluate the main possible sources of error in laboratory measurements.
4. Laboratory skills - Graduates should be able to carry out the basic techniques of preparative and analytical chemistry. An appreciation of the basic aspects of chemical spectroscopy should be achieved. B.S. degree graduates should have developed an appreciation of the application of advanced/specialized instrumentation to solving chemical problems. Graduates should be able to keep accurate records of experiments. Graduates should be able to work effectively in the laboratory individually or as a part of a small team. Graduates should have an awareness of the basic aspects of safe laboratory practices.
5. Communication skills - Graduates should be able to communicate scientific ideas clearly both orally and in written form. This includes the effective presentation of quantitative data and of scientific concepts or procedures using diagrams and/or figures.
6. Library/Information skills - Graduates should be able to search for and retrieve information from scientific journals, databases, and handbooks, especially those widely used by professional chemists.
7. Computer/software skills - Graduates should be proficient in the use of software widely used by practicing scientists, including word processors, scientific plotting and analysis software, spreadsheets, data acquisition software interfaced to commercial instruments, and simulation software.

## Graduate Studies

### Admission Requirements

Individuals with at least the equivalent of the B.A. degree in the natural sciences may be admitted to the Graduate School as candidates for the M.S. degree or as precandidates for the Ph.D. degree in chemistry. A student in the M.S. program may request to transfer to the Ph.D. program by petition to the department.

The department admissions committee considers applicants' grade point averages and normally requires above-average performance in all areas of chemistry as well as physics and mathematics, or other evidence of high aptitude for graduate work in chemistry. Applicants' GRE scores, letters of recommendation, and academic programs are also considered. In some cases the committee may require successful completion of undergraduate course work as a condition of enrollment as a regular student.

Students with bachelor's degrees in fields other than chemistry may be admitted to pursue graduate studies in chemistry, but they must make up background deficiencies, usually by taking undergraduate course work.

### Financial Support

Teaching assistantships are available to qualified applicants. Research assistantships and fellowships are available for advanced students. Departmental support is not normally available beyond the fifth year in the program. For further information,

contact the Department of Chemistry & Biochemistry Graduate Admissions.

## Preliminary Advisement

Students who have been admitted for graduate work in chemistry will be contacted by the Director of Graduate Studies in order to develop a tentative plan of study which takes into consideration the student's background and interests. Entering students are required to demonstrate proficiency at the undergraduate level in four areas of chemistry (biochemistry, organic, inorganic, physical, and analytical).

Proficiency may be demonstrated in one of the following ways:

- Outstanding performance in recent undergraduate course work.
- Satisfactory performance in standardized placement examinations. These examinations are given twice a year, approximately one week before the beginning of the fall and winter semesters.
- Successful completion of assigned course work.

The ultimate choice of whether students may enroll in the M.S. or Ph.D. degree programs resides with the chemistry faculty.

## Master's Degree Requirements

### Master of Science in Chemistry

Within two years of initial enrollment, candidates for the M.S. degree in chemistry must demonstrate proficiency at the undergraduate level in four of the following five areas: biochemistry, organic, inorganic, physical, and analytical chemistry.

A minimum of 30 hours is required, normally including 3 hours in CHEM 6897 Chemistry Colloquium. No more than 3 hours in CHEM 6897 may be applied toward the 30 credit hours.

### Distribution Requirement

Students may choose to focus their coursework efforts in one of four broadly defined subdiscipline areas (biochemistry, inorganic, organic, or physical chemistry). At least 6 hours of chemistry coursework in one (or more) sub-disciplines(s) outside of their major emphasis area must be completed. The following courses do not fulfill the distribution requirement:

CHEM 4212	Instrumental Analysis	2
CHEM 4233	Laboratory In Instrumental Analysis	2
CHEM 4302	Survey Of Physical Chemistry With Applications To The Life Scienc	3
CHEM 4343	Physical Chemistry Laboratory II	2
CHEM 4412	Advanced Inorganic Chemistry	3
CHEM 4433	Inorganic Chemistry Laboratory	2
CHEM 4712	Biochemistry	3
CHEM 4733	Biochemistry Laboratory	2

### Master of Science in Chemistry with Thesis

Students selecting this option must be enrolled full-time for at least two consecutive semesters. During this time, students are expected to enroll in CHEM 6905, Graduate Research in Chemistry, and conduct their thesis research. A maximum of 12 hours of may be applied toward the required 30 hours. At least 9 hours must be at the 5000 level, excluding CHEM 6905. A maximum of 9 hours in 3000 level or above courses outside the department may be accepted if students receive prior approval

of their advisers and the Director of Graduate Studies. Students are expected to follow all other general requirements of the Graduate School regarding master's degree and thesis requirements.

## Master of Science without Thesis

Unlike the thesis option, students need not be enrolled full-time. Of the required 30 hours, 15 credits must be at the 5000 level. A maximum of 6 credits of CHEM 6905, Graduate Research in Chemistry, may be included in place of 4000 level courses; a maximum of 12 hours taken in 3000 level or above courses outside the department may be accepted with prior approval of the Director of Graduate Studies.

### Master of Science Degrees for Doctoral Students

Doctoral students may receive a Master's degree in their program for work completed towards the doctoral degree. To receive a Master's degree, doctoral students must complete 30 credit hours of courses, with at least 15 of these credit hours in courses numbered at or above the 5000 level. No more than 3 hours in CHEM 6897, 3 hours from a combination of CHEM 6487, CHEM 6687, CHEM 6787, CHEM 6812, CHEM 6822 and CHEM 6832, and 6 hours of CHEM 6905 may be applied.

There are no distribution requirements for the Master's degree for Doctoral students.

The non-dissertation courses presented for the M.S. degree may not include any of the following courses:

CHEM 4212	Instrumental Analysis	2
CHEM 4233	Laboratory In Instrumental Analysis	2
CHEM 4302	Survey Of Physical Chemistry With Applications To The Life Scienc	3
CHEM 4343	Physical Chemistry Laboratory II	2
CHEM 4412	Advanced Inorganic Chemistry	3
CHEM 4433	Inorganic Chemistry Laboratory	2
CHEM 4712	Biochemistry	3
CHEM 4733	Biochemistry Laboratory	2
CHEM 6196	Advanced Reading In Chemistry	1

## Master of Science in Chemistry (Professional Science Emphasis)

(pending CBHE approval)

This option requires a minimum of 32 hours, of which 16 credit hours must be at or above the 5000 level. Students must take 21 credit hours of chemistry, 9 hours in business, and 2 credits hours of internship or practicum. A maximum of 3 credits of CHEM 6897 may be applied toward the required minimum of number of chemistry credits (21 hours).

The courses presented for the Master's degree (professional science emphasis) may not include any of the following:

CHEM 4212	Instrumental Analysis	2
CHEM 4233	Laboratory In Instrumental Analysis	2
CHEM 4302	Survey Of Physical Chemistry With Applications To The Life Scienc	3
CHEM 4343	Physical Chemistry Laboratory II	2
CHEM 4412	Advanced Inorganic Chemistry	3

CHEM 4433	Inorganic Chemistry Laboratory	2
CHEM 4712	Biochemistry	3
CHEM 4733	Biochemistry Laboratory	2
CHEM 6196	Advanced Reading In Chemistry	1
CHEM 6487	Problem Seminar In Inorganic Chemistry	1
CHEM 6687	Problem Seminar In Organic Chemistry	1-3
CHEM 6787	Problem Seminar In Biochemistry	1
CHEM 6812	Introduction To Graduate Study In Chemistry	1
CHEM 6822	Introduction To Graduate Research In Chemistry	1
CHEM 6905	Graduate Research In Chemistry	1-10

## Emphasis Area Requirements

### Elective Courses in Business (9 credit hours required)

MGMT 3623	Industrial And Organizational Psychology	3
BUS AD 5000	Economics For Managers	3
BUS AD 5100	Managerial Communication	3
MGMT 5600	Managing People in Organizations	3
MKTG 5700	Contemporary Marketing Concepts	3
BUS AD 5900	Law, Ethics And Business	3

### Required Internship or Practicum (2 credit hours required)

CHEM 5798	Practicum in Science in Business	2
or CHEM 5799	Internship in Science in Business	

## Doctoral Degree Requirements

Within one year of initial enrollment, incoming doctoral students must demonstrate proficiency in four of the following five areas: biochemistry, organic, inorganic, physical, and analytical chemistry. A minimum of 60 credit hours is required, including research hours.

## Comprehensive Exam Committee

Before the end of the second regular semester of study, the doctoral student and his/her research advisor will select a comprehensive exam committee. The student should prepare Graduate School form D-1, which should be signed by the research advisor and the Director of Graduate Studies, and filed with the graduate school.

In the Department of Chemistry & Biochemistry, the comprehensive exam committee also serves as a mentoring committee for the student. The committee will meet with the student at the end of each spring semester to review progress in coursework and research. A written report summarizing their assessment and recommendations will be provided to the student and the Director of Graduate Studies.

## Comprehensive Examinations

Each student seeking the Ph.D. degree must successfully complete a comprehensive examination prior to advancement to candidacy.

The comprehensive exam is typically taken when formal coursework has been completed, but it must be completed before the start of the fifth regular semester.

The comprehensive exam consists of writing an original research proposal and an oral defense that will be evaluated by the student's committee.

The student will select a topic that is not directly related to the expected research area. The research advisor must approve the topic. The specific format for the proposal is described in the Department of Chemistry & Biochemistry Handbook of Graduate Studies.

## Dissertation Proposal

Doctoral students must prepare and defend a Dissertation Proposal before the student has completed the equivalent of 6 regular semesters of full-time study. The proposal should be defended within six months following successful completion of the Comprehensive Examination.

The Dissertation Proposal includes both a written and oral component. Both components will be evaluated by the student's Comprehensive Examination committee. The written proposal will be submitted to the Comprehensive Examination committee and will be presented as a seminar to the Department. After the seminar, the student will defend the proposal before the Comprehensive Examination committee.

## Advancement to Candidacy

In addition to general Graduate School requirements for advancement to candidacy, students must complete the following:

1. 18 hours of non-dissertation work.

### This may not include:

CHEM 4212	Instrumental Analysis	2
CHEM 4233	Laboratory In Instrumental Analysis	2
CHEM 4302	Survey Of Physical Chemistry With Applications To The Life Scienc	3
CHEM 4343	Physical Chemistry Laboratory II	2
CHEM 4412	Advanced Inorganic Chemistry	3
CHEM 4433	Inorganic Chemistry Laboratory	2
CHEM 4712	Biochemistry	3
CHEM 4733	Biochemistry Laboratory	2
CHEM 6196	Advanced Reading In Chemistry	1
CHEM 6487	Problem Seminar In Inorganic Chemistry	1
CHEM 6687	Problem Seminar In Organic Chemistry	1-3
CHEM 6787	Problem Seminar In Biochemistry	1
CHEM 6812	Introduction To Graduate Study In Chemistry	1
CHEM 6822	Introduction To Graduate Research In Chemistry	1
CHEM 6897	Chemistry Colloquium	1

At least 9 of the 18 credits of non-dissertation coursework must be at the 5000 level. Courses in areas other than chemistry may be included with prior departmental approval.

2. Successfully pass a Comprehensive Examination.
3. Successfully present and defend a dissertation proposal.
4. Submit the proposal for approval to the Graduate School.
5. Be in good standing.

## Seminar Requirement

Students must enroll in CHEM 6897, Chemistry Colloquium, each semester they are in residence. In their final semester in the program, each student will present an "exit seminar" to the Department describing the results of their dissertation research.

## Dissertation

One copy of the dissertation must be submitted upon completion of the graduate research problem.



## Probation and Dismissal

Students are dismissed from the Ph.D. program if they fail to pass their Comprehensive Examination or otherwise fail to meet the academic and professional standards set forth by the Graduate School and the Department of Chemistry and Biochemistry.

## Master of Science in Biochemistry and Biotechnology

The Department of Chemistry and Biochemistry, in cooperation with the Department of Biology, offers a Master of Science degree in Biochemistry and Biotechnology (p. 73). Information about this degree program may be found at the Biochemistry & Biotechnology Programs Home Page. (<http://www.umsl.edu/~biotech>)

## Sample Four Year Plans

Chemistry BA (p. 115) Chemistry BS, Biochemistry Option (p. 115)  
Chemistry BS, Chemistry Option (p. 116)

### Chemistry BA

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 CHEM 1121	5
CHEM 1111	5 MATH 1800	5
MATH 1035	2 General Education	6
ENGL 1100	3	
General Education	3	
	<b>14</b>	<b>16</b>
Second Year		
Fall	Hours Spring	Hours
CHEM 2223	3 CHEM 2622	3
CHEM 2612	3 CHEM 2633	2
MATH 1900	5 MATH 2000	5
General Education	3 PHYSICS 211	5
	<b>14</b>	<b>15</b>
Third Year		
Fall	Hours Spring	Hours
CHEM 3312	3 CHEM 3322	3
PHYSICS 2112	5 CHEM 3333	2
CHEM 3022	1 Foreign Language 1001	5
CHEM 3412	2 General Education	3
ENGL 3100	3 Elective or minor	3
	<b>14</b>	<b>16</b>
Fourth Year		
Fall	Hours Spring	Hours
Foreign Language 1002	5 Foreign Language 2101	3
CHEM 3643 or 4343	2 CHEM 4897	1
General Education	3 General Education	6
Elective or minor	6 Elective or minor	6
	<b>16</b>	<b>16</b>

Total Hours: 121

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

*PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

### Chemistry BS, Biochemistry Option

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 CHEM 1121	5
CHEM 1111	5 MATH 1800	5
MATH 1035	2 General Education	6
ENGL 1100	3	
General Education	6	
	<b>17</b>	<b>16</b>
Second Year		
Fall	Hours Spring	Hours
CHEM 2223	3 CHEM 2622	3
CHEM 3412	2 CHEM 2633	2
CHEM 2612	3 MATH 2000	5
MATH 1900	5 PHYSICS 211	5
General Education	3	
	<b>16</b>	<b>15</b>
Third Year		
Fall	Hours Spring	Hours
CHEM 3312	3 PHYSICS 2112	5
CHEM 4712	3 CHEM 3322	3
CHEM 3022	1 CHEM 3333	2
BIOL 1831	5 ENGL 3100	3
CHEM 4733	2 General Education	3
	<b>14</b>	<b>16</b>
Fourth Year		
Fall	Hours Spring	Hours
CHEM 4212	2 CHEM 4233	2
CHEM 4412	3 CHEM 4772	3
CHEM 4722 or 3905 <sup>2</sup>	3 CHEM 3905	1
BIOL 3622 or 2012	3 CHEM 4897	1
General Education	3 General Education	6
Elective or minor	3	
	<b>17</b>	<b>13</b>

Total Hours: 124

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

<sup>2</sup> CHEM 3905 may be taken for one credit hour with this plan.

*PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Chemistry BS, Chemistry Option

First Year		
Fall	Hours Spring	Hours
INTDSC 1003	1 CHEM 1121	5
CHEM 1111	5 MATH 1800	5
MATH 1035	2 General Education	6
ENGL 1100	3	
General Education	6	
	<b>17</b>	<b>16</b>
Second Year		
Fall	Hours Spring	Hours
CHEM 2223	3 CHEM 2622	3
CHEM 3412	2 CHEM 2633	2
CHEM 2612	3 MATH 2000	5
MATH 1900	5 PHYSICS 211 <sup>1</sup>	5
General Education	3	
	<b>16</b>	<b>15</b>
Third Year		
Fall	Hours Spring	Hours
CHEM 3312	3 PHYSICS 2112	5
CHEM 4712	3 CHEM 3322	3
CHEM 3022	1 CHEM 3333	2
ENGL 3100	3 General Education	6
General Education	3	
Elective or minor	3	
	<b>16</b>	<b>16</b>
Fourth Year		
Fall	Hours Spring	Hours
CHEM 3643	2 CHEM 3905	1
CHEM 4212	2 CHEM 4233	2
CHEM 4343	2 CHEM 4433	2
CHEM 4412	3 CHEM 4897	1
CHEM 3905	1 Elective or minor	6
Elective or minor	3	
	<b>13</b>	<b>12</b>

Total Hours: 121

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

*PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Courses

### **CHEM 1011 Chemistry In The Environment And Every Day Living: 3 semester hours**

This course examines the role of chemistry in everyday life and in the environment, and is intended for students not pursuing scientific or engineering majors. Chemical principles are introduced to the extent necessary for understanding of issues, but this course does not provide the basis for further technical courses. Two hours of lecture per week; on alternate weeks, one hour of discussion or two hours of laboratory.

### **CHEM 1052 Chemistry For The Health Professions: 4 semester hours**

An introduction to general, nuclear, structural organic, organic reactions and biochemistry. This course is designed primarily for students in nursing and related health professions, and should not be taken by students majoring in the physical or biological sciences. Chemistry majors may include neither CHEM 1052 or CHEM 1062 in the 120 hours required for graduation. Four hours of lecture per week.

### **CHEM 1062 Organic & Biochem For The Health Professions: 2 semester hours**

Prerequisites: Any college Chemistry course An introduction to organic reactions and biochemistry. CHEM 1062 is offered during the second half of the semester. Four hours of lecture per week.

### **CHEM 1081 Introductory Chemistry I-A: 3 semester hours**

Prerequisites: MATH 1030 (or a score of 26 or higher on either the Math ACT or the Math Placement Test). This course is designed for students who want to have an in depth understanding of introductory concepts in Chemistry. CHEM 1081 covers the topics taught in the first half of CHEM 1111 but at a slower pace, thus allowing students time to fully integrate the concepts and thereby build a stronger foundation for their subsequent Chemistry courses. CHEM 1081 consists of the first half of CHEM 1111 (excluding laboratory experiments), whereas CHEM 1091 covers all the laboratory experiments and second half of lecture part of CHEM 1111. Three hours of lecture or workshop per week.

### **CHEM 1091 Introductory Chemistry IB: 3 semester hours**

Prerequisites: CHEM 1081 and MATH 1035 (MATH 1035 may be taken concurrently). CHEM 1091 is the completion of CHEM 1111 for students who have completed CHEM 1081. The laboratory portion of this course will start at the beginning of the semester. The lecture part of the course starts in mid-semester and students join an ongoing CHEM 1111 class. Students who completed CHEM 1081 must complete CHEM 1091 to be considered as having completed the equivalent of CHEM 1111. Three hours of lecture and one and one half hours of workshop during the second half of the semester, and three hours of laboratory per week during the entire semester.

### **CHEM 1111 Introductory Chemistry I: 5 semester hours**

Prerequisite: MATH 1030 (or a score of 26 or higher on either the Math ACT or the Missouri Math Placement Test) and MATH 1035 (MATH 1035 may be taken concurrently). Presents an introduction to the fundamental laws and theories of chemistry. Laboratory experiments are designed to demonstrate some aspects of qualitative and quantitative analysis and to develop skills in laboratory procedures. Chemistry majors may not include both CHEM 1011 and CHEM 1111 in the 120 hours required for graduation. Three hours of lecture, one and one-half hours of workshop, and three hours of laboratory per week.

### **CHEM 1121 Introductory Chemistry II: 5 semester hours**

Prerequisite: CHEM 1111 or advanced placement. Lecture and laboratory are a continuation of CHEM 1111. Three hours of lecture, one and one-half hours of workshop and three hours laboratory per week.

### **CHEM 1134 Special Topics In Introductory Chemistry: 1-5 semester hours**

Prerequisite: Consent of instructor. A lecture and/or laboratory course to assist transfer students to complete the equivalent of CHEM 1111 and CHEM 1121. Students enrolling in this course should contact the instructor prior to the first day of class for guidelines on course requirements, to choose a lab or workshop section, and to request enrollment in the course website.

**CHEM 2223 Quantitative Analysis: 3 semester hours**

Prerequisites: CHEM 1121 Principles and practice of elementary quantitative chemistry. The lecture treats descriptive statistics with emphasis on small samples; various types of competing equilibria pertaining to acid-base, complexometric, and potentiometric titrations; and an introduction to spectrophotometric processes. The laboratory provides exercises in titrimetric gravimetric, and spectrophotometric techniques. Both portions of the course deal with the analytical chemistry of environmentally-significant problems. Two hours of lecture and four and one-half hours of laboratory weekly.

**CHEM 2612 Organic Chemistry I: 3 semester hours**

Prerequisite: CHEM 1121 (may be taken concurrently). An introduction to the structure, properties, synthesis, and reactions of aliphatic and aromatic carbon compounds. Three hours of lecture per week.

**CHEM 2622 Organic Chemistry II: 3 semester hours**

Prerequisite: CHEM 2612. A systematic study of organic reactions and their mechanisms; organic synthetic methods. Three hours of lecture per week.

**CHEM 2633 Organic Chemistry Laboratory: 2 semester hours**

Prerequisite: CHEM 2612 An introduction to laboratory techniques and procedures of synthetic organic chemistry including analysis of organic compounds. One hour of lecture and four and one-half hours of laboratory per week.

**CHEM 3022 Introduction To Chemical Literature: 1 semester hour**

Prerequisites: CHEM 2622 (2622 may be taken concurrently) and CHEM 3412. This course will familiarize the student with the literature of chemistry and its use. One hour of lecture per week.

**CHEM 3302 Physical Chemistry For The Life Sciences: 3 semester hours**

Prerequisites: CHEM 2612 and MATH 1800 or MATH 1100, and PHYSICS 1012 Principles and applications of physical chemistry appropriate to students pursuing degree programs in the life sciences. Topics will include thermodynamics, equilibria, kinetics, and spectroscopy. This course is intended for undergraduates seeking the B.S. degree in Biochemistry and Biotechnology and does not fulfill the physical chemistry required for other Chemistry B.A. and B.S. degree programs.

**CHEM 3312 Physical Chemistry I: 3 semester hours**

Prerequisites: CHEM 1121 and MATH 2000 (MATH 2000 may be taken concurrently), and PHYSICS 2111. Principles of physical chemistry, including thermodynamics, theory of gases, phase equilibria, kinetics, crystal structure, spectroscopy, and quantum mechanics. Three hours per week.

**CHEM 3322 Physical Chemistry II: 3 semester hours**

Prerequisite: CHEM 3312 and MATH 2000. Continuation of CHEM 3312. Three hours lecture per week.

**CHEM 3333 Physical Chemistry Laboratory I: 2 semester hours**

Prerequisites: CHEM 2223 and CHEM 3312 Experiments designed to illustrate principles introduced in CHEM 3312. One hour of lecture and four and one-half hours of laboratory per week.

**CHEM 3412 Basic Inorganic Chemistry: 2 semester hours**

Prerequisite: CHEM 1121. This course reviews the principles of atomic structure and studies covalent and ionic bonding. Topics include properties of the elements and synthesis, reactions and bonding aspects of important main group and transition metal compounds. Two hours lecture per week.

**CHEM 3643 Advanced Organic Chemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 3022 Identification of organic compounds by classical and spectroscopic methods; advanced techniques in synthesis and separation of organic compounds. One hour of lecture and four and one-half hours of laboratory per week. Not for graduate credit.

**CHEM 3905 Chemical Research: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent laboratory and library study, in conjunction with faculty member, of fundamental problems in chemistry. A written report describing the research is required.

**CHEM 4212 Instrumental Analysis: 2 semester hours**

Prerequisites: CHEM 3322 Principles and applications of modern methods of instrumental analysis for analytical chemistry measurements. Topics will be selected from the areas of electrochemistry, absorption and emission spectroscopy, chromatography, mass spectrometry, surface analysis, and nuclear magnetic resonance. Two hours of lecture per week.

**CHEM 4233 Laboratory In Instrumental Analysis: 2 semester hours**

Prerequisites: CHEM 4212, CHEM 3333 Experiments designed to illustrate the principles and practices of instrumental analysis, involving the use of modern instrumentation in analytical chemistry applications. One hour of discussion and four and one-half hours of laboratory per week.

**CHEM 4302 Survey Of Physical Chemistry With Applications To The Life Sciences: 3 semester hours**

Prerequisites: CHEM 2612 and MATH 1800 or MATH 1100, and PHYSICS 1012. Principles of physical chemistry with applications to the life sciences. Topics will include thermodynamics, equilibria, kinetics, and spectroscopy. This course will be taught simultaneously with CHEM 3302, but students in CHEM 4302 will have additional assignments or projects. No student may receive credit for both CHEM 3302 and CHEM 4302.

**CHEM 4343 Physical Chemistry Laboratory II: 2 semester hours**

Prerequisites: CHEM 3322 (may be taken concurrently) and CHEM 3333. Experiments designed to illustrate principles introduced in CHEM 2322. One hour of lecture and four and one-half hours of laboratory per week. Not for graduate credit.

**CHEM 4412 Advanced Inorganic Chemistry: 3 semester hours**

Prerequisites: CHEM 3322 (may be taken concurrently), CHEM 3412, and CHEM 2622 An introduction to the chemistry of the elements, including atomic and molecular structure, acids and bases, the chemistry of the solid state, and main group and transition metal chemistry. Three hours of lecture per week.

**CHEM 4433 Inorganic Chemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 3333, CHEM 3643, and CHEM 4412 (CHEM 3643 may be taken concurrently) The more sophisticated techniques of physical and analytical chemistry will be used to study inorganic compounds and their reactions. One hour of lecture and four and one-half hours of laboratory per week. Not for graduate credit.

**CHEM 4652 Spectroscopic Identification Of Organic Compounds: 3 semester hours**

Prerequisites: CHEM 3643 An applied approach to the use of spectroscopic techniques in organic chemistry. Topics to include integrated applications of infrared and Raman spectroscopy, nuclear magnetic resonance ( $^{13}\text{C}$  and  $^1\text{H}$ , cw and pulsed) and mass spectroscopy for the purpose of elucidating the structure of organic compounds. Three hours of lecture per week.

**CHEM 4712 Biochemistry: 3 semester hours**

Same as BIOL 4712. Prerequisites: CHEM 2612 and either BIOL 1831 or CHEM 2622. Examines the chemistry and function of cell constituents, and the interaction and conversions of intracellular substances. Students may not receive credit for both BIOL 4712 and CHEM 4712.

**CHEM 4722 Advanced Biochemistry: 3 semester hours**

Prerequisite: CHEM 4712. Selected advanced topics in the chemistry of life processes. Three hours lecture per week.

**CHEM 4733 Biochemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 4712 (may be taken concurrently), and CHEM 2223. Laboratory study of biochemical processes in cellular and subcellular systems with emphasis on the isolation and purification of proteins (enzymes) and the characterization of catalytic properties. One hour of lecture and four and one-half hours of laboratory per week.

**CHEM 4772 Physical Biochemistry: 3 semester hours**

Prerequisites: CHEM 3312 or CHEM 4712/ BIOL 4712 Designed to acquaint students with concepts and methods in biophysical chemistry. Topics that will be discussed include protein and DNA structures, forces involved in protein folding and conformational stability, protein-DNA interactions, methods for characterization and separation of macromolecules, electron transfer, and biological spectroscopy. Three hours of lecture per week.

**CHEM 4797 Biochemistry and Biotechnology Seminar: 1 semester hour**

Same as BIOL 4797. Prerequisites: Senior standing in the Biochemistry and Biotechnology program. This course will focus on selected publications related to biochemistry and biotechnology from both refereed journals and news sources. Students are expected to participate in discussions and to prepare oral and written presentations. Completion of the Major Field Achievement Test in Biochemistry & Biotechnology is a course requirement. May not be taken for graduate credit.

**CHEM 4814 Special Topics In Chemistry: 1-10 semester hours**

A reading and seminar course in selected advanced topics.

**CHEM 4897 Seminar: 1 semester hour**

Prerequisites: CHEM 3022 and senior standing Presentation of papers by students, faculty, and invited speakers. Chemistry majors must enroll during the semester in which they intend to graduate. Completion of a comprehensive examination during one of the semesters is a course requirement One hour of lecture and one hour of discussion per week.

**CHEM 5394 Special Topics In Physical Chemistry: 1-10 semester hours**

Prerequisite: Consent of instructor. Selected topics in physical chemistry; may be taken more than once for credit.

**CHEM 5396 Directed Readings in Physical Chemistry: 1-3 semester hours**

Prerequisites: Consent of Physical Chemistry Faculty. A series of readings of monographs, review papers, and/or research publications for a particular student directed at providing that student with appropriate background preparation for experimental or theoretical Ph.D.-level research in an area of physical chemistry. The particular readings will be selected by the physical chemistry staff. Potential topics include but are not limited to advances in Electrochemistry, Surface Chemistry, Thermodynamics, Molecular Spectroscopy, Quantitative Absorption Spectroscopy using new Methodologies, Applications of Group Theory in Spectroscopy, and Computational Chemistry. Assessment may be in various forms including by assignments and seminars. Students may take this course more than once for credit through the particular topic must be different in each case.

**CHEM 5422 Coordination Chemistry: 3 semester hours**

Prerequisite: CHEM 4412 or an equivalent course. Chemistry of the coordination compounds of the transition metals including such topics as kinetics and mechanisms of reaction, stereochemistry, ligand field theory, stability and electronic spectra. Three hours of lecture per week.

**CHEM 5462 Organometallic Chemistry Of The Transition Elements: 3 semester hours**

Prerequisites: CHEM 4412 or an equivalent course. A study of transition metal compounds containing metal-carbon bonds and related metal-element bonds, including their synthesis, structure and bonding, and reactions. Applications in organic synthesis and catalysis will also be presented. Three hours of lecture per week.

**CHEM 5494 Special Topics In Inorganic Chemistry: 1-3 semester hours**

Prerequisite: Consent of instructor. Selected topics in inorganic chemistry; may be taken more than once for credit.

**CHEM 5602 Advanced Organic Chemistry I - Physical Organic: 3 semester hours**

Prerequisites: CHEM 2622 and CHEM 3322 Mechanism and theory of organic chemistry. Topics to include kinetics, transition state theory, reaction intermediates, and stereochemical analysis. Three hours of lecture per week.

**CHEM 5612 Advanced Organic Chemistry II - Reactions And Synthesis: 3 semester hours**

Prerequisite: CHEM 2622 This course will examine a variety of organic transformations typically utilized in organic synthesis. Topics will include carbon-carbon bond formation, pericyclic reactions, oxidation, reduction, and functional group interconversions. Mechanism and stereochemistry will be emphasized. Three hours of lecture per week.

**CHEM 5694 Special Topics In Organic Chemistry: 3 semester hours**

Prerequisite: Consent of Instructor Advanced topics of special current interest. May be taken more than once for credit. Topics that may be offered include: Methods in Organic Synthesis, Organometallics in Organic Synthesis, Topics in Bioorganic Chemistry, Organic thermochemistry, Natural Products Chemistry, Stereochemistry, Photochemistry, Heterocyclic Chemistry, Medicinal Chemistry.

**CHEM 5774 Bioinformatics: 3 semester hours**

Prerequisites: CHEM 4712 or equivalent. This course introduces modern approaches in bioinformatics and computational biochemistry. Topics to be covered include a survey of biological databases, predictions from protein and DNA sequences, sequence alignment and sequence database searches, building phylogenetic trees, three-dimensional protein structure prediction, and molecular modeling and simulation.

**CHEM 5794 Special Topics In Biochemistry: 3 semester hours**

Prerequisites: Consent of instructor Selected topics in biochemistry. May be taken more than once for credit.

**CHEM 5798 Practicum in Science in Business: 1-2 semester hours**

Same As BIOL 5798. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis in Chemistry, Biochemistry & Biotechnology, or Biology. Students will integrate and apply their scientific expertise to a practical, business-related problem. The course will emphasize interdisciplinary team-work as well as both written and oral communication skills.



**CHEM 5799 Internship in Science in Business: 1-2 semester hours**

Same As BIOL 5799. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis area in Chemistry, Biochemistry & Biotechnology, or Biology. The internship will consist of period of on-the-job training at a local company. Credit hours will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the course instructor. Internship assignments will be commensurate with the education and experience of the student, with an emphasis on work at the interface between the scientific and business components of the company. A written report describing the internship project is required.

**CHEM 6196 Advanced Reading In Chemistry: 1 semester hour**

Prerequisite: Admission to the Ph.D. program. Reading and examinations in the sub-disciplines of chemistry. Enrollment must begin after completion of any course deficiencies.

**CHEM 6487 Problem Seminar In Inorganic Chemistry: 1 semester hour**

Prerequisite: Consent of the inorganic chemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. Ph.D. students may take more than once for credit. Up to three credits may be applied to the M.S. degree program.

**CHEM 6687 Problem Seminar In Organic Chemistry: 1-3 semester hours**

Prerequisite: Consent of the organic chemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. PH.D. Students may take more than once for credit. Up to three credits may be applied to the M.S. degree programs.

**CHEM 6787 Problem Seminar In Biochemistry: 1 semester hour**

Prerequisite: Consent of the biochemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. Ph.D. students may take more than once for credit. Up to three credits may be applied to the M.S. degree program.

**CHEM 6812 Introduction To Graduate Study In Chemistry: 1 semester hour**

Prerequisite: Consent of Graduate Advisor. Topics to be covered include: techniques of teaching of chemistry in colleges and universities, methods of instruction and evaluation; role and responsibilities of the Graduate Teaching Assistant in laboratory instruction; safety in the undergraduate laboratory, safety practices, emergency procedures; selection of a research project and thesis advisor.

**CHEM 6822 Introduction To Graduate Research In Chemistry: 1 semester hour**

Prerequisite: Consent of instructor. Topics to include: safety in the research laboratory, safety practices, emergency procedures, hazardous materials, waste disposal, radiation safety; research ethics, chemistry information retrieval, computer assisted information retrieval, types of databases, searching bibliographic data bases.

**CHEM 6832 Strategies for Independent Research Proposal Development: 1 semester hour**

Prerequisites: CHEM 6822 and Consent of Graduate Advisor. Topics include: strategies for identification of research topics in chemistry and biochemistry, techniques for database literature search, critical analysis of existing research knowledge, introduction to standard grant proposal formats, technical aspects in preparation of a research plan and accompanying sections, use of bibliographical software, and overview and practice of the peer review process.

**CHEM 6897 Chemistry Colloquium: 1 semester hour**

Presentation of papers by students, faculty and invited speakers. One hour per week.

**CHEM 6905 Graduate Research In Chemistry: 1-10 semester hours**

## Criminology and Criminal Justice

### General Information

#### Degrees and Areas of Concentration

The department offers courses leading to the Bachelor of Science, the Master of Arts, and Ph.D. in criminology and criminal justice.

#### Cooperative Programs

Faculty members in the criminology and criminal justice department hold appointments as fellows in the Center for International Studies and the Women's and Gender Studies Program. Workshops, projects, credit courses, and other social services are brought to the criminal justice community.

#### Internships

Majors are strongly encouraged to participate in CRIMIN 3280 Internship in Criminology and Criminal Justice, during their junior or senior year. The internship affords students the opportunity to gain experience in a criminal justice agency under the joint supervision of agency personnel and criminology and criminal justice faculty.

#### Minor in Criminology and Criminal Justice

The minor gives recognition to those students from other major areas who find that criminology and criminal justice courses fit their academic or professional needs and/or interests.

#### Chair's List

Each year, faculty members nominate undergraduates who have done outstanding work in one or more of their courses to the department's Chair's List. In addition to being nominated by a faculty member, the student must meet a cumulative grade-point average threshold for placement on the Chair's List. The list is featured on the department's website, and the Dean of Arts and Sciences is notified of their accomplishment.

#### Career Outlook

The orientation of the criminology and criminal justice faculty and of the degree program prepares the graduate to work professionally for local, state, and federal agencies concerned with maintaining public safety by the prevention of crime and apprehension and rehabilitation of offenders. The B.S. in criminology and criminal justice is also advantageous for careers with various social agencies, especially those connected with the juvenile court system, probation and parole, and local police. Many students use the B.S. in criminology and criminal justice as preparation for law school.

The interdisciplinary curricula unify a body of knowledge from criminology, social science, law, public administration, and corrections, and provide the student with an understanding of the assumptions, values, and processes of the system of justice. Many prelaw students choose criminology and criminal justice as an undergraduate major because of the excellent preparation offered for law school. An internship program is offered for college credit. The liaison, supervision, and experience with public

agencies that form an integral part of this program help the student arrive at a career decision.

## Undergraduate Studies

### General Education Requirements

Majors must satisfy the university and college general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>). Courses used to fulfill the social science or state requirement may not be taken from courses in the major. Foreign language proficiency is not required, although students are encouraged to take foreign language courses. Majors may not take the following courses on a satisfactory/unsatisfactory basis: criminology and criminal justice courses; SOC 3220, Quantitative Techniques in Sociology; or SOC 3230, Research Methods. Additionally, substitutions approved by departmental advisers for these courses may not be taken on a satisfactory/unsatisfactory basis.

### Degree Requirements

Courses used to fulfill the social science or state requirements may not be taken from courses in the major. Students may register for 3000-5000 level courses only after completing ENGL 3100 (Advanced Expository Writing).

Students may register for 3000-5000 level courses only after prerequisites have been satisfied or after obtaining a signature from the adviser in criminology and criminal justice or consent of the instructor.

Criminology majors may not take course numbers 1100, 2260, or 3345 offered through UM-Independent Studies to fulfill degree requirements in the major.

### Expected Learning Outcomes

- Acquire basic knowledge of the theories, methods and substance of issues in criminology and criminal justice.
- Develop critical thinking skills through the application of criminological theory and social science research methods.
- Develop fundamental understanding of interdisciplinary underpinnings (e.g., from sociology, psychology, political science, economics) of criminology and criminal justice issues and policies.
- Acquire knowledge about the structure and functioning of the fundamental institutions (e.g., legislatures, police, punishment, supervisory) that are part of criminal justice systems.
- Acquire understanding of the role of research and its application for informing policies about criminal justice issues.

### Core Curriculum

Bachelor of Science in Criminology and Criminal Justice candidates must complete the core curriculum listed below:

#### Core Curriculum

The following courses in criminology and criminal justice are required: 22

CRIMIN 1100	Introduction To Criminology And Criminal Justice
CRIMIN 1110	Theories Of Crime
CRIMIN 1120	Criminal Law
CRIMIN 2130	Criminal Justice Policy
CRIMIN 2210	Research Methods In Criminology And Criminal Justice
CRIMIN 2220	Statistical Analysis In Criminology And Criminal Justice

CRIMIN 4390	Seminar In Criminology And Criminal Justice	3
Select one of the following:		

CRIMIN 2240	Policing	
CRIMIN 2250	Courts	
CRIMIN 2260	Corrections	

Select one of the following courses in Criminology and Criminal Justice:			3
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CRIMIN 3305	Comparative Criminology and Criminal Justice	
CRIMIN 4325	Gender, Crime, And Justice	
CRIMIN 4330	Violence Against Women	
CRIMIN 4340	Race, Crime, And Justice	

Select three additional courses at the 3000, 4000, or 5000 level:			9
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CRIMIN 3043	History Of Crime And Justice	
CRIMIN 3230	Crime Prevention	
CRIMIN 3270	Juvenile Justice And Delinquency	
CRIMIN 3305	Comparative Criminology and Criminal Justice	
CRIMIN 3310	Computers In Criminal Justice	
CRIMIN 3320	The Death Penalty	
CRIMIN 3330	White Collar Crime	
CRIMIN 3345	Rights Of The Offender	
CRIMIN 4300	Communities And Crime	
CRIMIN 4320	Forms Of Criminal Behavior	
CRIMIN 4325	Gender, Crime, And Justice	
CRIMIN 4330	Violence Against Women	
CRIMIN 4335	Probation And Parole	
CRIMIN 4340	Race, Crime, And Justice	
CRIMIN 4350	Victimology	
CRIMIN 4380	Special Topics In Criminology And Criminal Justice	

#### Elective Courses

CRIMIN 1150	Violence In America	3
CRIMIN 2180	Alcohol, Drugs And Society	3
CRIMIN 2251	Youth Gangs	3
CRIMIN 3280	Internship In Criminology And Criminal Justice	3
CRIMIN 3290	Special Readings	1-6

Total Hours	50-55
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Candidates must earn a minimum grade of (C-) in the following courses: CRIMIN 2220 Statistical Analysis in Criminology and Criminal Justice, and CRIMIN 4390 Seminar in Criminology and Criminal Justice.

Candidates must also have a cumulative grade point average of 2.0 or better in the major.

### Requirements for the Minor

The minor has been designed to ground students in the basics of criminology and criminal justice.

All minor candidates must take:	3
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CRIMIN 1100	Introduction To Criminology And Criminal Justice (p. 119)	3
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The candidate must then select two of the following:	6
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CRIMIN 1110	Theories Of Crime (p. 119)	
CRIMIN 1120	Criminal Law (p. 119)	

CRIMIN 2130 Criminal Justice Policy (p. 119)	
Candidates must then complete 6 hours of criminology and criminal justice course work at the 2000 level or above.	6
Total Hours	15

If used for the minor, candidates must earn a minimum grade of (C-) in the following courses: CRIMIN 2220 (p. 119) Statistical Analysis in Criminology and Criminal Justice, and CRIMIN 4390 (p. 119) Seminar in Criminology and Criminal Justice

Candidates must also have a cumulative grade point average of 2.0 or better in the minor. None of the courses may be taken on a satisfactory/unsatisfactory (s/u) basis.

## Graduate Studies

### Master of Arts in Criminology and Criminal Justice

The department offers a Master of Arts degree in Criminology and Criminal Justice, which provides students with advanced theoretical and methodological training for research and management careers in criminal justice.

#### Admission Requirements

The minimum GPA for regular admission to graduate study is 3.0 on a 4-point scale and students are expected to begin their course of study in the Fall semester. Admission is competitive.

#### Degree Requirements

The M.A. in Criminology and Criminal Justice requires the completion of 33 credit hours, at least 21 of which are required to be in courses housed in the Department of Criminology and Criminal Justice. 12 of these hours represent the core of the curriculum. Students may choose between a thesis and nonthesis course of study. Students whose cumulative GPAs fall below 3.0 after 9 or more hours of work will be placed on probation and given one semester to raise their cumulative GPAs to at least the 3.0 threshold.

#### Expected Learning Outcomes

- Develop a comprehensive understanding of the theories, methods and substance of issues in criminology and criminal justice and demonstrate an ability to synthesize knowledge in these areas.
- Develop a comprehensive understanding of interdisciplinary underpinnings (e.g., from sociology, psychology, political science, economics) of criminology and criminal justice issues and policies.
- Develop critical thinking and communication skills through the application of criminological theory and social science research methods.
- Develop a comprehensive understanding of the structure and functioning of the fundamental institutions (e.g., legislatures, police, punishment, supervisory) that are part of criminal justice systems.
- Develop comprehensive understanding of the role of research and its application for informing policies about criminal justice issues.

#### Plan of Study

- Required Coursework (12 hours)
- CRIMIN 5415 (p. Foundations Of Criminological Theory (core) 119) 3

CRIMIN 6400 (p. Proseminar (core) 119)	3
CRIMIN 6405 (p. Methods (core) 119)	3
CRIMIN 6410 (p. Statistical Applications In Criminology And Criminal Justice (core) 119)	3

- Three additional Criminology and Criminal Justice seminars at the 6000 level (9; non-core)
- Electives (12 hours)  
Twelve elective hours of coursework are required; some or all of these credits may be earned in Criminology and Criminal Justice 6000 level seminars not counted toward the 21 hour requirement. Students may take a maximum of two 4000-level courses in partial fulfillment of this requirement but they must have the prior approval of the Graduate Committee. All electives taken outside the College of Arts and Sciences also must receive prior approval of the Graduate Committee.

#### Transfer Courses

Transfer courses are evaluated for acceptance on a case-by-case basis subject to the rules and regulations of the Graduate School. A maximum of 11 credit hours earned at other institutions can be credited toward the UMSL M.A. degree in Criminology and Criminal Justice.

### Ph.D. Program in Criminology and Criminal Justice

#### Eligibility

Undergraduate applicants must have a baccalaureate degree or expect one by the end of the academic year in which they apply. Applicants must have a grade point average of 3.0 or greater (on a scale of A = 4.0) for the last 60 hours of undergraduate work. Admission is competitive.

Graduate applicants who have or will have a master's degree must have a grade point average of 3.0 or greater (on a scale of A = 4.0) for their graduate course work.

#### Application

To consider an applicant for admission, the Department of Criminology and Criminal Justice must have transcripts, three letters of recommendations, GRE scores and a writing sample. Applicants with master's degrees should include a chapter of their thesis. International students whose native language is not English are required to submit scores from the TOEFL examination.

#### Amount of Course Work

Sixty post-baccalaureate hours of graduate work are required for the Ph.D. More than half of these hours must be completed in residence. Twelve credit hours of dissertation research (CRIMIN 7499 (p. 119)) are required. Students may enroll for dissertation credits (CRIMIN 7499 (p. 119)) only when all other degree requirements have been completed.

Required courses for the Ph.D. are:	33
CRIMIN 5415 Foundations Of Criminological Theory (p. 119)	
CRIMIN 6400 Proseminar (p. 119)	
CRIMIN 6405 Methods (p. 119)	

CRIMIN 6410	Statistical Applications In Criminology And Criminal Justice	(p. 119)
CRIMIN 6420	Contemporary Criminal Theories	(p. 119)
CRIMIN 6440	Nature Of Crime	(p. 119)
CRIMIN 6450	Criminal Justice Process And Policy	(p. 119)
CRIMIN 6465	Qualitative Research Design	(p. 119)
CRIMIN 6470	Quantitative Research Design	(p. 119)
CRIMIN 6471	Evaluating Criminal Justice Interventions	(p. 119)
CRIMIN 6480	Multivariate Statistics In Criminology	(p. 119)
Students are also required to select three of the following:		9
CRIMIN 5533	Philosophy Of Law	(p. 119)
CRIMIN 6441	Juvenile Delinquency	(p. 119)
CRIMIN 6442	Communities And Crime	(p. 119)
CRIMIN 6443	Violent Crime	(p. 119)
CRIMIN 6445	Property Crime	(p. 119)
CRIMIN 6446	Sex Crime	(p. 119)
CRIMIN 6448	Victimization	(p. 119)
CRIMIN 6452	The Police	(p. 119)
CRIMIN 6454	Corrections	(p. 119)
<b>Total Hours</b>		<b>42</b>

Additional courses beyond the above requirements are taken as elective courses. These courses may be at the 5000 level. Students are also encouraged to take courses outside the Department of Criminology and Criminal Justice.

### Qualifying Examination

Graduate students in the Ph.D. program do not become recognized as Ph.D. candidates until they have passed the qualifying examination. The goals of the comprehensive examination are to assess the student's familiarity with substantive literature, theory and methods of criminology and criminal justice and to evaluate the student's intellectual imagination and ability to apply knowledge to broad criminological questions.

Further information about the qualifying exam is available from the department.

### The Dissertation

The dissertation is required of all Ph.D. candidates and demonstrates the student's scholarly expertise. The dissertation process formally begins when all other requirements of the Ph.D. program have been met. The

dissertation committee assists in selecting and developing the research problem and evaluates the student's work on that problem.

## Sample Four Year Plan

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 General Education	9
CRIMIN 1100	3 CRIMIN 1110	3
General Education <sup>2</sup>	6 CRIMIN 1120	3
ENGL 1100	3	
MATH 1020	3	
	<b>16</b>	<b>15</b>
Second Year		
Fall	Hours Spring	Hours
CRIMIN 2210	3 CRIMIN 2220	4
General Education	9 CRIMIN 2240, 2250, or 2260	3
CRIMIN 2130	3 General Education	6
	<b>15</b>	<b>13</b>
Third Year		
Fall	Hours Spring	Hours
ENGL 3100	3 CRIMIN 3280	3
CRIMIN 2000+ elective	3 CRIMIN 2000+ level elective	3
General Education	6 CRIMIN 3000-4000 level course	3
Elective or minor	3 General Education	3
	Elective or minor	3
	<b>15</b>	<b>15</b>
Fourth Year		
Fall	Hours Spring	Hours
CRIMIN 3305, 4325, or 4340	3 CRIMIN 4390	3
CRIMIN 3000-4000 level course	3 CRIMIN 3000-4000 level course	3
CRIMIN 2000+ level elective	6 CRIMIN elective	6
Elective or minor	3 Elective or minor	3
	<b>15</b>	<b>15</b>
<b>Total Hours: 119</b>		

1 INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

2 The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science or Humanities general education course.

*PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*



## Courses

### **CRIMIN 1100 Introduction To Criminology And Criminal Justice: 3 semester hours**

Introduction to the basic concepts and approaches in the study of criminology and criminal justice. The major components of the criminal justice system are examined.

### **CRIMIN 1110 Theories Of Crime: 3 semester hours**

Prerequisite: CRIMIN 1100 Introduction to major theoretical approaches to the study of crime and justice.

### **CRIMIN 1120 Criminal Law: 3 semester hours**

Prerequisite: CRIMIN 1100. Analysis of substantive criminal law, evidence and judicial procedure.

### **CRIMIN 1150 Violence In America: 3 semester hours**

Prerequisites: CRIMIN 1100 or consent of instructor. Overview of patterns and correlates of violence in America. Emphasis on the variety of forms of violent crimes, such as murder, assault, robbery, rape, and gang violence. Includes an examination of violence as a response to lawbreaking.

### **CRIMIN 1200 Foundations Of Law: An Introduction To Legal Studies: 3 semester hours**

Same as POL SCI 1200. As a broad liberal-arts approach to the study of law, this course is designed to familiarize students with legal ideas, legal reasoning, and legal processes. It also provides comparative and historical perspectives on law that will help explain legal diversity and legal change. Finally, it offers opportunities to explore some of the persistent issues in law and legal theory: for example, issues about the sources of law, the responsibilities of the legal profession, or the relative merits of the adversary system.

### **CRIMIN 2130 Criminal Justice Policy: 3 semester hours**

Prerequisite: CRIMIN 1100 Introduction to criminal justice policy making, planning and implementation.

### **CRIMIN 2180 Alcohol, Drugs And Society: 3 semester hours**

Same as SOC 2180. Prerequisite: SOC 1010 or PSYCH 1003. This course examines the medical, legal and social aspects of alcohol and drug use. Medical aspects considered include treatment approaches and the role of Physicians in controlling such behavior. In the legal realm, past and present alcohol and drug laws are explored. Cultural and social influences on alcohol and drug use are discussed.

### **CRIMIN 2210 Research Methods In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: CRIMIN 1100. Examination of basic methods of research design, measurement and data collection in criminology and criminal justice.

### **CRIMIN 2220 Statistical Analysis In Criminology And Criminal Justice: 4 semester hours**

Prerequisites: CRIMIN 2210 and the university math proficiency requirement. An introduction to techniques of quantitative data analysis. Both descriptive and inferential statistics are applied to problems in criminology and criminal justice. Includes a one hour lab. Courses with a CRIMIN 2220 prerequisite require a minimum grade of "C" to be earned by the student in this course.

### **CRIMIN 2240 Policing: 3 semester hours**

Prerequisite: CRIMIN 1100 Overview of current and historical perspectives on the function of American policing. Emphasis on the management of police organizations and relationships with the community.

### **CRIMIN 2250 Courts: 3 semester hours**

Prerequisite: CRIMIN 1100. This course provides an overview of current and historical perspectives on the function of the American courts. Emphasis on the dynamics of courthouse justice, with special attention placed on the roles of the prosecutors, judges, defense attorneys, defendants, victims, and jurors regarding the decisions that impact the adjudication process.

### **CRIMIN 2251 Youth Gangs: 3 semester hours**

Prerequisites: CRIMIN 1100 or consent of instructor. This course provides an overview of research and policy concerning youth gangs. Definitional and methodological issues will be examined, along with both qualitative and quantitative research. Topics include: the causes of gangs and gang involvement; and variations by race, gender, time period, and geography.

### **CRIMIN 2252 Philosophical Foundations Of Criminal Justice: 3 semester hours**

### **CRIMIN 2260 Corrections: 3 semester hours**

Prerequisite: CRIMIN 1100. Examination of correctional philosophies and practices. Emphasis on the history of corrections, the formal and informal organization of correctional facilities, inmate rights, and correctional alternatives.

### **CRIMIN 3043 History Of Crime And Justice: 3 semester hours**

Same as HIST 3043. Prerequisites: Junior standing or consent of instructor. The analysis development, and change in philosophies and responses to crime. Emphasis on major forms and definitions of crime, the emergence of modern policing, the birth of the prison and the juvenile court.

### **CRIMIN 3209 Forensic Anthropology: 4 semester hours**

Same as ANTHRO 3209. Prerequisites: ANTHRO 1005 or BIOL 1102 or consent of instructor. Students learn basic human dental and skeletal anatomy and the methods used by biological anthropologists and archaeologists to collect and analyze human skeletal remains, including how to age and sex skeletal remains, identify ethnic markers, determine stature and handedness, and identify the presence of trauma and/or pathology. Also covers the role of the forensic anthropologist in crime scene investigations and human rights issues. In the weekly lab section students will have an opportunity for hands-on application of techniques to skeletal remains.

### **CRIMIN 3230 Crime Prevention: 3 semester hours**

Prerequisites: Junior standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Examination of situational, social, and legislative approaches to the prevention of crime and delinquency. Emphasis on theories, implementation, and consequences of these approaches.

### **CRIMIN 3270 Juvenile Justice And Delinquency: 3 semester hours**

Prerequisite: Junior Standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Examination of formal and informal responses to juvenile delinquency. Emphasis on theories of delinquency and the decision-making processes of police, court and probation officials.

### **CRIMIN 3280 Internship In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: Junior standing. Internship under faculty supervision in criminal justice setting. May be repeated for one credit.

### **CRIMIN 3290 Special Readings: 1-6 semester hours**

Prerequisite: Consent of instructor. Individualized study, under regular faculty supervision, designed to meet particular educational needs of selected students.

**CRIMIN 3305 Comparative Criminology and Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Analysis of crime and criminal justice systems in selected cultures. Emphasis on the ways in which these cultures define and respond to criminal behavior. Fulfills CRIMIN diversity requirement.

**CRIMIN 3310 Computers In Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Use of computers, data base systems, and software applications in research and professional practice.

**CRIMIN 3320 The Death Penalty: 3 semester hours**

Prerequisite: CRIMIN 1100 An examination of the history, application, and attitudes toward the death penalty.

**CRIMIN 3330 White Collar Crime: 3 semester hours**

Prerequisites: Junior Standing, CRIMIN 1120, CRIMIN 2130, CRIMIN 2220, and ENGL 3100, or consent of instructor. This course examines the physical and financial harm caused by crimes committed by corporations and business employees. Theoretical and empirical perspectives will be examined. Topics include: definitional issues and ethics; public perceptions; social, political and economic impact; and legal decision-making.

**CRIMIN 3345 Rights Of The Offender: 3 semester hours**

Prerequisites: CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Analysis of the objectives of criminal law regarding the rights of persons suspected or convicted of crime. Emphasis on rights regarding the police, the court, and in correctional settings.

**CRIMIN 4300 Communities And Crime: 3 semester hours**

Same as SOC 4300. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Analysis of the sources, consequences, and control of crime within communities. Emphasis on social and ecological theories of crime, and on population instability, family structure, and the concentration of poverty as causes of crime.

**CRIMIN 4320 Forms Of Criminal Behavior: 3 semester hours**

Same as SOC 4320. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Examination of major types of criminal behavior including violent, property, public order, and organizational offenses. Emphasis on theories of and responses to these crimes.

**CRIMIN 4325 Gender, Crime, And Justice: 3 semester hours**

Same as SOC 4325 and GS 4325. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220 and ENGL 3100 or consent of instructor. Analysis of the role of gender in crime and in the justice system. Emphasis on gender differences in crime commission, criminal processing, and the employment of women in criminal justice agencies. Fulfills CRIMIN diversity requirement.

**CRIMIN 4330 Violence Against Women: 3 semester hours**

Same as GS 4330. Prerequisites: Junior Standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. This course examines the nature, extent, causes and consequences of various types of violence against women, including rape, sexual assault, stalking, and intimate partner violence. Criminal justice policy and practice regarding violence against women are also examined.

**CRIMIN 4335 Probation And Parole: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, CRIMIN 2260, and ENGL 3100, or consent of instructor. Analysis of alternatives to incarceration and postincarceration supervision. emphasis on diversion, restitution, and community reintegration.

**CRIMIN 4340 Race, Crime, And Justice: 3 semester hours**

Same as SOC 4340. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Analysis of the involvement of racial minorities in crime and the criminal justice system. Emphasis on group differences in offending, processing, victimization, and employment in criminal justice agencies. Fulfills CRIMIN diversity requirement.

**CRIMIN 4350 Victimology: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Analysis of major perspectives on victimization. Emphasis on patterns of victimization, the role of victims in the generation of crime, and the experience of the victim in the criminal justice system.

**CRIMIN 4380 Special Topics In Criminology And Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. In-depth study of a selected topic in criminology and criminal justice.

**CRIMIN 4390 Seminar In Criminology And Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. In this capstone course, students demonstrate the ability to work independently, integrating theory and research in criminology and criminal justice in a major paper supervised by the instructor.

**CRIMIN 4487 Philosophy Of Law: 3 semester hours**

Same As PHIL 4487. Prerequisites: CRIMIN 1100 and 3 hours of philosophy and/or consent of instructor. An intensive study of recent philosophical debate about such issues as the authority of law, legal equality and justice, legal responsibility, self-determination and privacy, and legal punishment.

**CRIMIN 5415 Foundations Of Criminological Theory: 3 semester hours**

Prerequisites: Graduate standing and consent of instructor. Examination of the history of criminological thought incorporating the major works of such theorists as Bentham, Beccaria, Marx, Durkheim, Lombroso, Sutherland and Merton.

**CRIMIN 5533 Philosophy Of Law: 3 semester hours**

Same as PHIL 5533. Prerequisite: Graduate standing or consent of instructor. Examination of origins of law and the basis for legal obligation. Specific consideration of the justification of punishment, morality and law, and legal reasoning.

**CRIMIN 6400 Proseminar: 3 semester hours**

Prerequisite: Graduate standing. (Must be taken in the first Semester). A critical examination of theoretical, methodological and policy issues in criminology and criminal justice. Focus is on the nature of crime, policing, pretrial processes, adjudication and corrections.

**CRIMIN 6405 Methods: 3 semester hours**

Prerequisite: Graduate standing and consent of instructor. Examination of basic methods for research design and data collection. Topics include participant observation and interviewing, survey research, aggregate data analysis, and experimental design.

**CRIMIN 6410 Statistical Applications In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: CRIMIN 6405 Examination of elementary principles of quantitative analysis and their application to crime and justice problems. Topics include univariate, bivariate and multivariate procedures for discrete and continuous data, and a comprehensive introduction to ordinary least squares regression.

**CRIMIN 6420 Contemporary Criminal Theories: 3 semester hours**

Prerequisite: CRIMIN 5415. Examination of contemporary explanations of crime and criminal justice. Theories covered include strain, control, cultural, labeling, conflict, as well as more recent attempts at theoretical integration and multidisciplinary integration.

**CRIMIN 6422 Law Courts, And Public Policy: 3 semester hours**

Prerequisite: Graduate Standing. (Same as Political Science 6422) An analysis of the role of courts as policymaking institutions and the law as policy. We will explore the role of judges as policymakers, consider the attributes of courts, (both trial and appellate), that make them appropriate yet limited targets for advocates of reform, and the implementation and impact of court decisions. We will consider recent examples of judicial involvement in state and national policymaking. In addition, we will examine the role of lawyers and interest groups in selecting litigation rather than alternative political processes for policy change.

**CRIMIN 6436 Comparative Criminology: 3 semester hours**

Prerequisite: Graduate Standing Examination of crime and criminal justice systems in world perspective.

**CRIMIN 6440 Nature Of Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of patterns and correlates of crime at the individual, situational, and aggregate levels. Topics include definitions of crime, offending topologies, and criminal careers.

**CRIMIN 6441 Juvenile Delinquency: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of youth crime and juvenile offenders. Topics include definitions of juvenile crime, and theories of juvenile crime causation in the U.S.

**CRIMIN 6442 Communities And Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the trends and sources of crime and social disorder across communities. The course emphasizes relationships among crime, neighborhood change, neighborhood responses to crime, and public policies.

**CRIMIN 6443 Violent Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the sources and patterns of violent offending across time and space. Topics include conceptions and typologies of violent crimes and offenders, victim-offender relationships, and efforts to predict and control violent offending.

**CRIMIN 6445 Property Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the sources and patterns of property offending across time and space. Topics include conceptions and typologies of property crimes and offenders, victim-offender relationships, and efforts to predict and control property offending.

**CRIMIN 6446 Sex Crime: 3 semester hours**

Same as GS 6446. Prerequisites: Graduate standing and consent of instructor. Examination of consensual and non-consensual sexual offending. Topics include historical development of laws regulating sexual conduct, controversies surrounding the application of these laws, and the nature and distribution of sexual offenses.

**CRIMIN 6448 Victimization: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the risks and consequences of crime for its victims. Issues considered include victim-offender relationships, characteristics of victims, the nature of the injuries they experience and criminal justice procedures that involve them.

**CRIMIN 6450 Criminal Justice Process And Policy: 3 semester hours**

Prerequisite: Graduate standing An analysis of criminal justice as a network of decisions and complex organizations. Topics include sources of criminal justice policy, policy agendas, implementation and evaluation.

**CRIMIN 6452 The Police: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Historical, social and political analysis of policing in America. Examination of federal, state, county and municipal agencies.

**CRIMIN 6454 Corrections: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the history, forms, and functions of correctional philosophies, institutions, programs and policies. Topics include the structure and functions of prisons and jails, community corrections, intermediate sanctions, and the growth of correctional control in modern society.

**CRIMIN 6465 Qualitative Research Design: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of participant observation and informant and respondent interviewing. Topics include gaining access, sampling, data collection and analysis, and legal and ethical concerns.

**CRIMIN 6470 Quantitative Research Design: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Examination of experimental, longitudinal, and cross-sectional designs. Sources of data, sampling procedures, operational definitions, and issues of reliability are also discussed.

**CRIMIN 6471 Evaluating Criminal Justice Interventions: 3 semester hours**

Prerequisites: CRIMIN 6405 and CRIMIN 6410 This course examines a broad range of interventions designed to prevent crime or improve some aspect of the criminal justice system. The validity, reliability, and feasibility of differing intervention designs are addressed. Several major criminal justice evaluations are discussed.

**CRIMIN 6480 Multivariate Statistics In Criminology: 3 semester hours**

Prerequisites: CRIMIN 6405 and CRIMIN 6470 Introduction to the general linear model with applications to multivariate problems in criminal justice and criminology. Topics include advanced ordinary least squares, causal modeling, time series analysis, simultaneous equations, and analysis of limited dependent variables.

**CRIMIN 6485 Directed Readings/Research In Criminology And Criminal Justice: 1-6 semester hours**

Prerequisite: Consent Of Instructor. Directed Reading And Research, Under Faculty Supervision, Designed To Meet Particular Educational Needs Of Selected Students.

**CRIMIN 6495 Internship In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: Graduate Standing Or Consent Of Instructor. Supervised Placements With Criminal Justice Agencies. Designed Primarily For Students With Limited Field Experience.

**CRIMIN 6498 M A Thesis Research: 1-6 semester hours**

Prerequisite: Graduate standing and consent of instructor.



**CRIMIN 6550 Seminar in Criminology and Criminal Justice: 3 semester hours**

Prerequisites: Graduate standing and CRIMIN 5415, CRIMIN 6400, and CRIMIN 6405 or consent of the instructor. Research and policy approaches to the study of criminology and criminal justice. Class may be repeated for credit when the subject matter is different.

**CRIMIN 7499 Ph.D. Dissertation Research: 1-6 semester hours**

To be arranged.

## Economics

### Undergraduate Programs Overview

#### Bachelor of Arts (B.A.) in Economics

The B.A. in Economics is more "liberal arts" in its focus than the B.S. degree. The B.A. degree requires completion of the BA foreign language requirement of the College of Arts and Sciences.

#### Bachelor of Science (B.S.) in Economics

The B.S. in Economics provides more in-depth development of the analytical and quantitative skills used in economic analysis. Students are required to complete calculus, econometrics, and additional quantitative coursework. The B.S. also offers very strong students the option of pursuing the Dual B.S./M.A. program.

#### B.S./M.A. Dual Degree Program in Economics

The B.S./M.A. ("2+3") dual degree program in Economics is an accelerated program that allows students to complete a B.S. and a M.A. in Economics in five years. The program is targeted at students who are comfortable with mathematics and have demonstrated success in undergraduate-level quantitative and analytical economics courses.

#### Minor in Economics

The Department offers a minor in Economics to students who want to develop some knowledge in this field but wish to major in another discipline.

#### Certificate in Actuarial Studies

A number of quantitative courses offered by the Department help satisfy the prerequisites for the Certificate in Actuarial Studies and help fulfill the VEE requirements in Economics and Applied Statistics. These courses have received approval of the Society of Actuaries (SOA). For more information on the Certificate in Actuarial Studies, see the Mathematics Department undergraduate program (<https://nextbulletin.umsl.edu/artsandsciences/mathematicsandcomputerscience/#undergraduatetext>).

#### Courses in Geography

The department offers a number of courses in geography, both online and on campus.

#### Resources

A valuable campus resource available to economics students is the Economic Resources Center (ERC). The ERC serves as a University Computer lab, study, and meeting space. The ERC also provides peer tutors for undergraduate economics courses (especially for principles of microeconomics and principles of macroeconomics).

## Graduate Programs Overview

### Master of Arts (M.A.) in Economics

The M.A. in Economics is specifically designed for those seeking to work as professional economists. Students acquire knowledge and a versatile set of skills that are highly valued in the workplace. The M.A. program has an excellent track record in job placement and placement in top Ph.D. programs. A unique feature of the program is the large number of applied econometrics and quantitative courses offered. The program can accommodate prospective full-time students as well as those who wish to study part-time. Classes are small, and student-faculty interaction is encouraged.

### About the Faculty

The economics faculty considers research an integral part of good teaching. Research projects in recent years have dealt with energy, public choice, industrial organization, property rights, wage discrimination, urban economic development, health economics, economics of science, economics of gender, poverty and welfare, economics of culture, and government regulations.

### Career Outlook in Economics

Nearly every decision that a person, business, or government makes falls under the purview of economic analysis. In economics course work, students learn to think analytically and apply their knowledge to a broad range of topics and problems. These skills are highly valuable in our ever changing economy, as well as in everyday life. For this reason, those with economics degrees are in high demand in a wide number of occupations, whether in business or government. In addition, economics majors are especially sought after by law schools, M.B.A. programs and, of course, graduate programs in economics. Job prospects for those with economics degrees at both the undergraduate and graduate levels are expected to remain strong over the next decade. For additional information on the undergraduate program, contact the Director of Undergraduate Studies at 516-5562 or 516-5306. Regarding the graduate program, contact the Director of Graduate Studies at 516-5553. Additional information is also available at the Department of Economics website.

## Undergraduate Studies

### General Education Requirements

All undergraduate economics majors must meet the university and college general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>). Candidates for the B.A. degree may take any foreign language to meet this requirement. Candidates for the B.S. degree take mathematics and quantitative courses instead of the foreign language requirement. Courses in economics may be used to meet the university social sciences requirement.

### Satisfactory/Unsatisfactory Option

Courses outside the major field and ECON 1001, Principles of Microeconomics, and ECON 1002, Principles of Macroeconomics, may be taken on a satisfactory/unsatisfactory basis.

### Prerequisites

All prerequisites for economics courses must be completed with a C- or better.



## Bachelor of Arts in Economics

Candidates for the B.A. degree must take at least 33, but no more than 45, hours in economics. At least 27 hours must be above the 2000 level. All core courses for the major must be completed with a grade of C- or better.

The following core courses are required:

ECON 1001	Principles Of Microeconomics	3
ECON 1002	Principles Of Macroeconomics	3
ECON 2800 or ECON 3800	History Of American Economic Development History Of Economic Thought	3
ECON 3001	Intermediate Microeconomics	3
ECON 3002	Intermediate Economic Theory:Macroeconomics	3
ECON 3100	Economic Statistics	3
ECON 3200	Money, Banking And Monetary Theory	3

## Education Majors

Education majors specializing in economics must fulfill the requirements for the B.A. degree. These majors are responsible for obtaining an adviser in the Department of Economics.

## Bachelor of Science in Economics

Candidates for the B.S. degree must complete at least 36, but no more than 50, hours in economics. At least 30 hours must be at or above the 2000 level. All core courses for the major must be completed with a grade of C- or better.

The following core courses are required:

ECON 1001	Principles Of Microeconomics	3
ECON 1002	Principles Of Macroeconomics	3
ECON 3001	Intermediate Microeconomics	3
ECON 3002	Intermediate Economic Theory:Macroeconomics	3
ECON 3100	Economic Statistics	3
ECON 3200	Money, Banking And Monetary Theory	3
ECON 4100	Introduction To Econometrics	4
MATH 1800	Analytic Geometry And Calculus I (strongly recommended) <sup>1</sup>	3-5
or MATH 1100	Basic Calculus	
Select two of the following:		6-8
ECON 4030	Managerial Economics	
ECON 4040	Analysis Of Business Cycles	
ECON 4110	Applied Econometrics	
ECON 4120	Time Series Econometrics For Economics And Finance	
ECON 4130	Business And Economic Forecasting	
ECON 4150	Mathematical Economics	
ECON 4160	Geospatial Analysis In The Social Sciences	
ECON 4170	Fundamentals Of Cost-Benefit Analysis	
Mathematics courses numbered 1900 or above with consent of advisor <sup>1</sup>		

<sup>1</sup> Note: mathematics courses used for this requirement do **not** count towards the 36 hours in economics requirement

## B.S./M.A. Dual Degree Program in Economics

The B.S./M.A. (also known as the "2+3") program is an accelerated program that allows students to complete a B.S. and a M.A. in economics in five years. The program allows students to apply 12 of the M.A. credit hours towards the B.S., reducing the overall required hours for the two degrees from the standard 150 (120 for the B.S. plus 30 for the M.A.) to 138 hours.

The M.A. in Economics requires 30 credit hours; at least 21 hours must be completed in residence.

The following 3 courses (9 credit hours) are required:

ECON 5001 (p. 126)	Microeconomic Analysis	3
ECON 5002 (p. 126)	Macroeconomic Analysis	3
ECON 5100 (p. 126)	Econometric Theory And Methods	3

In addition, 21 credit hours of electives must be completed. At most, six of these credit hours may be economics courses at the 4000 level (excluding ECON 4100 (<https://nextbulletin.umsl.edu/artsandsciences/economics>) and ECON 4150 (<https://nextbulletin.umsl.edu/artsandsciences/economics>) which cannot be utilized as part of the M.A. degree); all other electives must be at the 5000 level or higher.

Of the 30 hours taken in the M.A. program, 12 of these hours (per the approval of the Graduate Director) will also count toward the undergraduate B.S. requirements. All other requirements for the B.S. degree remain in effect.

## Admission Requirements

Applicants must have completed between 60 and 108 credit hours. Applicants must have a minimum G.P.A. of 3.0 (both overall and in economics courses) and must be nominated by a full-time regular economics faculty member. Applicants must have completed all of the general education requirements as well as college algebra (or a higher level mathematics course), introductory microeconomics and introductory macroeconomics. Those accepted with fewer than 90 semester credit hours are accepted only on a provisional basis. Once the student has completed 90 semester hours of coursework (typically including ECON 3001 (<https://nextbulletin.umsl.edu/artsandsciences/economics>), ECON 3002 (<https://nextbulletin.umsl.edu/artsandsciences/economics>), ECON 3100 (<https://nextbulletin.umsl.edu/artsandsciences/economics>), ECON 3200 (<https://nextbulletin.umsl.edu/artsandsciences/economics>), MATH 1800 (<https://nextbulletin.umsl.edu/artsandsciences/economics>), and preferably ECON 4100 (<https://nextbulletin.umsl.edu/artsandsciences/economics>)) with a satisfactory G.P.A. (minimum G.P.A. of 3.0 overall and in economics courses) the provisional status is dropped.

It is recommended that applicants apply when they have completed 90 credit hours; further, it is recommended that applicants should complete intermediate microeconomics (ECON 3001 (<https://nextbulletin.umsl.edu/artsandsciences/economics>)) and/or introductory econometrics (ECON 4100 (<https://nextbulletin.umsl.edu/artsandsciences/economics>)) before applying.

## Awarding of Degree

Both degrees (the B.S. and M.A.) will be awarded when all requirements for the entire program have been completed. In other words, the B.S. and M.A. degrees will be simultaneously awarded at the completion of study.

Students who officially withdraw from the B.S./M.A. Dual Degree Program in Economics and who have successfully completed all of the requirements for the B.S. degree will be awarded the B.S. degree.

## Departmental Honors

A student may earn departmental honors with a GPA of 3.6 in economics and the recommendation of the department.

## Minor in Economics

Candidates for a minor in economics must take a minimum of 15 hours in economics.

The following courses are required:

ECON 1001	Principles Of Microeconomics	3
ECON 1002	Principles Of Macroeconomics	3

For the remaining 9 hours, 3 hours must be at or above the 2000 level and 6 hours must be at or above the 3000 level. It is recommended that students take ECON 3001, Intermediate Economic Theory: Microeconomics and/or ECON 3002, Intermediate Economic Theory: Macroeconomics. ECON 3100, Economic Statistics, cannot be counted towards the economics minor if the student has also taken LOG OM 3300 or the equivalent.

A GPA of 2.0 or better is required for courses presented for the minor. The satisfactory/ unsatisfactory (s/u) option may be applied to ECON 1001 and only.

## Certificate in Applied Econometrics and Data Analysis

The Certificate is designed to prepare students to perform applied econometric analysis in a variety of professional settings: banks, telecommunications companies, consulting firms, etc. Those with economics degrees are in high demand in a large number of occupations, whether in business or government; students with advanced econometrics skills who understand how to apply these techniques in real-world settings are in even higher demand.

The Certificate in Applied Econometrics is designed to provide the education needed for employment in analysis positions in business or government. The Certificate will be attractive to economics majors with a quantitative focus, (applied) math majors, and selected students from other social sciences.

The Certificate consists of 6 courses met through 3 required courses and 3 electives which must be selected from the list below. At least 4 of these courses must be completed in residency at UMSL.

(Note that all of these courses have prerequisites that the student must complete before taking the selected course.)

### Required Courses

ECON 4100	Introduction To Econometrics	4
ECON 4110	Applied Econometrics	4

ECON 4120	Time Series Econometrics For Economics And Finance	4
or ECON 4130	Business And Economic Forecasting	

### Electives

The remaining 3 electives must come from the following list: 9-10

ECON 4040	Analysis Of Business Cycles	
ECON 4120	Time Series Econometrics For Economics And Finance (if course not used above)	
ECON 4130	Business And Economic Forecasting (if course not used above)	
ECON 4160	Geospatial Analysis In The Social Sciences	
LOG OM 4312	Business Forecasting (may not be used with ECON 4130)	
MATH 4200	Mathematical Statistics I	
MATH 4210	Mathematical Statistics II	
POL SCI 4040	Survey Research Practicum in Political Science	
PSYCH 4365	Psychological Tests And Measurements	
SOC 4040	Survey Research Practicum for Sociology	
SOC 4331	Qualitative Methods In Social Research	

## Complementary Areas of Study

The department encourages all majors to develop breadth in related disciplines. Course work and minors are available in a number of areas such as business administration, computer science, statistics, and political science. In addition, courses offered by the department help satisfy the prerequisites for courses required for the Certificate in Actuarial Studies (<http://bulletin.umsl.edu/artsandsciences/mathematicsandcomputerscience/#undergraduatetext>) and have been approved by the Society of Actuaries (SOA) to satisfy the VEE requirements in Economics and Applied Statistics. Students should check with their advisers for recommendations concerning courses in these areas. The department suggests the following supplemental course work for students interested in pursuing doctoral-level graduate work in economics or careers in general business. It also encourages all students to obtain work experience by enrolling in the Internship In Applied Economics (ECON 4990).

## Graduate School Preparation

It is recommended that students considering doctoral-level graduate work in economics also take:

MATH 1900	Analytic Geometry And Calculus II	5
MATH 2000	Analytic Geometry And Calculus III	5
MATH 2020	Introduction To Differential Equations	3
MATH 2450	Elementary Linear Algebra	3
MATH 4100	Real Analysis I	3
MATH 4200	Mathematical Statistics I	3

## General Business Preparation

It is recommended that students interested in pursuing careers in business also take:

ACCTNG 2400	Fundamentals Of Financial Accounting	3
ACCTNG 2410	Managerial Accounting	3
BUS AD 2900	Legal Environment Of Business	3

FINANCE 3500	Financial Management	3
MKTG 3700	Basic Marketing	3

ECON 5001 (p. 126)	Microeconomic Analysis	3
ECON 5002 (p. 126)	Macroeconomic Analysis	3
ECON 5100 (p. 126)	Econometric Theory And Methods	3

## Learning Outcomes

Students completing the B.A. and B.S. in Economics are expected to have achieved the following learning outcomes:

- Use economic reasoning to interpret and evaluate social, political and economic arguments, and policies.
- Use mathematical methods to interpret and analyze economic models to assess their logical validity and to model economic phenomena.
- Use statistical methods to interpret and analyze economic data and to assess the empirical validity of economic propositions.
- Employ their understanding of key market institutions such as property rights and contracts and economic organizations such as the Federal Reserve System and the International Monetary Fund to analyze economic behavior and evaluate public policy.
- Identify the causes and consequences of poverty and prosperity across and within societies.
- Predict changes in key macroeconomic variables in response to changes in social, political, and economic policy as well as non-economic events such as terrorist attacks, natural disasters, and changes in consumer confidence.
- Write a research paper that employs sound economic reasoning and, where appropriate, uses data and statistical methods to analyze an economic policy.

## Master of Arts in Economics

### Admission Requirements

An undergraduate major in economics is not required for acceptance into the program. Application for admission may be submitted at any time, although class work formally begins in late August, mid-January, and mid-June. Candidates must meet the general admission requirements of the Graduate School, submit GRE scores (Advanced Economics optional), and submit two letters of recommendation from persons qualified to judge the candidate's potential for success in the program.

The admissions decision is based on the applicant's academic transcript, GRE scores, letters of recommendation, and a personal narrative on the application form.

### Degree Requirements

The M.A. in Economics requires 30 credit hours; at least 21 hours must be completed in residence.

Candidates need not have an undergraduate degree in economics. However, students are expected to have taken intermediate micro- and macro-economics, mathematical economics, and introductory econometrics prior to the beginning of the core curriculum. Students that do not have these courses will take these courses first; credits earned in these courses do not count towards the 30 hours required for the MA.

### Required Core Courses

The following courses or their equivalents are required for the M.A. in Economics. Students with previous education in economics or business may waive some of these courses.

## Electives

Candidates must complete at least 21 hours of electives. A maximum of 6 hours of economics electives may be taken at the 4000 level. With the approval of the graduate coordinator, students may take up to 9 hours of graduate courses outside the Department of Economics. In particular, students interested in business economics may take up to three approved graduate business courses for their electives.

## Departmental Honors

A student may earn departmental honors with a GPA of 3.75 in all required courses for the M.A. degree and the recommendation of the department.

## Complementary Areas of Study

Students with a public policy focus can complete the M.A. in Economics and the Public Policy Administration (PPA) Graduate Certificate in Policy and Program Evaluation (PPE) (<http://bulletin.umsl.edu/graduateschool/publicpolicyadministration/#graduatetext>). It is possible to earn the Certificate without any additional coursework beyond what is required for the M.A. alone.

## Learning Outcomes

Students completing the M.A. in Economics are expected to have achieved the following learning outcomes:

- Interpret and analyze economic models and assess their validity.
- Use theoretical and empirical tools to design effective business and government policies.
- Use econometric methods to interpret and analyze economic data, to assess the empirical validity of economic propositions, evaluate business and government policies, and to forecast economic variables.
- Develop at least one topic area of expertise through familiarity with the relevant scholarly and professional literatures, policy issues, institutions, and current data trends.
- Develop at least one methodological area of expertise through the acquisition of the theoretical and empirical tools needed to understand scholarly and professional contributions to the literature to facilitate lifelong professional development and refinement of expertise.
- Write a professional quality research paper.
- Develop sufficient proficiency in the use of theoretical and empirical tools and in understanding of economic institutions to excel in a Ph.D. program.

## Sample Four Year Plans

Economics BA (p. 129) Economics BS (p. 130)

### Economics BA

First Year	Hours Spring	Hours
Fall		
INTDSC 1003 <sup>1</sup>	1 ECON 1003	1
ENGL 1100	3 ECON 1001	3

Foreign Language 1001	5 Foreign Language 1002	5
General Education <sup>2</sup>	3 General Education	3
MATH 1030	3 MATH 1100	3
	<b>15</b>	<b>15</b>
<b>Second Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ECON 1002	3 ECON 3001	3
Foreign Language 2101	3 General Education	9
General Elective	9 Elective or minor	3
	<b>15</b>	<b>15</b>
<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ENGL 3100	3 ECON 3002	3
ECON 3200	3 ECON 3100	3
General Elective	3 Elective or minor	9
Elective or minor	3	
ECON 2800	3	
	<b>15</b>	<b>15</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ECON 2000+ level courses	6-8 ECON 2000+ level courses	6-8
Elective or minor	9 Elective or minor	9
	<b>15-17</b>	<b>15-17</b>

Total Hours: 120-124

- INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.
- The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science or Humanities general education course.

Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.

## Economics BS

<b>First Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
INTDSC 1003 <sup>1</sup>	1 ECON 1001	3
ENGL 1100	3 MATH 1800 or 1100	5
MATH 1030 or 1040	3 General Education	6
MATH 1035	2	
General Education	6	
	<b>15</b>	<b>14</b>
<b>Second Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ECON 1002	3 ECON 3001	3
General Education	9 ECON 3200	3
Elective or minor	3 General Education	3

	Elective or minor	6
	<b>15</b>	<b>15</b>
<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ENGL 3100	3 ECON 4100	4
ECON 3002	3 ECON 2000+ course	3-4
ECON 3100	3 Elective or minor	9
Elective or minor	6	
	<b>15</b>	<b>16-17</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ECON quantitative course	3-4 ECON quantitative course	3-4
ECON 2000+ level course	3-4 ECON 2000+ level course	3-4
Elective or minor	9 Elective or minor	9
	<b>15-17</b>	<b>15-17</b>

Total Hours: 120-125

- INTDSC 1003 is required only for first-time freshmen and transfer students with less than 26 college credits.
- The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science or Humanities general education course.

Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.

## Economics Courses

### ***ECON 1000 Introduction To The American Economy: 3 semester hours***

Introduction to economic analysis and problems through an examination of the development and operations of the American economy; study of its evolution, institutions and principal problems. ECON 1000 does not substitute for ECON 1001 or ECON 1002. Students who have already completed ECON 1001 or ECON 1002 may not take ECON 1000 for credit.

### ***ECON 1001 Principles Of Microeconomics: 3 semester hours***

Prerequisite: MATH 1030. Introduction to the determinants of household demand, production and cost, and market prices. Applies the principles of individual decision-making behavior to understanding goods, services and resource markets.

### ***ECON 1002 Principles Of Macroeconomics: 3 semester hours***

Prerequisite: MATH 1030 and ECON 1001. Introduction to the determination of levels of and changes in aggregate income, output, employment and prices. Applies economic principles of choice to the formulation and achievement of public policies that affect national employment, income distribution, and economic growth.



***ECON 1003 Microeconomics In The News: A Virtual Classroom: 1 semester hour***

Prerequisites: ECON 1000 or ECON 1001 (may be taken concurrently). This course uses a virtual chatroom to host one hour of discussion weekly about current news events with microeconomic content. News articles will focus on business, public policy, and individual choices that can be understood within a microeconomics framework. Chatroom can be accessed from any location-on or off-campus - with internet access.

***ECON 1004 Macroeconomics In The News: A Virtual Classroom: 1 semester hour***

Prerequisite: ECON 1002 (may be taken concurrently) This course uses a virtual chatroom to host one hour of discussion, weekly, about current news events with macroeconomic content. News articles will focus on macroeconomic phenomena - e.g., interest rates, the global economy, the Federal Reserve and public policy decisions - that can be understood within a macroeconomics framework. Chatroom can be accessed from any location - on or off-campus - with internet access.

***ECON 1005 Family Economics and Household Development: 3 semester hours***

Provides social service professionals that work with low income individuals and families with an understanding of the principles of personal financial management. Case studies are used to apply course content and to develop training strategies for clients to improve household financial management. The role of financial institutions and government policies as well as their impact on low income families is also examined. Resources to use with clients will be identified. ECON 1005 does not count toward a major or minor in Economics.

***ECON 1500 Entertainment Economics: The Movie Industry: 3 semester hours***

Same as MEDIA ST 1500. This survey course examines the interrelationships between economics and the movie industry. It explores the impact of economic factors on the production, distribution and exhibition of movies, focusing on the rise and fall of the studio system, role of technological change in the evolution of cinematography and the movie marketplace, financing and market segmentation, globalization and changing industrial structure within which films are produced. To the extent that movies reflect and contribute to popular economic perspectives, this course also evaluates the soundness of the movie industry's depiction of a variety of economic doctrines. Classes will consist of lecture, discussion, and brief film screenings. This course does not count towards the hours required for an economics major.

***ECON 2410 Work, Families, And Public Policy: 3 semester hours***

Same as GS 2410. Prerequisites: ECON 1000 or ECON 1001. This course compares the economic behavior of women and men in both the labor market and the household. Topics include: the family as an economic (production) unit, gender differences in labor force participation, occupations and earnings; the effectiveness of human capital theory and labor market discrimination in explaining the male-female wage gap; remedies for reducing the wage gap; family structure and economic well-being; and alternative policies to alleviate poverty. Students who have completed ECON 3400 may not take ECON 2410 for credit.

***ECON 2610 The Economics Of Professional Sports: 3 semester hours***

Prerequisites: ECON 1000 or ECON 1001 or consent of instructor This course will survey the economic organization of professional sports team industries and the relationship of sports teams to their employees, fans, and governments. Economic issues relating to salaries and labor disputes, monopoly practices, cartels and pricing, team location decisions, and public subsidies for professional sports teams will be analyzed.

***ECON 2800 History Of American Economic Development: 3 semester hours***

Same as HIST 2800. Prerequisites: ECON 1000 or ECON 1001 or consent of instructor. Uses economic concepts to explain historical developments in the American economy, beginning with the hunter-gatherers who crossed the Bering land bridge around 12,000 BC. Main topics include the Native American economies, European exploration and conquest, the colonial economies, indentured servitude, the American Revolution, the US Constitution, westward expansion, transportation, the Industrial Revolution, state banking and free banking, slavery, the Civil War, post-bellum agriculture, the rise of big business and anti trust, banking panics, the Federal Reserve Act, the First and Second World Wars, the New Deal, and the growth of government in the postwar economy.

***ECON 3001 Intermediate Microeconomics: 3 semester hours***

Prerequisite: MATH 1030 and ECON 1001. Analysis of prices in terms of equilibrium of the business firm and consumer demand in markets of varying degrees of competition.

***ECON 3002 Intermediate Macroeconomics: 3 semester hours***

Prerequisite: MATH 1030, ECON 1001 and ECON 1002; ECON 3200 is recommended. Study of national income, expenditure and the forces determining the level of economic activity. Special emphasis on the theory of income determination and its application to public policy.

***ECON 3003 Game Theory And Strategic Decision Making: 3 semester hours***

Prerequisites: ECON 1001. When the best course of action depends on the decisions made by others, strategy becomes important. Game theory provides the tools for analyzing such strategic decision making. Strategic behavior is analyzed in the context of business, logistics, biology, war, government, politics, and everyday life. A wide variety of in-class experiments are used to illustrate key concepts.

***ECON 3052 Microeconomics For The School Curriculum: 1-3 semester hours***

Prerequisite: Junior standing. Analysis of market forces, with emphasis on business firms, households, and productive-factor markets, price determination and resource allocation. Special reference to topics included in elementary and secondary school social science curricula. ECON 3052 may not be used by Economics majors to meet degree requirements.

***ECON 3055 Economic Issues For The School Curriculum: 1-3 semester hours***

Prerequisites: Junior standing and consent of instructor. An analysis of selected economic issues appropriate to instruction in secondary and elementary schools. May be taken more than once for credit, provided the topic of the course is different each time. May not normally be used by economics majors to meet degree requirements. This course does not fulfill the undergraduate economics requirement for education majors.

***ECON 3100 Economic Statistics: 3 semester hours***

Prerequisite: MATH 1030, ECON 1001, and ECON 1002. Introduction to economic data sources, data interpretation and statistical inference as used in economic analysis. Emphasizes the testing of economic hypotheses and the development and estimation of economic models. Introduces the use of statistical software used in economics.

***ECON 3200 Money, Banking And Monetary Theory: 3 semester hours***

Prerequisites: ECON 1001 and ECON 1002. Factors influencing bank reserves and the money supply. Ability of the Federal Reserve System and the Treasury to control these factors. Introduction to monetary theory: integration of monetary phenomena with national income theory. Analysis of current policy issues.

**ECON 3300 International Economic Analysis: 3 semester hours**

Prerequisite: ECON 1001. Introduction to the theories of international trade and factor movements including determinants of trade, the effects of trade on sectors and on overall economic performance, trade restrictions, and balance of payments and exchange rates. Discussion of current institutions and economic developments in the global economy.

**ECON 3320 Economic Development: 3 semester hours**

Prerequisites: ECON 1001 and ECON 1002. Survey of economic growth as applied to developed and underdeveloped countries. Analysis of development policies with Emphasis on case studies. Case studies may include the United States, Western Europe or Latin America.

**ECON 3400 Labor Economics: 3 semester hours**

Prerequisites: ECON 1001 Examines the labor market in the economy. considers the theories of labor supply, labor demand, and market determination of wages. Other topics include noncompetitive markets, international labor markets, the theory of human capital, compensating wage differentials, labor market discrimination, unions and collective bargaining, unemployment, and poverty and the distribution of income.

**ECON 3450 Labor in the Global Political Economy: 3 semester hours**

This course will examine current issues, trends, and developments which are shaping labor in today's global economy. Students will analyze the shifting balance of power between labor and capital, the role of government, and evaluate the strategic options for workers and unions operating in a global environment. ECON 3450 may not be used by economics majors to meet degree requirements.

**ECON 3500 The Economics of Government Spending and Taxation: 3 semester hours**

Prerequisites: MATH 1030 and ECON 1001. Analysis of the role of government expenditures and taxation. Topics include: (1) analysis of public goods and externalities, models of collective choice, elements of benefit-cost analysis the theory of bureaucracy, governments as agents in markets; and (2) analysis of the economic role of governments, subsidies and taxes in the federal system, criteria for tax evaluation, the nature of tax legislation, private decision making under different tax institutions, and government borrowing.

**ECON 3600 Market Structure, Strategy, and Pricing: 3 semester hours**

Prerequisite: ECON 1001. A theoretical and empirical analysis of the actions of firms under alternative forms of market organization. The role of economies of scale, product differentiation, mergers, and advertising in affecting industry structure and the impact of the resulting industry structure on pricing, output, promotion, and technology decisions of firms.

**ECON 3650 Law And Economics: 3 semester hours**

Prerequisites: ECON 1001 Analysis of the economic role of property rights and contracts in the private for-profit and not-for-profit sectors of the economy. Considers economic incentives to form organizations as one alternative and to form contracts as another. Considers the economic efficiency of the common law and judicial systems in use in the United States.

**ECON 3800 History Of Economic Thought: 3 semester hours**

Prerequisite: ECON 1001 and ECON 1002. The evolution of economic thought from the ancients through post-Keynesian theory.

**ECON 3900 Selected Topics In Economics: 3 semester hours**

Prerequisites: ECON 1001 and ECON 1002. Analysis of a selected economic topic. The topic selected will vary from semester to semester. This course may be taken for credit more than once so long as the topic discussed in each semester is different.

**ECON 4030 Managerial Economics: 3 semester hours**

Prerequisites: ECON 3001; MATH 1800 or MATH 1100 recommended. Application of microeconomic theory to decision-making process in the business firm. Topics include pricing and profit strategy, cost analysis, decision making under uncertainty, technology, innovation, and productivity growth, and the structure and organization of firms. Problem-solving and case-study approach used.

**ECON 4040 Analysis Of Business Cycles: 3 semester hours**

Prerequisites: ECON 3002, ECON 3100, and ECON 3200 or equivalent. This course focuses on the empirical regularities in macroeconomics commonly referred to as the business cycle. It examines the variability and co-movements of aggregate economic variables and explores alternative theoretical explanations of these phenomena.

**ECON 4100 Introduction To Econometrics: 4 semester hours**

Prerequisites: ECON 1001 and ECON 1002; ECON 3100 or MATH 1320 or LOG OM 3300; MATH 1800 or MATH 1100. An introduction to quantitative analysis of economic behavior. The ordinary least squares technique and the assumptions underlying it are developed. Methods designed to detect and correct for the violations of these assumptions are examined. Special emphasis is given to the practical application of the procedures discussed through the use of computer exercises.

**ECON 4105 Quantitative Mth & Modeling In Econ, Business & Social Sciences: 3 semester hours**

Prerequisites: MATH 1030; ECON 1001 or junior standing This course focuses on the application of mathematical techniques to model building. The course reviews various mathematical techniques and shows students how they can be used for describing various social and business phenomena. Specific examples from the business, economics, criminology and other social sciences will be employed to reinforce the mathematical tools and concepts discussed. Students who have previously completed ECON 4150, MATH 1800 or MATH 1100 may not take this course for credit.

**ECON 4110 Applied Econometrics: 4 semester hours**

Prerequisites: ECON 4100 or equivalent. Concepts, techniques, & advanced applications of econometrics. Emphasis on developing a critical understanding of the appropriateness and limitations of a variety of state-of-the-art techniques used to model economic or political processes. Topics will include joint tests of hypotheses, estimation of lagged effects, models of qualitative choice, simultaneous systems, and outlier diagnostics. This course includes laboratory work in quantitative economic analysis.

**ECON 4120 Time Series Econometrics For Economics And Finance: 4 semester hours**

Prerequisites: ECON 4100 or equivalent and a solid foundation in statistics. Introduction to application of econometric methods to timeseries data. Emphasis on model specification as it appears to macroeconomic or financial data. Topics include: Stationary and non-stationary time-series, seasonality, random walks, unit roots, Dickey-Fuller tests, cointegration, ARCH/GARCH models, and general to specific modeling (ADLs). Specific applications to macro-economics, international economics and/or financial markets.

**ECON 4130 Business And Economic Forecasting: 4 semester hours**

Prerequisites: ECON 4100 or equivalent. Alternative forecasting methodologies for economic time series will be analyzed and discussed. The focus of the course will be: (1) the development of time-series (ARIMA) models and their application to forecasting; (2) the use of standard econometric models for forecasting; and (3) evaluation and comparison of these methods and the conditions under which each is the appropriate methodology. This course includes laboratory work in quantitative economic analysis.

**ECON 4150 Mathematical Economics: 3 semester hours**

Prerequisites: MATH 1800 or MATH 1100; ECON 3001 or BUS AD 5000 or BUS AD 5001. This course uses calculus and other mathematical tools to analyze economic phenomena. In addition to exploring techniques used to solve unconstrained and constrained optimization problems, the course also examines how matrix algebra is used in economic modeling. This course allows students to mathematically analyze economic models which receive graphical treatment in lower level courses.

**ECON 4160 Geospatial Analysis In The Social Sciences: 3 semester hours**

Prerequisites: Junior standing. ECON 1001 or consent of instructor. Analysis of geospatial data relating to a variety of social phenomena using geographic information systems (GIS) software. Students will learn how geospatial analysis can be integrated into research projects and presentations (e.g., creating maps to present and analyze social, political, and economic data). Students will also learn how criminal activity, economic activity, voting patterns and other social behavior are spatially correlated with demographic data. As a culminating project, students will learn how to apply GIS techniques, including but not limited to sophisticated spatial modeling of social behavior.

**ECON 4170 Fundamentals Of Cost-Benefit Analysis: 3 semester hours**

Prerequisites: ECON 3001 or equivalent. The purpose of this course is to provide a systemic and rigorous way of thinking about the measurement of benefits and costs when evaluating public projects, programs or regulations. Cost-benefit analysis has wide application, including: environmental resource use, highway construction projects, safety regulations, taxation of cigarettes, and investment in higher education. Given the prevalence of cost-benefit analysis in government budgetary processes, this course will develop critical appraisal skills to evaluate the appropriateness of these analyses.

**ECON 4210 Financial Markets And Institutions: 3 semester hours**

Prerequisite: ECON 3200. Demand, supply and flow of funds in the macrofinancial system, including money, capital, futures and foreign exchange markets. Examines types and historical development of domestic and international financial intermediaries operations within these markets, decision-making within individual intermediaries, their regulatory environment, and how their portfolio decisions affect flows of funds in the financial system.

**ECON 4510 Public Choice: 3 semester hours**

Prerequisites: ECON 3001 or consent of instructor. Public choice is the analysis of government and governmental institutions through the logic of economics. It assumes the same principles that economists use to analyze actions in the marketplace, and applies them to actions made in collective decision-making. Topics include: the efficiency of democracy, voting methods, the incentives of legislators, bureaucrats and lobbyists, political competition, and public institutions and economic growth.

**ECON 4550 Natural Resource Economics: 3 semester hours**

Prerequisites: ECON 1001 or consent of instructor; junior standing. The relationship between human activity and the world's natural resources requires choices. This course uses an economics perspective to study these choices. This perspective uses the view of the environment as an asset for its starting point. Issues concerning the optimal and sustainable use of natural resources are examined in this context. Special emphasis is given to potential policy responses to environmental problems.

**ECON 4700 Urban Areas and Real Estate Markets: 3 semester hours**

Prerequisites: ECON 3001. Investigate the spatial aspects of urban economics: location theory, market areas, agglomerations, and real estate. The focus is on the description and explanation of the spatial allocation of economic activity with particular attention paid to the role of cities. Topics will include regional development, the growth of cities, firm location decision, spatial externalities, sprawl, and housing markets. Students may not receive credit for both ECON 4700 and ECON 5700.

**ECON 4720 The Economics Of Real Estate And Land Use Policy: 3 semester hours**

Prerequisites: ECON 3001 and ECON 4100. This course will introduce economic theory and analysis of the real estate market's micro and macro characteristics. Public policy impacting both the residential and commercial property markets will be discussed using the models developed in the course. Topics include price and location theory, growth and growth patterns, urban sprawl, migration, regulation of land and capital, provision of public goods, and non-market valuation econometric modeling. Hands on applications of various non-market econometric models will be provided.

**ECON 4900 Advanced Topics In Economic Analysis: 3 semester hours**

Prerequisite: ECON 3001 or ECON 3002 or consent of instructor. Study of a specific topic in Economics that may vary from semester to semester. May be taken for credit more than once if the topics are different.

**ECON 4980 Special Readings: 1-6 semester hours**

Prerequisite: Consent of instructor; grade point of 3.0 or higher in Economics. Unscheduled, independent directed readings on topics mutually acceptable to student and instructor. Maximum credit limited to six hours.

**ECON 4990 Internship In Applied Economics: 2-6 semester hours**

Prerequisites: ECON 3001, junior standing and consent of instructor. Independent study involving work with an appropriate private firm or public agency. A maximum of six hours may be earned, only three of which may be applied to the Economics major.

**ECON 5001 Microeconomic Analysis: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; ECON 4150. Survey of Microeconomic comparative statistics. Detailed examination of demand and supply, product and factor markets. Partial equilibrium in competitive, imperfectly competitive and monopolistic markets.

**ECON 5002 Macroeconomic Analysis: 3 semester hours**

Prerequisites: ECON 3200; ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; and ECON 4150. Aggregate economic theory, including analysis of the determinants of income, output, employment, and prices. Employment and price-level effects of consumer and investment demand, the money supply and interest rates, and government policies.



***ECON 5010 Microeconomics For Policy Analysis: 3 semester hours***

Same as P P ADM 6080. Prerequisite: Graduate Student Standing. This course introduces microeconomic analysis of consumers, firms, and government, with an emphasis on policy applications. It assumes no prior training in economics and is appropriate for graduate students in public policy administration, nonprofit management, political science, gerontology, criminology and criminal justice, and other related fields. This course may not be used by economics students to meet M.A. degree requirements.

***ECON 5051 Macroeconomics For The School Curriculum: 1-3 semester hours***

Prerequisite: Junior standing. Analysis of forces affecting the national economy, with emphasis on income determination, employment, money and banking, and international trade and finance. Special reference to topics included in elementary and secondary school social science curricula. Economics 305 may not be used by Economics majors to meet degree requirements.

***ECON 5052 Microeconomics For The School Curriculum: 1-3 semester hours***

Prerequisites: Bachelor's degree from an accredited institution or consent of instructor. Analysis of market forces, with emphasis on business firms, households, productive factor markets, price determination and resource allocation. Special reference to topics included in the elementary and secondary school social science curricula.

***ECON 5055 Economic Issues For School Curriculum: 1-3 semester hours***

Prerequisite: Junior standing and consent of instructor. An analysis of selected economic issues appropriate to instruction in secondary and elementary schools. May be taken more than once for credit provided the topic of the course is different each time. May not normally be used by economics majors to meet degree requirements.

***ECON 5100 Econometric Theory And Methods: 3 semester hours***

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; ECON 4150; ECON 4100 or LOG OM 5300; MATH 2450 or equivalent. A rigorous review of statistical models and methods relevant to the estimation and testing of economic relationships. Emphasis on the theoretical underpinnings of techniques commonly used for single and multiple equation estimation and hypothesis testing. Topics include ordinary and generalized least squares, robust regression, and simultaneous equations estimation.

***ECON 5110 Topics In Applied Econometrics: 3 semester hours***

Prerequisites: ECON 4100, or ECON 5100 or LOG OM 5300. Concepts and application of advanced econometric techniques. Students will develop a thorough understanding of the appropriateness and application of a variety of state-of-the art techniques. Topics will include specification tests, polynomial distributed lags, discrete choice, pooled time-series cross-section, simultaneous equations and outlier detection.

***ECON 5120 Advanced Topics In Time Series Econometrics: 3 semester hours***

Prerequisites: ECON 4100 or equivalent and a solid foundation in statistics. Application of econometric methods to time-series data. Emphasis on model specification as it applies to macroeconomic or financial data. Advanced topics include: Stationary and nonstationary time-series, seasonality, random walks, unit roots, Dickey-Fuller tests, cointegration, ARCH/GARCH models, and general to specific modeling (ADLs). Specific applications to macro-economics, international economics and/or financial markets.

***ECON 5130 Advanced Topics In Business And Economic Forecasting: 3 semester hours***

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; ECON 4150; ECON 4100 or LOG OM 5300. This course develops the alternative techniques which are used to forecast economic time series. Each forecasting technique will be evaluated in terms of its theoretical soundness and predictive track record. Students will also learn to use these techniques to differentiate among competing economic models.

***ECON 5200 Monetary Theory And Policy: 3 semester hours***

Prerequisites: ECON 3200; ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; and ECON 4150. An examination of how monetary policy has affected the economy in the past and how it can improve economic performance in the future. Topics include: the origins of money, money supply, money demand, the determinants of real and nominal interest rates, the term structure of interest rates, the impact of discretionary monetary policy on the domestic economy and foreign exchange markets, and the domestic economy and foreign exchange markets, and the relationship between monetary policy and federal government deficits.

***ECON 5210 Financial Markets: 3 semester hours***

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002, and ECON 3200. Demand, supply, and flow of funds in allocating credit and distributing risk in the macrofinancial system. The saving investment process, the rationale for financial markets, and the role of financial intermediaries are studied within the framework of the flow of funds accounts. Special attention is given to the operation of money, capital, futures, and foreign financial markets and the impact of public policy on the structure and performance of financial markets.

***ECON 5300 International Trade: 3 semester hours***

Prerequisites: ECON 3001 or BUS AD 5001. Survey of the modern theories of international trade and their applications including factor endowments and other, trade restrictions, foreign investment, trade and economic development, and balance of payments and exchange rates. Discussion of current institutions and economic developments in the global economy.

***ECON 5301 International Monetary Analysis: 3 semester hours***

Prerequisites: ECON 3200 and ECON 3002 or BUS AD 5002. Application of macroeconomic theory to the international monetary system. Topics include the balance of payments, exchange rates, international linkages, world inflation, capital flows, and the gold standard.

***ECON 5400 Labor Economics: Theory And Public Policy: 3 semester hours***

Prerequisites: ECON 3001 or BUS AD 5001. This course examines labor supply, labor demand, and market determination of wages. Topics covered include the effect of technological change on employment, trends in labor force participation, the impact of government taxes and transfers on labor supply, poverty, and its economic consequences, the human capital model and its implications for investment in education and on-the-job training, and theories of economic discrimination and empirical measurement issues. Throughout the course, current public policy debates are examined using the theoretical models developed.



**ECON 5500 Public Sector Microeconomics: 3 semester hours**

Same as P P ADM 6210. Prerequisites: ECON 3001 or BUS AD 5001 and P P ADM 6080. Application of tools of intermediate microeconomics to address public sector issues. Special emphasis is placed on critically analyzing current public policy debates using the models developed. Topics covered include: cases in which competitive market fails to allocate resources efficiently (e.g. externalities and public goods), importance of property rights, incentive effects of the tax and transfer system, and the fundamentals of cost-benefit analysis.

**ECON 5510 Public Choice: 3 semester hours**

Prerequisites: ECON 3001 or consent of instructor. Public choice is the analysis of government and governmental institutions through the logic of economics. It assumes the same principles that economists use to analyze actions in the marketplace, and applies them to actions made in collective decision-making. Topics covered include: the efficiency of democracy, voting methods, the incentives of legislators, bureaucrats and lobbyists, political competition, and public institutions and economic growth.

**ECON 5600 Structure And Performance Of United States Industry: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001; and ECON 4150. An analysis of the functioning of business firms under alternative market arrangements. Topics include: the theory and measurement of monopoly power and the role of economies of scale, product differentiation, and entry conditions in affecting this power; the impact of market power on the pricesetting behavior, advertising and promotional strategies, and technological innovation of firms; the role of government policy in promoting or preventing competition among firms.

**ECON 5630 Economics Of Telecommunications: 3 semester hours**

Prerequisites: ECON 3001, BUS AD 5000 or BUS AD 5001; and ECON 4150 Application of economic theory and techniques to the telecommunications industry. Topics include demand theory for telephone access and use, consumer surplus models for subscription choice, nonlinear pricing strategies including pure and mixed bundling and multi-part tariffs, the incentives of the firm under various regulatory regimes, a comparison of rate-of-return regulation and incentive (price cap) regulation, and the impact of carrier-of-last-resort responsibilities.

**ECON 5640 Transportation Economics: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5000 This course makes use of range of economic concepts to examine the nature of markets in which transport services are provided. This course is designed for future transportation professionals who wish to explore the fundamentals of economics in their field and for graduate students in public policy and economics wishing an economics-based understanding of transportation issues. Basic concepts covered include the theory of transportation demand, transportation costs and investment planning, and current topics in transportation economics such as regulation-deregulation and social cost pricing.

**ECON 5700 Urban and Real Estate Economics: 3 semester hours**

Prerequisites: ECON 3001. Investigate the spatial aspects of urban economics: location theory, market areas, agglomerations, and real estate. The focus is on the description and explanation of the spatial allocation of economic activity with particular attention paid to the role of cities. Topics will include regional development, the growth of cities, firm location decision, spatial externalities, sprawl, and housing markets. Students may not receive credit for both ECON 4700 and ECON 5700.

**ECON 5720 Real Estate Economics: 3 semester hours**

Prerequisites: ECON 3001 and ECON 4100 This course will apply economic theory to analyze the real estate market's micro and macro characteristics. Public policy impacting both the residential and commercial property markets will be discussed using models developed in the course. Topics include price and location theory, growth and growth patterns, urban sprawl, migration, regulation of land and capital, provision of public goods, and non-market valuation econometric modeling. Hands on applications of various non-market econometric models will be provided.

**ECON 5760 Health Economics: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001. This course applies microeconomic theory and statistical techniques to understand decision making in health care markets. The effects of government policies on the health care choices of consumers and providers are identified and quantified; attention is given to federal and state entitlement programs, regulations, tax policies and antitrust enforcement. The role of insurance as a risk-sharing device is explored, along with its implications for pricing and health care utilization.

**ECON 5900 Advanced Topics In Economic Analysis: 3 semester hours**

Prerequisite: Consent of the instructor. Study of a specific economics topic, which may vary from semester to semester. May be taken more than once if the topic is different.

**ECON 5980 Directed Readings: 1-6 semester hours**

Prerequisite: Consent of the instructor. Independent study through readings, reports, research projects, and conferences.

## Geography Courses

**GEOG 1001 Introduction To Geography: 3 semester hours**

An introduction to geography as a social science. The identification and explanation of order in the human landscape. A survey of the social, political, economic, and psychological factors which influence geographic patterns.

**GEOG 1002 World Regions: 3 semester hours**

Survey of the major regions of the world. Designed to give the student an awareness of the character of each of these major regions through the interrelationships of the various attributes of place. Each semester the geographic perspective will be applied in greater depth to one significant country such as Afghanistan, Iraq, or North Korea.

**GEOG 2001 Cultural Geography: 3 semester hours**

This course examines the effect of geography on culture and cultural groups. Essential to the geographic perspective is identifying the effect on cultures of the current trend toward increasing globalization. Topics include language, religion, attitudes, and the effect of technology. The major goals are to increase awareness of the diversity of human cultures and to prepare students for a world of increasing intercultural communication and conflict. Satisfies cultural diversity.

**GEOG 4900 Advanced Readings in Geography: 3 semester hours**

Prerequisite: Consent of Instructor. This course will provide a more in-depth analysis of the various factors which influence geographic patterns employing methods appropriate to graduate level instruction. The topic selected will vary from semester to semester. This course may be taken for credit more than once as long as the topic discussed in each semester is different.

# English

## General Information

### Degrees and Areas of Concentration

The English department offers or participates in offering the B.A. in English, the B.A. in English with certification for secondary teaching, and the B.S. in secondary education with an emphasis area in English. The department also offers a minor in English. Additionally, students with any major in the university may earn a Certificate in Writing so that they may demonstrate evidence of training in creative, journalistic, or technical writing.

The department has a graduate program leading to the Master of Arts degree. Students may pursue a literature track where they acquire a broad coverage in British and American writers or a writing track where half of the course work deals with composition and writing theory. The department also offers the Master of Fine Arts in creative writing, in which half of the courses are writing workshops and independent writing projects. In addition, the department of English participates in a Graduate Certificate in the Teaching of Writing.

### Learning Outcomes

Recipients of the undergraduate degree will demonstrate the following outcomes:

- Demonstrate advanced skills in reading and analyzing texts and a knowledge of literary and rhetorical terms and concepts.
- Demonstrate mastery of content in at least three specific fields in language, literature, and written literacy.
- Demonstrate knowledge of historical and critical context for these fields and the relevance to them of a variety of critical approaches.
- Understand the role played by gender, race, class, and ethnicity (where appropriate) in language, literature, and literacy.
- Demonstrate the ability to write clear analytical essays incorporating both primary textual evidence and secondary scholarly and critical sources.

### Departmental Honors

Candidates for departmental honors in English must achieve a 3.2 average in English at graduation and complete an undergraduate or graduate seminar in English, the final paper for which must be acceptable to the instructor as an honors thesis.

### Career Outlook

In addition to traditional employment as teachers at the primary, secondary, and community-college levels, recent UMSL graduates in English are working in journalism, editing, advertising, public relations, and other fields that place a premium upon creation and interpretation of the written word. Numerous recent English majors have successfully entered law school.

## Undergraduate Studies

### General Education Requirements

All undergraduate english majors must meet the university and college general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>).

English courses may be used to meet the university's humanities requirement, except for the following:

ENGL 1100	First-Year Writing	3
ENGL 1110	First-Year Writing For International Students	3
ENGL 2120	Topics In Writing	3
ENGL 2810	Traditional Grammar	3
ENGL 3090	Writing about Literature	3
ENGL 3100	Junior-Level Writing	3
ENGL 3110	Junior Level Writing For International Students	3
ENGL 3120	Business Writing	3
ENGL 3130	Technical Writing	3
ENGL 3140	News Writing	3
ENGL 3150	Feature Writing	3
ENGL 3160	Writing In The Sciences	3
ENGL 3180	Reporting	3
ENGL 4860	Editing	3
ENGL 4880	Writing For Teachers	3
ENGL 4890	Writing Internship	3
Total Hours		48

The college's foreign language requirement may be met in any language.

### Satisfactory/Unsatisfactory Option

A maximum of 6 satisfactory/unsatisfactory hours may be taken in the department. Majors must complete at least 18 graded (i.e., not satisfactory/unsatisfactory) hours in English courses at the 3000 level or above with a grade point of 2.0 or better in these courses.

English majors may take any English course on a satisfactory/unsatisfactory basis except the following:

ENGL 1100 (p. 136)	First-Year Writing	3
ENGL 1110 (p. 136)	First-Year Writing For International Students	3
ENGL 3090 (p. 136)	Writing about Literature	3
ENGL 3100 (p. 136)	Junior-Level Writing	3
ENGL 3110 (p. 136)	Junior Level Writing For International Students	3
ENGL 3120 (p. 136)	Business Writing	3
ENGL 3130 (p. 136)	Technical Writing	3
ENGL 3140 (p. 136)	News Writing	3
ENGL 3150 (p. 136)	Feature Writing	3
ENGL 3160 (p. 136)	Writing In The Sciences	3
ENGL 3180 (p. 136)	Reporting	3
ENGL 4860 (p. 136)	Editing	3

ENGL 4880 (p. 136)	Writing For Teachers	3
SEC ED 4885 (p. 136)	The Curriculum And Methods Of Teaching English	3
ENGL 4890 (p. 136)	Writing Internship	3

## Degree Requirements

### Bachelor of Arts in English

English majors must complete at least 39, but no more than 48, hours in English exclusive of:

ENGL 1100 (p. 136)	First-Year Writing	3
ENGL 1110 (p. 136)	First-Year Writing For International Students	3
ENGL 3090 (p. 136)	Writing about Literature	3

Students majoring in English must take:

ENGL 2310 (p. 136)	English Literature Before 1790	3
ENGL 2320 (p. 136)	English Literature After 1790	3
ENGL 2710 (p. 136)	American Literature Before 1865	3
ENGL 2720 (p. 136)	American Literature After 1865	3

Plus one of the following:

ENGL 2280 (p. 136)	Contemporary World Literature
ENGL 2330 (p. 136)	Introduction To Poetry
ENGL 2340 (p. 136)	Introduction To Drama

Work in 2000-level course provides background in literary history and forms, as well as the means for discussing literary issues, on paper and orally. Thus:

- ENGL 2310 (p. 136) or consent of instructor is a prerequisite or corequisite for all 4000-level courses in British literature before 1790.
- ENGL 2320 (p. 136) or consent of instructor is a prerequisite or corequisite for all 4000-level courses in British Literature after 1790.
- ENGL 2710 (p. 136) or consent of instructor is a prerequisite or corequisite for all 4000-level courses in American Literature to 1865
- ENGL 2720 (p. 136) or consent of instructor is a prerequisite or corequisite for all 4000-level courses in American literature after 1865.
- Both ENGL 2710 (p. 136) and ENGL 2720 (p. 136) or consent of instructor are prerequisites or corequisites for ENGL 4650 (p. 136).
- All survey courses should be taken before the major has completed 90 hours toward a degree.

1. ENGL 2810 (p. 136), Traditional Grammar (Students with sufficient background may gain exemption from the ENGL 2810 (p. 136) requirement by passing the English-Education Test of Basic Grammar. This test may be taken only twice.)

2. ENGL 3090 (p. 136), Practical Criticism: Writing About Literature. (For English majors, this course is a prerequisite or corequisite for 4000-level courses in English.)
3. Upper Division Courses
  - a. Six courses (18 hours) are required at the 4000 level. Students majoring in English must take all of these hours in residence and maintain a GPA of 2.0 or better, or receive a special consent of the department.
  - b. Within the six courses listed above, three courses must fulfill distribution requirements: one course (3 hours) in British literature before 1790, one course (3 hours) in British literature after 1790, and one course (3 hours) in American literature.
  - c. If a student elects to pursue an emphasis area (EA) or areas, 3 courses (9 hours) at the 3000/4000 level are required within each emphasis area (EA). Only 1 of these courses (3 hours) may be at the 3000 level.
  - d. A student may not use the same course to satisfy both a distribution requirement and an emphasis area (EA).
  - e. In the list of 3000/4000-level courses, those courses that count in one or another emphasis area are indicated with an asterisk\*.

### Distribution Requirements

#### Distribution Requirement: British Literature to 1790

Select one of the following: 3

ENGL 4260 (p. 136)  
Chaucer

ENGL 4270 (p. 136)  
Medieval English Literature

ENGL 4320 (p. 136)  
Sixteenth-Century Poetry and Prose

ENGL 4340 (p. 136)  
Early Seventeenth Century Poetry And Prose

ENGL 4350 (p. 136)  
Milton

ENGL 4370 (p. 136)  
Shakespeare: Tragedies And Romances

ENGL 4380 (p. 136)  
Shakespeare: Comedies And Histories

ENGL 4420 (p. 136)  
Age Of Dryden And Pope

ENGL 4450 (p. 136)  
The Eighteenth-Century English Novel

ENGL 4931 (p. 136)  
English Women Writers, 1300-1750

#### Distribution Requirement: British Literature after 1790

Select one of the following: 3

ENGL 4510 (p. 136)  
Early Romantic Poetry And Prose

ENGL 4520 (p. 136)  
Later Romantic Poetry And Prose

ENGL 4540 (p. 136)  
The Nineteenth-Century English Novel

ENGL 4550 (p. 136)  
Novels into Films: The Nineteenth Century

ENGL 4560 (p. 136)  
Prose And Poetry Of The Victorian Period

ENGL 4580 (p. Literature Of The Late Nineteenth And Early Twentieth Centuries 136)	
ENGL 4750 (p. Modern British Fiction 136)	
ENGL 4934 (p. Austen And The Brontes 136)	
ENGL 4935 (p. Women Heroes And Romantic Tales 136)	
<b>Distribution Requirement: American Literature</b>	
Select one of the following:	3
ENGL 4610 (p. Selected Major American Writers I 136)	
ENGL 4620 (p. Selected Major American Writers II 136)	
ENGL 4640 (p. American Fiction To World War I 136)	
ENGL 4650 (p. Modern American Fiction 136)	
ENGL 4740 (p. Poetry Since World War II 136)	
Total Hours	9

## Emphasis Areas (EA)

### British Literature Emphasis Area

ENGL 4260 (p. Chaucer 136)	3
ENGL 4270 (p. Medieval English Literature 136)	3
ENGL 4320 (p. Sixteenth-Century Poetry and Prose 136)	3
ENGL 4340 (p. Early Seventeenth Century Poetry And Prose 136)	3
ENGL 4350 (p. Milton 136)	3
ENGL 4370 (p. Shakespeare: Tragedies And Romances 136)	3
ENGL 4380 (p. Shakespeare: Comedies And Histories 136)	3
ENGL 4420 (p. Age Of Dryden And Pope 136)	3
ENGL 4450 (p. The Eighteenth-Century English Novel 136)	3
ENGL 4510 (p. Early Romantic Poetry And Prose 136)	3
ENGL 4520 (p. Later Romantic Poetry And Prose 136)	3
ENGL 4540 (p. The Nineteenth-Century English Novel 136)	3
ENGL 4550 (p. Novels into Films: The Nineteenth Century 136)	3
ENGL 4560 (p. Prose And Poetry Of The Victorian Period 136)	3
ENGL 4580 (p. Literature Of The Late Nineteenth And Early Twentieth Centuries 136)	3
ENGL 4750 (p. Modern British Fiction 136)	3

ENGL 4770 (p. Modern Poetry (also American EA) * 136)	3
ENGL 4930 (p. Studies In Gender And Literature (also Women's/ Gender EA) * 136)	3
ENGL 4931 (p. English Women Writers, 1300-1750 136)	3
ENGL 4932 (p. Female Gothic (also Women's/Gender EA) * 136)	3
ENGL 4935 (p. Women Heroes And Romantic Tales 136)	3
ENGL 4936 (p. Tales Of The Islamic East (also Ethnic/World EA) * 136)	3
ENGL 4950 (p. Special Topics In Literature (with at least 50% British emphasis) 136)	3

### American Literature Emphasis Area

ENGL 4060 (p. Adolescent Literature (also Ethnic World EA) * 136)	3
ENGL 4610 (p. Selected Major American Writers I 136)	3
ENGL 4620 (p. Selected Major American Writers II 136)	3
ENGL 4640 (p. American Fiction To World War I 136)	3
ENGL 4650 (p. Modern American Fiction 136)	3
ENGL 4740 (p. Poetry Since World War II 136)	3
ENGL 4770 (p. Modern Poetry (also British EA) * 136)	3
ENGL 4938 (p. American Women Poets Of The 20Th/21St Centuries (also Women/Gender EA) * 136)	3
ENGL 4950 (p. Special Topics In Literature (with at least 50% American emphasis) 136)	3

### Ethnic and World Literature Emphasis Area

ENGL 4060 (p. Adolescent Literature (also American EA) * 136)	3
ENGL 4760 (p. Modern Drama 136)	3
ENGL 4920 (p. Major Works Of European Fiction 136)	3
ENGL 4936 (p. Tales Of The Islamic East (also British EA) * 136)	3
ENGL 4950 (p. Special Topics In Literature (with at least 50% Ethnic/World emphasis) 136)	3

### Women's and Gender Studies Emphasis Area

ENGL 3800 (p. Topics In Women And Literature 136)	3
ENGL 4930 (p. Studies In Gender And Literature (also British EA) * 136)	3
ENGL 4932 (p. Female Gothic (also British EA) * 136)	3
ENGL 4934 (p. Austen And The Brontes 136)	3
ENGL 4938 (p. American Women Poets Of The 20Th/21St Centuries (also American EA) * 136)	3



**Language and Writing Emphasis Area**

ENGL 3140 (p. 136)	News Writing	3
ENGL 3150 (p. 136)	Feature Writing	3
ENGL 3160 (p. 136)	Writing In The Sciences	3
ENGL 3180 (p. 136)	Reporting	3
ENGL 3280 (p. 136)	Public Relations Writing	3
ENGL 4160 (p. 136)	Special Topics In Writing (with at least 50% writing studies emphasis)	3
ENGL 4800 (p. 136)	Linguistics (also Theory/Criticism EA) *	3
ENGL 4810 (p. 136)	English Grammar	3
ENGL 4820 (p. 136)	History Of The English Language	3
ENGL 4850 (p. 136)	Topics In The Teaching Of Writing	1-3
ENGL 4860 (p. 136)	Editing	3
ENGL 4880 (p. 136)	Writing For Teachers	3

**Creative Writing Emphasis Area**

ENGL 3030 (p. 136)	Poetry Writing Workshop	3
ENGL 3040 (p. 136)	Fiction Writing Workshop: Narrative Techniques	3
ENGL 4130 (p. 136)	Advanced Poetry Writing Workshop	3
ENGL 4140 (p. 136)	Advanced Fiction Writing Workshop	3
ENGL 4160 (p. 136)	Special Topics In Writing (with at least 50% creative writing emphasis)	3
ENGL 4895 (p. 136)	Editing "Litmag"	3

**Theory and Criticism Emphasis Area**

ENGL 4030 (p. 136)	Contemporary Critical Theory	3
ENGL 4050 (p. 136)	Forms And Modes Of Poetry	3
ENGL 4080 (p. 136)	Narrative, Cognition, And Emotion	3
ENGL 4160 (p. 136)	Special Topics In Writing (with at least 50% theory/criticism emphasis)	3
ENGL 4800 (p. 136)	Linguistics (also Language/Writing EA) *	3

\* Denotes course listed in two emphasis areas.

Students should consult with faculty advisers to determine which upper-level courses best satisfy their major needs and interests.

**Bachelor of Arts in English with Certification for Secondary Education**

All candidates for certification to teach English must enroll in a program in the College of Education involving Level I, Level II, and Level III coursework plus student teaching. See the Division of Teaching and Learning in this Bulletin for information.

In addition to the requirements for the B.A. in English, students must meet the following requirements for secondary certification:

Two courses in American literature. This requirement may be met by courses counted for the major.

American literature must include a unit or course in the literature of ethnic groups.

American literature must include a unit or course in literature for adolescents.

Twelve hours in composition and rhetoric:

ENGL 1100	First-Year Writing (may be counted)	3
ENGL 3090	Writing about Literature (is required)	3
ENGL/SEC ED 4880	Writing For Teachers (is required)	3
Recommended courses include creative writing, journalism, and business writing		3

Total Hours 12

English language requirements

1. ENGL 2810, Traditional Grammar Students with sufficient background may gain exemption from the ENGL 2810 requirement by passing the English-Education Test of Basic Grammar. This test may be taken only twice. Certification candidates must pass ENGL 2810 or the Test of Basic Grammar before applying for student teaching.
2. ENGL 4810, English Grammar
3. ENGL 4800, Linguistics, or ENGL 4820, History of the English Language

**Bachelor of Science in Secondary Education with an Emphasis Area in English**

All candidates for certification to teach English must enroll in a program in the College of Education involving Level I, Level II, and Level III coursework plus student teaching. See the Division of Teaching and Learning in this Bulletin for information.

The required courses in English and professional education are the same as those for the B.A. with certification for secondary education. However, students fulfill the general education requirements of the College of Education rather than those of the College of Arts and Sciences. For example, students seeking the B.S. in Education are not required to study a foreign language.

## Certification to Teach Secondary Speech and Drama

All candidates for certification to teach Speech and Drama must enroll in a program in the College of Education involving Level I, Level II, and Level III coursework plus student teaching. See the Division of Teaching and Learning in this Bulletin for information.

In addition, undergraduates who wish to be certified to teach Speech and Drama must meet the requirements for a major in Communication as well as requirements set by the Theatre faculty.

## Minor in English

A student may minor in English by taking at least 18 hours of English courses exclusive of Basic Writing, ENGL 1100, First Year Writing, and ENGL 1110, First Year Writing for International Students. ENGL 3090 is required, and 12 of the 18 hours must be in literature courses, 9 of which must be in courses at the 3000 or 4000 level. Every student taking a minor in English must consult with an adviser in the English department to ensure a coherent program of studies. The GPA in courses for the minor must be 2.0 or better. Nine of the 18 hours must be taken in residence at UMSL. No more than 3 hours taken on a satisfactory/unsatisfactory basis may be counted toward the 18-hour minimum.

## Professional Writing Certificate

Students earn the Professional Writing Certificate by completing 18 hours in selected writing courses with a grade point average of 3.0 or better. Twelve of the 18 hours must be taken at the University of Missouri-St. Louis. Courses may not be taken on a satisfactory/unsatisfactory basis.

Students who wish to pursue a technical writing emphasis should contact the Coordinator for information about appropriate courses and internships.

### Professional Writing Courses

MEDIA ST 2212	Broadcast Writing And Reporting	3
ENGL/MEDIA ST 2080	Advertising Copywriting	3
ENGL 3140/ MEDIA ST 3214	News Writing	3
ENGL/MEDIA ST 3150	Feature Writing	3
ENGL 3180	Reporting	3
ENGL 3280/ MEDIA ST 2228	Public Relations Writing	3
ENGL 4160	Special Topics In Writing	3
ENGL 4810	English Grammar	3
ENGL 4850	Topics In The Teaching Of Writing	1-3
ENGL 4860	Editing	3
ENGL 4870	Advanced Business And Technical Writing	3
ENGL 4880	Writing For Teachers	3

### Academic Writing Courses

ENGL 2120	Topics In Writing	3
ENGL 2810	Traditional Grammar	3
ENGL 3090	Writing about Literature	3
ENGL 3100	Junior-Level Writing	3
HONORS 3100	Honors Advanced Composition: Writing The City	3
ENGL 3110	Junior Level Writing For International Students	3

ENGL 3120	Business Writing	3
ENGL 3130	Technical Writing	3
ENGL 3160	Writing In The Sciences	3

### Creative Writing Courses

Students may take up to 2 creative writing courses.

ENGL 2040	Beginning Fiction Writing	3
ENGL 3030	Poetry Writing Workshop	3
ENGL 3040	Fiction Writing Workshop: Narrative Techniques	3
ENGL 4130	Advanced Poetry Writing Workshop	3
ENGL 4140	Advanced Fiction Writing Workshop	3
ENGL 4895	Editing "Litmag"	3

### Capstone Course

ENGL 4890	Writing Internship (Required. Usually taken as the last course in the program. Must include an extensive final project.)	3
ENGL 4892	Independent Writing Project	3

When the student has completed requirements for the certificate, the coordinator will notify the university registrar and the college from which the student will graduate. Upon the student's graduation, completion of the Professional Writing Certificate will be noted on the official transcript and a certificate will be mailed to the student's residence. Students who have graduated before completing the Professional Writing Certificate will receive the certificate in the mail and will have the certificate entered on their official transcripts.

## Creative Writing Certificate

Students earn the Certificate in Writing by completing 18 hours in selected writing courses with a grade point average of 3.0 or better. Twelve of the 18 hours must be taken at the University of Missouri-St. Louis. Courses may not be taken on a satisfactory/unsatisfactory basis.

Students in the creative writing emphasis produce original fiction or poetry. Courses in creative nonfiction, editing, feature writing and copywriting may also be taken for this emphasis.

Students should choose courses for the certificate with the guidance of the Writing Certificate Coordinator. Students electing English 4890 as part of the certificate should meet with the coordinator to arrange the internship.

To receive this certificate, the student must take 18 hours chosen from the courses listed below.

Select at least two of the following courses (at least one must be a 4000-level course): 6

ENGL 3030	Poetry Writing Workshop	3
ENGL 3040	Fiction Writing Workshop: Narrative Techniques	3
ENGL 4130	Advanced Poetry Writing Workshop	3
ENGL 4140	Advanced Fiction Writing Workshop	3
ENGL 4895	Editing "Litmag"	3

### 2000-level Courses

Students may take no more than two 2000-level courses.

ENGL 2040	Beginning Fiction Writing	3
ENGL 2330	Introduction To Poetry	3
ENGL 2340	Introduction To Drama	3

### Creative Writing Courses

ENGL 3030	Poetry Writing Workshop	3
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ENGL 3040	Fiction Writing Workshop: Narrative Techniques	3
ENGL 3090	Writing about Literature	3
ENGL 3100	Junior-Level Writing	3
ENGL 4130	Advanced Poetry Writing Workshop	3
ENGL 4140	Advanced Fiction Writing Workshop	3
ENGL 4160	Special Topics In Writing	3
ENGL 4890	Writing Internship	3
ENGL 4892	Independent Writing Project	3
ENGL 4895	Editing "Litmag"	3

#### Professional Writing Courses

Students are encouraged to take at least one professional writing course, but no more than two.

ENGL/MEDIA ST 2080	Advertising Copywriting	3
ENGL/MEDIA ST 3150	Feature Writing	3
ENGL 4860	Editing	3

Students may use ENGL 4895, ENGL 4890, ENGL 4140, or ENGL 4130 as their capstone course. If ENGL 4890 is used, it will be an internship in literary publishing, feature writing, or advertising copywriting. To use ENGL 4130 or ENGL 4140, the student must obtain the teacher's permission and do extra work in the course. The Editing Litmag course, ENGL 4895, may also be used as the final course for this certificate.

When the student has completed requirements for the certificate, the coordinator will notify the university registrar and the college from which the student will graduate. Upon the student's graduation, completion of the Creative Writing Certificate will be noted on the official transcript and a certificate will be mailed to the student's residence. Students who have graduated before completing the Creative Writing Certificate will receive the certificate in the mail and will have the certificate entered on their official transcripts.

## Technical Writing Emphasis

The technical writing emphasis provides a more career-specific strategy for students enrolled in the Writing Certificate program. The technical writing emphasis is composed of:

#### Required Courses

ENGL 3130	Technical Writing	3
ENGL 4860	Editing	3
ENGL 4890	Writing Internship	3

#### Electives

Select three of the following: 9

##### Business Administration

INFSYS 1800 Computers And Information Systems

##### Media

MEDIA ST 106:Internet Media

##### Computer Science

CMP SCI 1250 Introduction To Computing <sup>1</sup>

##### English

ENGL 3120 Business Writing

ENGL 3140 News Writing

ENGL 3150 Feature Writing

ENGL 3160	Writing In The Sciences	
ENGL 3280	Public Relations Writing	
ENGL 4890	Writing Internship <sup>3</sup>	
Total Hours		18

<sup>1</sup> Prerequisite: MATH 1030, College Algebra

<sup>2</sup> If ENGL 4890 is taken as requirement.

## Graduate Studies

### Admission Requirements

To enter the graduate program in English a candidate must satisfy the requirements both of the Graduate School and the Department of English. A candidate should have a bachelor's degree, with at least 18 hours in English above the freshmen level, 12 of which must be in literature. Normally, only students with a grade point average of 3.0 in undergraduate English courses and an overall undergraduate average of 2.75 will be considered. Though the English department welcomes scores from the Graduate Record Aptitude Exam and letters of recommendation, it does not require either of these. (Students applying for Teaching Assistantships, please see "Financial Aid and Teaching Assistantships.")

The graduate coordinator of the English Department with the advice of the graduate committee will use the undergraduate record and, and if available, the scores of the GRE general test as the basis for a decision. We welcome letters of recommendation from the applicant's former English instructors and a sample of expository prose. Applications to the MA in English are considered at all times. However, because spaces in graduate courses are limited, it is strongly advised that prospective students submit their applications well before the semester begins in order to gain admission into their appropriate classes.

### Teaching Assistantships

A number of teaching assistantships are available for qualified applicants. In addition to the undergraduate record and the scores on the GRE general test, applications should include two letters of recommendation from former English instructors. Applications should be submitted to the graduate coordinator of the English department no later than March 15 preceding the academic year for which the appointment is desired.

## Degree Requirements

### Master of Arts in English

In addition to the Graduate School requirements, students must complete at least 36 hours, 24 hours of which must be in 5000-level courses. Twelve hours may be taken in 4000-level courses approved by the department and Graduate School.

Required of both concentrations, literature and writing studies:

- ENGL 5000 (p. 136): Introduction to Graduate Study in English. Focuses upon bibliography, research methods, and literary criticism. Should be taken at the outset of the program, for graduate (not undergraduate) credit.

Students who choose a literature track must also take at least one course in each of the following six areas:

- Area 1, British literature before 1660
- Area 2, British literature between 1660 and 1900

- Area 3, Twentieth-century literature (British, American, post-colonial, or in translation)
- Area 4, American literature
- Area 5, Theories of writing, criticism, language, and/or culture
- Area 6, Literature in translation study of a particular literary genre, or a course in another relevant discipline

Students who choose the writing studies track must take:

- 18 hours in literature courses providing broad coverage rather than a narrow focus on a particular genre or historical period (ENGL 5000 (p. 136) constitutes three of these required literature credits)
- 18 hours in writing studies courses (including ENGL 5840 (p. 136))

If students choose the thesis option (6 hours) they will take 15 hours in literature and 15 hours in writing studies.

## Thesis Options

Students may elect the thesis option, which requires a total of 6 hours of thesis credit. The thesis will engage the student in sustained and self-motivated study through the processes of research, conferring with advisors, drafting and revising text. The thesis must be approved and assigned a grade by a thesis committee. The student will select a major professor who, after consulting with the chair and the graduate coordinator, will select two other members of the committee.

**Literature Emphasis:** The thesis should demonstrate original thought and substantial research and may be a critical study of literary works or a theoretical exploration of issues related to literature.

**Writing Studies Emphasis:** The final document will demonstrate significant familiarity with scholarship in Writing Studies through the critical analysis and clear synthesis of published research, observational data (where appropriate) and the student's thoughts/views/reflections/positions. The thesis may be a critical study, theoretical exploration or descriptive assessment of fieldwork drawing on writing, language, rhetorical, socio-cultural or reading theories; literacy; and the history of writing instruction; composition pedagogies; technologies.

## Master of Fine Arts in Creative Writing

The application process is identical to that for the master of arts degree, with these exceptions: there is one annual deadline for all applications, Feb. 15; a writing sample is required (15-20 poems or 20-40 pages of fiction); the GRE test is required only if the applicant seeks financial aid or a teaching assistantship.

In addition to the Graduate School requirements, students must complete at least 39 hours, 30 of which must be in 5000-level courses. Nine hours may be taken in 4000-level courses approved by the department and Graduate School. Students will specialize in one genre, poetry or fiction. They must complete the following course work: 15 hours of workshops, three hours of literary journal editing (ENGL 5190 (p. 136)), 3 hours of either ENGL 5170 (p. 136) or ENGL 5180 (p. 136) depending on specialization (fiction writers take ENGL 5170 (p. 136) and poets take ENGL 5180 (p. 136)), 3 hours thesis (ENGL 6010 (p. 136)). Total designated hours, 24. Any of the following can make up the remaining 15 hours, but we especially recommend the first three:

1. ENGL 5180 (p. 136) for fiction writers and ENGL 5170 (p. 136) for poets, the opposite of the students' specialization.
2. A contemporary literature class offered by the MFA program or the MA program

3. A composition theory course, recommended mainly for those who want to teach later
4. another workshop
5. ENGL 5190 (p. 136), literary journal editing, a second time
6. Any other graduate level class in literature, linguistics, or composition offered by the Department of English
7. 5200-MFA readings course, or an independent study-IF you can find someone to work with you.
8. Up to 3 (9 hours) of 4000 level undergrad lit or linguistics classes offered by the Department of English, recommended especially for those without an English background.
9. One three hour class outside the Department of English, at least a 4000 level, and with all needed permissions from both departments that will enhance the student's writing.

Complete information may be found in The Master of Fine Arts in Creative Writing, available from the English department.

## Graduate Certificate in the Teaching of Writing, Gateway Writing Project.

Jointly housed in the Division of Teaching and Learning and the Department of English, this Graduate Certificate prepares teachers at all levels (K-12, college, adult) to improve their students' performance in writing. The program also emphasizes using writing as a means to promote learning in all content areas. All courses provide opportunities for teachers to write, revise, share feedback, and reflect on their own writing development. Based on the National Writing Project's core belief that teachers of writing must themselves be writers, the Graduate Certificate in the Teaching of Writing brings together sound pedagogy, composition theory, and writing practice.

The Certificate is an 18-hour program through the Gateway Writing Project (GWP); it may also be coordinated with other graduate programs. Certificate courses may be applicable to the M.A. in English with emphasis in composition or to various M.Ed. programs. The GWP Certificate is especially appropriate for post-master's candidates who wish to pursue a specialization in teaching writing. The Graduate Certificate in the Teaching of Writing requires a 12 semester-hour core of courses developed by the Gateway Writing Project: The GWP invitational institute (6 hrs), a designated "topics" course (3 hrs.), and an exit course (3 hrs.). The Certificate requires a minimum of 12 semester hours at the 5000 or 6000 level or above. Electives (6 hrs.) may be chosen from approved offerings in English or Education.

## Admission

Applicants must be admitted to Graduate School and be selected by the faculty admissions committee for the Gateway Writing Project's Certificate in the Teaching of Writing. The committee will review candidates on the basis of an interview, an application essay, and supporting documentation. Criteria include experience teaching writing at any level and academic record, especially in writing and the teaching of writing.

## Prerequisites

ENGL/SEC ED 4880 (p. 136)	Writing For Teachers (or an equivalent course in teaching writing)	3
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Coursework or competency in basic computer application.



## Required Core Courses

ENGL 4850/ Topics In The Teaching Of Writing (designated TCH ED 5850 (p. 136)	3
ENGL 6880 (p. 136) Gateway Writing Project	6
TCH ED 6890 (p. 136) Seminar In Professional Writing For Teachers (exit course)	3
<b>Total Hours</b>	<b>12</b>

## Electives

Electives may be chosen from other Gateway Writing Project offerings or from courses offered by the appropriate academic department with advisor's approval. These electives must include at least one more 5000-6000 level course.

Electives	6
Suggested electives applicable to an MA in English with writing emphasis:	
ENGL 5800 (p. 136) Modern Linguistics	
ENGL 5840 (p. 136) Theories Of Writing	
ENGL 5860 (p. 136) Writing/Reading Theory	
ENGL 5870 (p. 136) Composition Research	
ENGL 5890 (p. 136) Teaching College Writing	
Suggested electives applicable to an M.Ed. in Elementary or Secondary Education ELE:	
ELE ED 6387 Literacy Acquisition And Learning For Diverse (p. 136) Students	
ELE ED 6482 Problems And Research In Teaching Elementary (p. 136) School	
ED REM 6714 Action Research In Education (p. 136)	
<b>Total Hours</b>	<b>6</b>

Courses in adult and higher education may also be appropriate. For complete information, see The GatewayWriting Project's Graduate Certificate in Teaching Writing, available from the English Department, the Division of Teaching and Learning, and the GWP Director.

## Sample Four Year Plan

<b>First Year</b>			
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>	<b>Hours</b>
INTDSC 1003 <sup>1</sup>		1 Foreign Language 1002	5
ENGL 1100		3 ENGL 2720	3
MATH 1020 or 1030		3 ENGL 2810	3
Foreign Language 1001		5 Elective or minor	1
General Education		3 General Education	3
		<b>15</b>	<b>15</b>

<b>Second Year</b>			
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>	<b>Hours</b>
ENGL 2320		3 ENGL 2310	3
ENGL 2280, 2510, or 2520		3 ENGL 2710	3
Foreign Language 2101		3 General Education	9
General Education		3	
Elective or minor		3	
		<b>15</b>	<b>15</b>
<b>Third Year</b>			
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>	<b>Hours</b>
ENGL 3090		3 ENGL British Literature after 1790 course	3
General Education		3 ENGL America Literature course	3
Elective or minor		3 ENGL Emphasis Area	3
ENGL British Literature to 1790 course		3 Elective or minor	6
ENGL emphasis area		3	
		<b>15</b>	<b>15</b>
<b>Fourth Year</b>			
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>	<b>Hours</b>
ENGL 4000+ level course		3 ENGL 4000+ level course	3
ENGL emphasis area		3 ENGL emphasis area	3
Elective or minor		9 Elective or minor	9
		<b>15</b>	<b>15</b>
<b>Total Hours: 120</b>			

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.

Courses in this section are grouped as follows: Composition; Language; Literature; and Special Offerings.

## Composition Courses:

### **ENGL 1100 First-Year Writing: 3 semester hours**

Integrates critical reading, writing, and thinking skills and studies actual writing practices. Sequenced reading and writing assignments build cumulatively to more complex assignments. Includes formal and informal writing, drafting and revising, editing for correctness, synthesizing source material, and documenting sources accurately. Fulfills 3 hours of the General Education requirement for Communicating Skills. Does not count toward the major in English.

**ENGL 1110 First-Year Writing For International Students: 3 semester hours**

Prerequisite: Essay proficiency test or a TOFEL score off 500 or above. Designed for any student whose first language is not English. Integrates critical reading, writing, and thinking skills and studies actual writing practices. Sequenced reading and writing assignments build cumulatively to more complex assignments. Includes formal and informal writing, drafting and revising, editing for correctness, synthesizing source material, and documenting sources accurately. Special attention given to verb tenses, idioms, articles, and syntax. Does not count toward the major in English. Substitutes for ENGL 1100 in all university requirements.

**ENGL 3100 Junior-Level Writing: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent (3-6 credit hours) and 56 credit hours. Focuses on writing and literacies in various contexts. Builds on intellectual maturity, knowledge, and abilities gained through prior university studies. Enhances analytical, communicative, persuasive, and explanatory capabilities. Includes complex readings and research. Fulfills the university's requirement for a junior-level course in Communicative Skills. Counts toward the Certificate in Writing. May not be taken on a satisfactory/unsatisfactory basis.

**ENGL 3110 Junior Level Writing For International Students: 3 semester hours**

Prerequisites: ENGL 1110 or equivalent (3-6 credit hours) and 56 credit hours. Designed for any student whose first language is not English. Builds on intellectual maturity, knowledge, and abilities gained through prior university studies. Enhances analytical, communicative, persuasive, and explanatory capabilities in contemporary American English. Includes formal research and documentation methods from a variety of fields. Emphasizes students' reading abilities, both comprehension and vocabulary. Fulfills the university's requirement for a junior-level course in Communicative Skills. Counts toward the Certificate in Writing. May not be taken on a satisfactory/unsatisfactory basis.

**Writing Courses:****ENGL 1100 First-Year Writing: 3 semester hours**

Integrates critical reading, writing, and thinking skills and studies actual writing practices. Sequenced reading and writing assignments build cumulatively to more complex assignments. Includes formal and informal writing, drafting and revising, editing for correctness, synthesizing source material, and documenting sources accurately. Fulfills 3 hours of the General Education requirement for Communicating Skills. Does not count toward the major in English.

**ENGL 1110 First-Year Writing For International Students: 3 semester hours**

Prerequisite: Essay proficiency test or a TOFEL score off 500 or above. Designed for any student whose first language is not English. Integrates critical reading, writing, and thinking skills and studies actual writing practices. Sequenced reading and writing assignments build cumulatively to more complex assignments. Includes formal and informal writing, drafting and revising, editing for correctness, synthesizing source material, and documenting sources accurately. Special attention given to verb tenses, idioms, articles, and syntax. Does not count toward the major in English. Substitutes for ENGL 1100 in all university requirements.

**ENGL 2040 Beginning Fiction Writing: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent. An introduction to the writing of fiction and an exploration of contemporary short stories as models for the writer. Students who have taken English 2060 may not take ENGL 2040 for credit. The course counts toward the Certificate in Writing.

**ENGL 2080 Advertising Copywriting: 3 semester hours**

Same as MEDIA ST 2080. To give students a hands-on approach for writing advertising material for print and broadcast against tight deadlines in a professional setting.

**ENGL 2120 Topics In Writing: 3 semester hours**

Prerequisite: ENGL 1100 or ENGL 1110. This course will introduce the student to writing in specific areas. The department will announce topics and course content in the schedule. Possible topics are argumentation, reading and writing about public affairs, sports reporting and writing, and writing about science. A student may repeat the course once when topics are different. The course counts toward the certificate in writing.

**ENGL 3030 Poetry Writing Workshop: 3 semester hours**

Prerequisite: ENGL 1100 or the equivalent or consent of instructor. Workshop in poetry writing that may also focus on close reading of published works and poetic forms. May be repeated once for a total of 6 credit hours. Counts toward the Certificate in Creative Writing, and if taken twice, the second time counts toward the Emphasis in Creative Writing for English majors.

**ENGL 3040 Fiction Writing Workshop: Narrative Techniques: 3 semester hours**

Prerequisite: ENGL 2040 or ENGL 2060 or the equivalent or consent of instructor. Workshop in fiction writing. The course counts toward the Certificate in Writing.

**ENGL 3090 Writing about Literature: 3 semester hours**

Prerequisites: ENGL 1100 Or Equivalent (3-6 credit hours) and 56 credit hours. Acquaints students with the basic methods of literary criticism and trains them in explicating particular texts and writing about literature. Introduces students to basic research and proper MLA documentation. Required of all English majors. Does not count toward the major in English. May not be taken on satisfactory/unsatisfactory option. Counts toward the Certificate in Writing.

**ENGL 3100 Junior-Level Writing: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent (3-6 credit hours) and 56 credit hours. Focuses on writing and literacies in various contexts. Builds on intellectual maturity, knowledge, and abilities gained through prior university studies. Enhances analytical, communicative, persuasive, and explanatory capabilities. Includes complex readings and research. Fulfills the university's requirement for a junior-level course in Communicative Skills. Counts toward the Certificate in Writing. May not be taken on a satisfactory/unsatisfactory basis.

**ENGL 3110 Junior Level Writing For International Students: 3 semester hours**

Prerequisites: ENGL 1110 or equivalent (3-6 credit hours) and 56 credit hours. Designed for any student whose first language is not English. Builds on intellectual maturity, knowledge, and abilities gained through prior university studies. Enhances analytical, communicative, persuasive, and explanatory capabilities in contemporary American English. Includes formal research and documentation methods from a variety of fields. Emphasizes students' reading abilities, both comprehension and vocabulary. Fulfills the university's requirement for a junior-level course in Communicative Skills. Counts toward the Certificate in Writing. May not be taken on a satisfactory/unsatisfactory basis.

**ENGL 3120 Business Writing: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent (3-6 hours) and junior standing. This course further develops the experienced writer's style and analytical capabilities to the level of sophistication necessary for upper-division writing assignments and for business and professional settings. Writing assignments may include business correspondence, reports, resumes, proposals, analyses, feasibility studies, and articles for in-house publications. The course emphasizes clarity, conciseness, organization, format, style, tone and mechanical correctness; expands upon students' research and documentation skills; and requires research in university libraries. Fulfills the University's requirement for a junior-level course in communicative skills. It may not be taken on a satisfactory/unsatisfactory basis.

**ENGL 3130 Technical Writing: 3 semester hours**

Prerequisite: ENGL 1100 or equivalent (3-6 hours) and junior standing. The major elements of industrial technical writing. Writing assignments include technical definitions, abstracts and summaries, mechanism descriptions, instructions, process analyses, technical reports and proposals. Emphasis is placed on clarity, conciseness, organization, format, style and tone. The course includes an introduction to research methods and documentation. All readings are selected from industrial material. Fulfills the University requirement for junior-level course in communicative skills, subject to the approval of the student's major department. May not be taken on the satisfactory/unsatisfactory option.

**ENGL 3140 News Writing: 3 semester hours**

Same as MEDIA ST 3214. Prerequisite: ENGL 1100 or equivalent. An introduction to news writing and reporting. Course covers basic components of news, reporting principles, and news writing style and structure. Daily writing assignments include coverage of speeches, meetings and interviews, accidents, deaths, courts, sports, consumer affairs and government. Emphasis on clarity, accuracy and speed. The course counts toward the Certificate in Writing.

**ENGL 3150 Feature Writing: 3 semester hours**

Same as MEDIA ST 3150. Prerequisite: ENGL 1100 or equivalent. Study of freelance and staff-written magazine or newspaper feature articles. Emphasis on relationship between types of publication and article content, research methods, and writing style. Frequent short assignments -- journal entries, interviews, library projects, article critiques, and market reports -- lead to production of full-length feature articles. May not be taken on the S/U option. The course counts toward the Certificate in Writing.

**ENGL 3160 Writing In The Sciences: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent (3-6 hours) and junior standing. Designed to teach students how to write effectively in the sciences. Writing assignments include short reports, proposals and a major project. Students are encouraged to select projects that will reflect work in a science course which may include a research or analytical report, a formal proposal or a procedures/instructions manual. Emphasis is placed on clarity, conciseness, organization, format, style, and tone. The course will include an introduction to research methods and documentation. Fulfills the University requirement for a junior-level course in communicative skills, subject to the approval of the student's major department. May not be taken on the satisfactory/unsatisfactory option.

**ENGL 3180 Reporting: 3 semester hours**

Same as MEDIA ST 3180. Prerequisite: ENGL 3140 or equivalent. Theory and practice of reporting news for publication in the print media. Includes one classroom session and one field assignment weekly. Stories must be filed within deadline limits. Writing emphasis is on clarity, conciseness, and accuracy. The course counts toward the certificate in writing.

**ENGL 3280 Public Relations Writing: 3 semester hours**

Prerequisite: ENGL 3100 or equivalent. An introduction to the process of planning, producing, and evaluating written public relations messages. Writing assignments include media releases, letters, memos, position papers, background papers, brochures, and reports and proposals.

**ENGL 4130 Advanced Poetry Writing Workshop: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent; ENGL 2030 or ENGL 3030 or consent of instructor. Advanced workshop in poetry writing. The course counts toward the Certificate in Writing.

**ENGL 4140 Advanced Fiction Writing Workshop: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent; ENGL 2040 or equivalent or consent of instructor. Advanced workshop in fiction writing. The course counts toward the certificate in Writing.

**ENGL 4160 Special Topics In Writing: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent. Special topics in writing that are not covered in other 4000-level English courses. Since the topics of ENGL 4160 may change each semester, the course may be repeated for credit if the topics are substantially different.

**ENGL 4850 Topics In The Teaching Of Writing: 1-3 semester hours**

Same as TCH ED 5850. Prerequisites: ENGL 3100 or equivalent. Special topics in the practice of and pedagogy of writing designed for in-service teachers. Topics may include writing at specific grade levels, writing/reading workshops, writing in urban settings, writing across the curriculum, action research, new technology, classroom and district-level assessment. May be repeated once for credit if topics differ. Counts toward Certificate in Writing.

**ENGL 4860 Editing: 3 semester hours**

Prerequisites: ENGL 3100 or its equivalent as judged by instructor; English ENGL 2810 or ENGL 4810. Introduction to the language and processes of editing. Includes copy editing, the study of style manuals, and an overview of the production process. Counts toward requirement for the Writing Certificate.

**ENGL 4880 Writing For Teachers: 3 semester hours**

Same as SEC ED 4880. Prerequisite: ENGL 3090 or junior level English. Writing for Teachers is an English-education course that supports writing across the curriculum for both pre-service English and content area teachers. Teacher candidates learn writing theories and literacy strategies to help their future students construct meaning from their discipline. The course works best for those who are completing level II or beginning level III education courses. The course counts toward the Certificate in Writing.

**ENGL 4890 Writing Internship: 3 semester hours**

Prerequisites: ENGL 3100 or its equivalent as judged by the instructor. Course limited to students who are completing certificates in writing. May be taken concurrently with the final course in the certificate sequence. Students work in a supervised internship to complete professional writing assignments. Special consent form required.

**ENGL 4892 Independent Writing Project: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent as judged by instructor. Course limited to students who are completing their certificates in writing. May be taken concurrently with the final course in the certificate sequence. Students work individually with an instructor to complete an extensive creative writing or critical analysis writing project. This course is available on a limited basis only with the approval of the Coordinator and faculty sponsor. Special consent form is required.

**ENGL 5100 Graduate Workshop In Poetry: 3 semester hours**

Prerequisites: Open to students in the creative writing program and to others with permission of instructor. Consists of a writing workshop in which the poetry written by the students enrolled in the course is discussed and analyzed by the instructor and members of the class. Students taking this course will be expected to write original poetry throughout the course. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5110 Graduate Workshop In Fiction: 3 semester hours**

Prerequisites: Open to students in the creative writing program and to others with permission of instructor. Consists of a writing workshop in which the fiction (short stories or chapters of a novel) written by the students enrolled in the course is discussed and analyzed by the instructor and members of the class. Students taking this course will be expected to write original fiction throughout the course. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5130 Graduate Workshop In The Novel: 3 semester hours**

Prerequisites: Permission of instructor, based on submission of sample of novel manuscript. A writing workshop in which a novel written by the student is discussed and analyzed by the instructor and members of the class. Students must have a complete novel manuscript (50,000 words minimum) ready for discussion by the beginning of class. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5140 Graduate Workshop In Nonfiction: 3 semester hours**

Prerequisites: Open to students in the MFA program and to others with permission of instructor. A variable-topics writing workshop focusing on one or more of the following forms: personal essay, memoir, travel writing, literary journalism, biography, or other types of literary nonfiction. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5150 Magical Realism Workshop: 3 semester hours**

Prerequisites: Open to students in the MFA Program and other graduate students with consent of instructor. Half of this course will be a study of the classic texts of magical realism and the other half will be a fiction workshop in which the members of the class will write in this imaginative and symbolic genre. Non-MFA students will write a critical study of magical realism.

**ENGL 5170 Techniques, Methods, And Effects In Fiction Writing: 3 semester hours**

Prerequisite: Open to students in the MFA program and to others with consent of the instructor. This course analyzes the technical choices made by important contemporary fiction writers in the areas of point of view, tone, setting, form, and plot structure, and it examines the effects of those choices. Close consideration is given to fictional techniques that contribute to a story's characterization, tension, interest, reliability, drama, irony, and humor. The course is primarily for creative writers.

**ENGL 5180 Form And Theory Of Poetry: 3 semester hours**

Prerequisites: Open to students in the MFA Program and other graduate students with consent of instructor. This course explores various aspects of traditional and contemporary poetry. The student will gain an understanding of formal poetry-rhyme and meter-as well as of traditional types of poetry, for example, the lyric and the narrative. Throughout the course, an emphasis will be maintained on free verse and a greater understanding of its practice. Students will read selectively in the poetry, theory, and critical approaches of various periods, for example, the romantic and the modern, and within various movements, such as the symbolist or confessional.

**ENGL 5190 Literary Journal Editing: 3 semester hours**

Prerequisites: Open to students in the MFA program who have had at least two graduate writing workshops and to others with consent of the instructor. In this course students serve as the first readers of all submissions to the university's literary magazine, *Natural Bridge*. Students will read and evaluate poems, short stories, and essays and recommend a body of work to the editorial board of the magazine. The editorial board will then consider the class consensus in its final selection of material for publication. In addition to this primary task of editorial selection, students will also be involved in the productions of an issue of the magazine. May be repeated for maximum graduate credit of nine hours.

**ENGL 5200 MFA Readings: 3 semester hours**

Prerequisites: Open to students in the MFA program and to others with consent of the instructor. This is an independent reading course. In consultation with an MFA faculty member, students choose works from the MFA Reading List and read them with the goal of broadening and sharpening their technical skills as writers. Students ordinarily choose works in one genre: poetry, the short story, or the novel. Each week the student reads and reports on at least one work. The course may be taken only once.

**ENGL 5840 Theories Of Writing: 3 semester hours**

An analysis of major modern theories in composition.

**ENGL 5850 Studies In Composition: 3 semester hours**

The study of special topics in composition. Topics may include history of composition, psychology of writing, reader response theory, etc.

**ENGL 5860 Writing/Reading Theory: 3 semester hours**

This course studies the parallel evolution of reading and writing theory and pedagogy. Topics include the influence of psycholinguistics and reader-response theory and the link between reading and writing theory and instruction.

**ENGL 5870 Composition Research: 3 semester hours**

This course equips students both to analyze and conduct research in composition. Coursework will teach students to evaluate methodologies and implications, to analyze data, and to design their own research projects.

**ENGL 5890 Teaching College Writing: 3 semester hours**

This course provides the opportunity for practical application of composition theory with an emphasis on improving teaching skills. Strongly recommended for graduate teaching assistants.

**ENGL 6880 Gateway Writing Project: 3-6 semester hours**

Same as TCH ED 6880. An intensive course in the writing process and the writing curriculum, designed for experienced teachers. Readings of current theory and research will be related to participants' experience as writers and as teachers. Topics may vary. May be repeated for credit. No more than 6 hours may be applied toward the M.Ed. Counts toward the Graduate Certificate in Teaching Writing.

## Language Courses:

**ENGL 2810 Traditional Grammar: 3 semester hours**

An introduction to the terms and concepts of traditional grammar, beginning with functions of the noun and forms of the verb in simple sentences, moving to more complex structures such as subordinate clauses and verbal phrases, and ending with the application of this material to issues of Standard English.



**ENGL 4800 Linguistics: 3 semester hours**

Prerequisites: ENGL 3100; majors, ENGL 3090. A survey of linguistics with emphasis on what the field reveals about the English language. Topics include the sounds of language, grammar, writing systems, language acquisition, language in society, language history, dialects, and usage.

**ENGL 4810 English Grammar: 3 semester hours**

Prerequisites: ENGL 3100; majors, ENGL 3090; ENGL 2810 or passing grade on English-Education Test of Basic Grammar A study of modern English grammar from the perspectives of traditional, structural, and transformational grammar.

**ENGL 4820 History Of The English Language: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent A historical survey of the English language from its Indo-European roots through Old and Middle English to the present. Topics include changes in sound, meaning, and grammar, as well as developments in American English, including regional and social dialects.

**ENGL 5800 Modern Linguistics: 3 semester hours**

Prerequisite: None. A study of selected topics in the structure of the English language, combining readings in current linguistics publications with original research.

**Literature Courses:****ENGL 1120 Introduction to Literature: 3 semester hours**

The student is introduced to the various literary types, including poetry, drama, fiction, and the essay.

**ENGL 1170 American Literary Masterpieces: 3 semester hours**

An introduction to major authors, works, and themes in American Literature from the nineteenth century to the present.

**ENGL 1710 Native American Literature: 3 semester hours**

Same as ANTHRO 1710. The course surveys the literature of American Indians from its oral tradition of myth, legend, song and oratory through its modern forms. The course satisfies the ethnic literature requirement for Missouri state certification in secondary education and the College of Arts and Sciences non-Euro-American study requirement.

**ENGL 1950 Topics In Literature: 3 semester hours**

This course will introduce the student to selected literary topics and/or genres. Each semester the department will announce topics and course content. Topics such as alienation, justice, and the absurd, and genres such as science fiction and contemporary drama are typical possibilities.

**ENGL 2240 Literature Of The Old Testament: 3 semester hours**

A comprehensive understanding of the Old Testament, its literary background and significance for western civilization.

**ENGL 2250 Literature Of The New Testament: 3 semester hours**

A comprehensive understanding of the New Testament, its literary background and significance for western civilization.

**ENGL 2280 Contemporary World Literature: 3 semester hours**

Selected World Literature from the 20th and 21st centuries with emphasis on non-European literatures. This course may include works from Europe, Latin American, the Middle East, Africa, and Asia; it excludes literature from the United States and England. It satisfies the cultural diversity requirement of UMSL.

**ENGL 2310 English Literature Before 1790: 3 semester hours**

The development of English literature from the Middle Ages through the eighteenth century. Introduces students to major literary movements and themes through the reading and analysis of representative works of selected major authors.

**ENGL 2320 English Literature After 1790: 3 semester hours**

The development of English Literature from the beginning of the nineteenth century. Introduces students to major literary movements and themes through the reading and analysis of representative works of selected major authors.

**ENGL 2330 Introduction To Poetry: 3 semester hours**

A close study of poems, with special emphasis on the varieties of poetic form, and the means of interpretation and evaluation.

**ENGL 2340 Introduction To Drama: 3 semester hours**

A close study of major dramatic works in various modes, to introduce the student to the forms and techniques of dramatic literature.

**ENGL 2510 World Literature Before 1650: 3 semester hours**

Prerequisite: ENGL 1100. A survey of World Literature from the earliest times to 1650. Diverse literary works in a variety genres and voices will be studied. This course excludes literature from the United States and England. To satisfy the cultural diversity requirement of UMSL, the course will include literary works from diverse traditions from throughout the world.

**ENGL 2520 World Literature After 1650: 3 semester hours**

Prerequisites: ENGL 1100. A survey of World Literature from 1650 to the present. Diverse literary works in a variety genres and voices will be studied. This course excludes literature from the United States and England. To satisfy the cultural diversity requirement of UMSL, the course will include literary works from diverse traditions from throughout the world.

**ENGL 2710 American Literature Before 1865: 3 semester hours**

Representative selections from American authors from the early seventeenth century to the Civil War.

**ENGL 2720 American Literature After 1865: 3 semester hours**

Representative selections from American authors from the Civil War to the present.

**ENGL 3800 Topics In Women And Literature: 3 semester hours**

An examination of the role of women in literature, either as figures in literary works or as writers. Specific topics to vary from semester to semester. Since the topics of ENGL 3800 may change each semester, the course may be repeated for credit if the topics are substantially different.

**ENGL 4030 Contemporary Critical Theory: 3 semester hours**

This course is to acquaint students with a range of critical methodologies that have gained currency since the 1960's; topics may include formalist, structuralist, post-structuralist, Marxist, reader-response, psychoanalytic, feminist, cognitive, and evolutionary approaches to literature and culture.

**ENGL 4060 Adolescent Literature: 3 semester hours**

The course will expose students to the large variety of quality adolescent literature available for reading and study in middle and high school classes. It will also examine the relevance of a variety of issues to the reading and teaching of adolescent literature, among them: reader response; theory and practice; multi-culturalism; literacy; the relation of adolescent literature to "classic" literature the role of adolescent literature in interdisciplinary studies; adolescent literature as an incentive to extracurricular reading.

**ENGL 4080 Narrative, Cognition, And Emotion: 3 semester hours**

Prerequisites: ENGL 2320; ENGL 3090, prerequisite or co-requisite Examines narrative theory in the light of recent research into cognitive organization and the structure of the emotions. Traditional and contemporary theories of narrative--or realism, symbolism, point of view, tone, and genre--are developed through recent findings in empirical science. A variety of stories and novels are used as test cases for theoretical propositions.

**ENGL 4260 Chaucer: 3 semester hours**

The course concentrates on the poetry of Geoffrey Chaucer, including the Canterbury Tales, early poetic works, and the Troilus and Criseyde. All readings are in the original Middle English.

**ENGL 4270 Medieval English Literature: 3 semester hours**

A survey of old and middle English literature from Beowulf to Malory's Morte d'Arthur, exclusive of Chaucer. All works are read in modern English translations.

**ENGL 4320 Sixteenth-Century Poetry and Prose: 3 semester hours**

A broad selection of writers from the late 15th century through 1603, including Thomas More, the Sidneys, Spenser, and Shakespeare's sonnets.

**ENGL 4340 Early Seventeenth Century Poetry And Prose: 3 semester hours**

A broad selection of writers from 1603 through 1675, exclusive of Milton, including Bacon, Donne, Jonson, and Lanyer.

**ENGL 4350 Milton: 3 semester hours**

All the minor poems and the three longer poems with some attention to the major prose, Milton and his relation to the politics, theology and literature of the seventeenth century.

**ENGL 4360 Tudor And Stuart Drama: 3 semester hours**

A survey of the dramatic writings of the period from the interludes of John Heywood to the closing of the theatres in 1642, with particular attention to the plays of Marlowe, Jonson, Webster and Ford. Though Shakespeare will not be studied in this course; connections between his works and those of his contemporaries will be discussed.

**ENGL 4370 Shakespeare: Tragedies And Romances: 3 semester hours**

A study of the structure and language of Shakespeare's tragedies and romances, with particular attention to their genre as well as their relation to the cultural issues of Shakespeare's time. Shakespeare's narrative poems may also be included.

**ENGL 4380 Shakespeare: Comedies And Histories: 3 semester hours**

A study of the structure and language of Shakespeare's comedies and histories, with particular attention to their genre as well as their relation to the culture issues of Shakespeare's time. Shakespeare's sonnets may also be included.

**ENGL 4420 Age Of Dryden And Pope: 3 semester hours**

The beginnings of English neo-classic literature in the Restoration and its development through the first half of the eighteenth century, focusing on Dryden, Swift and Pope.

**ENGL 4450 The Eighteenth-Century English Novel: 3 semester hours**

The origins and early development of the English novel, from Defoe to Jane Austen.

**ENGL 4520 Romantic Poetry and Prose: 3 semester hours**

A broad selection of poetry and prose from the English Romantic movement. Primary focus on Blake, Wordsworth, Coleridge, Byron, Keats, and Shelley. Additional authors may include Mary Wollstonecraft, Robert Burns, Thomas De Quincey, Mary Shelley, John Clare, Felicia Hemans, Ottobah Cugoana, Olaudah Equiano, and others.

**ENGL 4540 The Nineteenth-Century English Novel: 3 semester hours**

Novels of the Romantic and Victorian periods, from Austen to George Eliot.

**ENGL 4550 Novels into Films: The Nineteenth Century: 3 semester hours**

Prerequisites: ENGL 2320, ENGL 3090. Novels by Austen, Eliot, Wilde, Hardy, and others read in themselves and as interpreted in film. Comparisons of the representational and aesthetic techniques available to novels and film.

**ENGL 4560 Prose And Poetry Of The Victorian Period: 3 semester hours**

Critical readings of selections from Tennyson, Browning, Arnold and others, in addition to selections from the major prose writing.

**ENGL 4580 Literature Of The Late Nineteenth And Early Twentieth Centuries: 3 semester hours**

Literature of the period between 1870 and the First World War, including works by writers such as Hardy, Conrad, James, Wilde, Stevenson, Shaw, Jefferies, and Wells.

**ENGL 4610 Selected Major American Writers I: 3 semester hours**

American literature of the nineteenth century: Emerson, Thoreau, Hawthorne, Melville, Whitman and others.

**ENGL 4620 Selected Major American Writers II: 3 semester hours**

American literature of the late nineteenth and early twentieth centuries: Dickinson, James, Twain, Cather, Frost, Dreiser and others.

**ENGL 4640 American Fiction To World War I: 3 semester hours**

Development of the novel and short story in America.

**ENGL 4650 Modern American Fiction: 3 semester hours**

The novel and short story in America since World War I. There may be some attention to British and continental influences.

**ENGL 4740 Poetry Since World War II: 3 semester hours**

Reading and analysis of contemporary poetry.

**ENGL 4750 Modern British Fiction: 3 semester hours**

Critical reading and analysis of British fiction of the twentieth century. There may be some attention to American and continental influences.

**ENGL 4760 Modern Drama: 3 semester hours**

British, American and European drama of the last one hundred years: the well-made play, the problem play, verse drama, new definitions of tragedy, the angry theater, theater of the absurd.

**ENGL 4770 Modern Poetry: 3 semester hours**

Critical reading and analysis of poetry of the late nineteenth and early twentieth centuries. Yeats, Eliot, Frost, Williams and others.

**ENGL 4920 Major Works Of European Fiction: 3 semester hours**

Prerequisites: 2 college courses in literature The development of the European novel in the 19th and 20th centuries. Representative of works of writers such as Balzac, Flaubert, Dostoevsky, Tolstoy, Kafka, and Proust, read in translation.

**ENGL 4925 The Short Story in World Literature: 3 semester hours**

Students will read a wide variety of short fiction, from very brief pieces to novellas, including stories from all over the world and from several different centuries either in translation or in the original English. The course will also cover short theoretical works on narrative and critical commentaries on some of the fiction.

**ENGL 4930 Studies In Gender And Literature: 3 semester hours**

Same as GS 4930. The course examines the role of gender in literature, including the transformation of literary genres by women writers, writings by women during a particular historical period, and gender relations in literature. Specific topics vary from semester to semester. The course may be repeated for credit with departmental approval.

**ENGL 4931 English Women Writers, 1300-1750: 3 semester hours**

Same as GS 4931. Works will be read ranging in scope from closest drama and romance to lyrics to personal, political, and religious writing by women, such as Margery Kempe, Mary Sidney, and Amelia Lanyer, who wrote during a period when reading and writing were not the female norm.

**ENGL 4932 Female Gothic: 3 semester hours**

Same as GS 4932. The course examines the historical development of the female gothic, a genre which employs narrative strategies for expressing fears and desires associated with female experience. From the late 18th century to the present, we will trace the persistence of the Gothic vision in fiction and film.

**ENGL 4934 Austen And The Brontes: 3 semester hours**

Same as GS 4934. This course covers the novels of the major 19th century British writers Jane Austen and the three Bronte sisters, Anne, Emily, and Charlotte. The course will be devoted to Austen's romantic comedies and the historical/cultural contexts that inform the novels, as well as the darker romanticism of the Brontes, along with the biographical, cultural, philosophical, and religious contexts of their work.

**ENGL 4936 Tales Of The Islamic East: 3 semester hours**

Same as GS 4936. Adventure, gender, and power in British and post-colonial writing: Lady Montague on Turkey, Gibbon on Islam, Byron and Hemans on harems and heroes, Disraeli on the Jewish Caliph of Bagdad, T.E. Lawrence on Arabia, and el Saadawi and Rushdie on (post)modern gender and the Islamic East.

**ENGL 4938 American Women Poets Of The 20Th/21St Centuries: 3 semester hours**

Same as GS 4938. Introduction to American women poets since 1900: anarchists, Imagists, harlem formalists, white lyricists, modernists (Ridge, H.D., Dunbar-Nelson, Millary, Stein); mid-century giants (Rukeyser, Brooks) and Confessionals (Sexton, Plath); feminists and multiculturalists (Rich, Lorde, Giovanni, Hogan), poets of witness and the play of language and the mind (Klepfisz, Olds, Mullen, Perillo).

**ENGL 4950 Special Topics In Literature: 3 semester hours**

Special topics in literature that are not covered in other 4000-level English courses. Since the topics of ENGL 4950 may change each semester, the course may be repeated for credit if the topics are substantially different.

**ENGL 5000 Introduction To Graduate Study In English: 3 semester hours**

A course designed to prepare students for the professional study of English. The course will both familiarize students with basic bibliographic tools and scholarly methods and introduce them to issues that are of current critical interest to those engaged in the advanced study of literature. These issues include gender, textuality, reader-response, multiculturalism, feminism, psychoanalysis, cultural studies, literary history and the relationship of literature to philosophy, history, and science. Must be taken within the first twelve hours of graduate study.

**ENGL 5250 Studies In Middle English Literature: 3 semester hours**

Special topics in English literature before 1500.

**ENGL 5300 Renaissance Literature: 3 semester hours**

Special topics in English literature from 1500 to 1660.

**ENGL 5400 Eighteenth Century Literature: 3 semester hours**

Studies in Augustan poetry and prose, including drama and fiction, with emphasis on background and major figures.

**ENGL 5500 Nineteenth Century Literature: 3 semester hours**

Special topics in English romanticism, in Victorian life and thought, and in the development of the novel and of poetry between 1797 and 1914.

**ENGL 5600 American Literature Before 1900: 3 semester hours**

Selected American writers or topics from the colonial period to 1900.

**ENGL 5700 Twentieth-Century American Literature: 3 semester hours**

Selected American writers or topics from 1900 to the present.

**ENGL 5750 Twentieth-Century British Literature: 3 semester hours**

Selected British and Commonwealth writers of the twentieth century.

**ENGL 5920 Studies In Fiction: 3 semester hours**

Study of a few selected British and American novelists and short story writers.

**ENGL 5940 Seminar In Gender And Literature: 3 semester hours**

Same as GS 5940 Gender studies in literature of different periods, types, and genres; satisfies area requirement (1-6) appropriate to its period, national literature, and genre.

**ENGL 5950 Seminar In Special Topics: 1-3 semester hours**

Special topics which are not covered in other graduate-level English courses.

**ENGL 5970 Independent Reading: 1-3 semester hours**

Directed study in areas of English for which courses are not available.

**ENGL 6000 Thesis: 1-6 semester hours**

PREREQUISITE: 3.5 graduate GPA Thesis research and writing on a selected topic in English studies. May be taken over two semesters, three (3) hours each semester.

## Special Offerings:

**ENGL 3500 Special Studies: 1-3 semester hours**

Prerequisite: A course in area of proposed work and consent of instructor. Individual work, with conferences adjusted to needs of the student. May not be used to meet specific English department distribution and language requirements. May be repeated for a maximum total of four hours credit.

## Gender Studies Program

### General Information

The Gender Studies Program has three central missions: to provide a comprehensive undergraduate and graduate gender studies curriculum, to support research on gender issues, to sponsor events and provide community outreach. Faculty engage in disciplinary and interdisciplinary scholarship to enhance our understanding of the ways in which gender, sex, and sexuality have structured human society and experience across time and cultures. Faculty and students draw upon the rich body of interdisciplinary scholarship to investigate emerging theories and research on women, men, and gender. Our courses encourage a reassessment of female and male roles in society and facilitate career goals that focus on gender issues. Gender Studies classes promote the exchange of knowledge among people of different races, genders, classes, ethnicities, sexualities and cultural conditions. Gender Studies courses enable students to broaden their educational experiences and develop new insights into their own lives and aspirations.

### The Gender Studies Major

Undergraduate students may design their own major through the Bachelor's in Interdisciplinary Studies. The Bachelor of Interdisciplinary Studies (BIS) provides a flexible, individualized program of study for the self-directed learner. It is intended for students who have unique educational goals that cannot be met by any other UMSL degree program. Each degree program is developed by the student, with advising by faculty and a professional Student Services Coordinator. It is open to all students, including those enrolled in the Pierre Laclède Honors



College. The BIS degree enables a student to combine courses from at least three different disciplines, taken at the intermediate or advanced level. This allows students to study a subject from multiple academic perspectives (for example, Gender Studies, including History, English, Criminology and Criminal Justice, Sociology, and/or Social Work), or to combine courses for a specific career goal (for example, leadership or non-profit management). Student may also receive credit for professional internships, research internships, or community service, under the supervision of a UMSL faculty member. Some BIS degree programs may be completed entirely with evening courses.

The BIS requires the student to define a personalized Area of Study of at least 36 credit hours, no more than 15 hours of which can be in one department. All courses in the Area of Study must be at the 2000-level or above, and 18 credits must be earned at UM-St. Louis after the student is admitted to the BIS program. Up to six hours may be taken as faculty-supervised professional internship, research internship, or community service, which must be approved by the faculty member in advance. In order to be admitted to the BIS, students must also have a campus grade point average of 2.0 or above. Please contact Dr. Kathleen Nigro, Gender Studies Advisor, at [nigrok@umsl.edu](mailto:nigrok@umsl.edu) for more information.

## Gender Studies Minor

For a Minor in Gender Studies, students must take at least 12 hours of Gender Studies courses. 9 hours must include 3 core courses:

1. GS 2102 (<https://nextbulletin.umsl.edu/artsandsciences/genderstudies>) Introduction to Gender Studies
2. GS 3033 (<https://nextbulletin.umsl.edu/artsandsciences/genderstudies>) Sexuality and Gender Theory or other 3000-5000 level course in feminist or gender theory.
3. Capstone experience: Students must complete a final research project or practicum. The Capstone requirement may be satisfied by GS 4352 (<https://nextbulletin.umsl.edu/artsandsciences/genderstudies>) Independent Study in Gender Studies, GS 4353 (<https://nextbulletin.umsl.edu/artsandsciences/genderstudies>) Internship in Gender Studies, or by a 4000-level Gender Studies course or other 4000-level seminar where student completes a final research and writing project that focuses on gender studies.

The remaining 3 hours may be cross-listed courses with the student's major department or Gender Studies electives from various disciplines.

## Undergraduate Certificates

### Gender Studies Certificate Requirements For Admission

Undergraduate certificate candidates must meet the University's general education requirements. Applicants must have a cumulative G.P.A. of at least 2.5 and must maintain a minimum 2.5 G.P.A. in Gender Studies courses. Candidates for undergraduate certificates are asked to register with Gender Studies after taking one or two courses. Students will then be enrolled in the program and will be placed on our mailing list for class information and announcements of upcoming events.

### Certificate Requirements

Students must take at least 18 hours in Gender Studies courses. 9 hours must include 3 core courses:

1. GS 2102 (p. 149) Introduction to Gender Studies
2. GS 3033 (p. 149) Sexuality and Gender Theory or other 3000-5000 level course in feminist or gender theory
3. Capstone Experience: Students must complete a final research project or practicum. The Capstone requirement may be satisfied by GS 4352 (p. 149) Independent Study in Gender Studies, GS 4353 (p. 149) Internship in Gender Studies, or by a 4000-level Gender Studies course or other 4000-level seminar where student completes a final research and writing project that focuses on gender studies.

9 hours may be cross-listed courses with student's major department or Gender Studies electives from various disciplines.

## Gender Studies Certificate in Women's Leadership

For the Gender Studies Certificate in Women's Leadership, students must take at least 18 hours of Gender Studies courses. 6 hours must include 2 core components:

1. GS 2102 (<https://nextbulletin.umsl.edu/artsandsciences/genderstudies>) Introduction to Gender Studies
2. Capstone Experience: The capstone requirement may be satisfied by GS 4352 (<https://nextbulletin.umsl.edu/artsandsciences/genderstudies>), Independent Study in Gender Studies, or GS 4353 (<https://nextbulletin.umsl.edu/artsandsciences/genderstudies>), Internship in Gender Studies (which includes the Sue Shear Institute for Women in Public Life, the Women's University Mentoring Program, the Women's Executive Leadership Institute, or a comparable program approved by the GS director).

The remaining 12 hours may be selected from the following choices; take no more than two courses per curricular designation.

COMM 3337 (p. 149)	Male/Female Communication	3
COMM 2232 (p. 149)	Effective Communication In The Organization: Tools For Leadership	3
GS 2150 (p. 149)	Special Topics In Gender Studies	3
MGMT/SOC 3600 (p. 149)	Management And Organizational Behavior	3
MGMT 3611 (p. 149)	Advanced Management And Organizational Behavior	3
MGMT 3623/PSYCH 3318 (p. 149)	Industrial And Organizational Psychology	3
MGMT 3625 (p. 149)	Leadership in Organization	3
MKTG 3785 (p. 149)	Women in International Entrepreneurship <sup>1</sup>	3
PHIL/GS 2253 (p. 149)	Philosophy And Feminism	3
POL SCI 2380 (p. 149)	The Politics of Gender in the United States	3
POL SCI 3590 (p. 149)	Women and Leadership World-Wide: Breaking the Glass Ceiling	3
PSYCH 2230 (p. 149)	Psychology Of Gender	3



PSYCH 3316/ Fundamentals Of Leadership  
MGMT 3623 (p. 149)

SOC/MGMT 3600 Management and Organizational Behavior  
(p. 149)

<sup>1</sup> Prerequisites: MKTG 3700 (p. 149) (Basic Marketing) and  
MKTG 3780 (p. 149) (International Marketing)

## Graduate Certificate

The graduate certificate in Gender Studies is designed for students who wish to receive post-baccalaureate training in gender studies.

## Requirements For Admission

- Baccalaureate degree 2.75 G.P.A.
- Official transcripts of all previous undergraduate/graduate work
- Two letters of recommendation

If you are not currently enrolled at UMSL, you must apply through the Graduate School. This certificate is available to students with Bachelor's or Master's degrees and students enrolled in graduate degree programs. A student need not be enrolled in a degree program to earn the Gender Studies graduate certificate. Post B.A./B.S. students may enroll in the undergraduate or graduate certificate program.

## Certificate Requirements

At least 18 hours of Gender Studies courses at the 4000, 5000, and/or 6000 level

1. 3 hours must include a graduate feminist or gender theory course, which may be GS 5033 (<https://nextbulletin.umsl.edu/artsandsciences/genderstudies>), Advanced Sexuality and Gender Theory, GS 5040 (<https://nextbulletin.umsl.edu/artsandsciences/genderstudies>) Feminist Critical Theory, or other theory course.
2. 3 hours must include either a graduate internship or practicum, or final writing project, which may be an independent study GS 6452 (<https://nextbulletin.umsl.edu/artsandsciences/genderstudies>) Special Readings in Gender Studies, or a substantial research and writing project for a GS graduate seminar, which may be GS 6450 (<https://nextbulletin.umsl.edu/artsandsciences/genderstudies>) Seminar in Gender Studies, or other cross-listed, 5000 or 6000-level seminar
3. 12 hours must be at the 5000 level or above, while up to 6 hours of 4000-level courses may be taken for graduate credit, as long as student completes graduate level work for the course.
4. No more than 6 hours may be taken as Directed or Independent Study credit.

Most Gender Studies courses are cross-listed with other departments and count toward a department's degree requirements as well as toward the certificate.

## Courses

**GS 1004 History Of Women In The United States: 3 semester hours**

Same as HIST 1004. A survey of women's history from the colonial era to the present.

**3 GS 2020 History of Women and Social Movements: 3 semester hours**  
Same as HIST 2020. Prerequisites: Sophomore standing or consent of the instructor. This course explores the history of women and social movements in the nineteenth and twentieth century United States. It considers social and political movements such as abolitionism, women's suffrage, progressivism, the labor movement, the civil rights movement, and second wave feminism.

**GS 2100 Women in Contemporary Society: 3 semester hours**

**GS 2102 Introduction To Gender Studies: 3 semester hours**

Same as SOC WK 2102, HIST 2102, and SOC 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

**GS 2130 Gender and the Military: 3 semester hours**

Same as MVS 2130. This course examines the treatment of gender difference in the military and focuses on the complex intersection between military culture and social constructs of gender in the civilian world.

**GS 2150 Special Topics In Gender Studies: 3 semester hours**

An introduction to a particular topic area in women's and gender studies (topics will be announced prior to registration) drawing on the theories and methods of such disciplines as sociology, psychology, political science, history, philosophy, art history, and others to examine particular aspects of gender in social and cultural life. Course may satisfy the distribution requirement for humanities or social sciences depending on the topic.

**GS 2224 Marriage And The Family: 3 semester hours**

Same as SOC 2224. The study of patterns of close relationships, and how these relationships are influenced by larger social forces. Topics include love, dating, mate selection, cohabitation, alternative lifestyles, working families, parenting, single mothers, families in crisis, domestic violence, and divorce. Universal and variable aspects of family organization, family role systems, and changes in family social structure are considered.

**GS 2230 Psychology Of Gender: 3 semester hours**

Same as PSYCH 2230. Prerequisites: PSYCH 1003. Evaluation of psychological theories and research regarding physiological, cognitive, and personality gender differences and similarities, gender related problems in adjustment, and gender specific clinical interventions.

**GS 2232 Psychology Of Trauma: 3 semester hours**

Same as PSYCH 2232. Prerequisites: PSYCH 1003. This course is designed to review the psychological effects of crime, violence, war, natural disasters, and other traumas. Particular attention is paid to the development of specific psychopathology and other negative consequences of traumatic events. The process of recovery from distress following psychological events is further emphasized. The role of gender and its relationship to victimization and the development of psychopathology and recovery are considered throughout the course.

**GS 2253 Philosophy And Feminism: 3 semester hours**

Same as PHIL 2253. A critical examination of what various philosophers have said about issues of concern to women. Sample topics include oppression, racism, women's nature, femininity, marriage, motherhood, sexuality, pornography, the ethics of care.

**GS 2290 Gender And The Law: 3 semester hours**

Same as POL SCI 2290. This course examines the ways in which laws and interpretations of laws affect gender equality in the United States. Emphasizing how traditional roles impact both women and men historically and currently, the course highlights major pieces of legislation and court rulings related to employment, economics, education, sexual harassment, pornography, rape, reproductive rights, and domestic relations. The course stresses the impact of federal and state institutions and non-governmental influences on equality. It also addresses gender representation in the legal profession admits effect on judicial decisions. This course satisfies State requirements in American History and Government.

**GS 2380 Politics of Gender in the United States: 3 semester hours**

Same as POL SCI 2380. Prerequisites: POL SCI 1100 or consent of instructor. This course examines the role of gender in political institutions, practices and policy in the United States, past and present. It focuses on various movements for political equality, the relationship between gender and political participation, vote choice, and public opinion, and how legislative, executive, and judicial offices are gendered at the national, state, and local levels. (This course satisfies the State requirements in American History and Government).

**GS 2410 Work, Families, And Public Policy: 3 semester hours**

Same as ECON 2410. Prerequisites: ECON 1000 or ECON 1001. This course compares the economic behavior of women and men in both the labor market and the household. Topics include: the family as an economic (production) unit, gender differences in labor force participation, occupations and earnings; the effectiveness of human capital theory and labor market discrimination in explaining the male-female wage gap; remedies for reducing the wage gap; family structure and economic well-being; and alternative policies to alleviate poverty. Students who have completed ECON 3400 may not take 2410 for credit.

**GS 3031 History Of Women In The United States: 3 semester hours**

Same as HIST 3031. Prerequisites: Junior standing or consent of the instructor. Development of women's economic, political, and social role in the United States with special emphasis on the nineteenth and twentieth centuries; women and work; women and the family; women and reform movements; women and education; feminist theories and activists; images of women.

**GS 3032 History Of Women In Comparative Cultures: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. An introduction to the historical development of women's status in a variety of cultures and periods within the areas of Africa, Europe, the Far East, Latin America, and the Middle East. The course analyzes women's political, economic, familial, and sexual roles and the economic, demographic, ideological, and political forces which promoted change and continuity in those roles.

**GS 3033 Sexuality And Gender Theory: 3 semester hours**

Same as HIST 3033. Prerequisites: Junior standing or consent of instructor. Course examines the ways in which contemporary sexuality and gender theory has challenged and changed the study of culture and history. The course introduces students to sexuality and gender theory in late twentieth and early twenty-first century context-s.

**GS 3034 History Of Sexuality: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. This course locates sexuality at the center of history and examines its impact over time on politics, society, culture, and economics. In particular, the course focuses on changing definitions of sexual deviance, the historical evolution of formal and informal regulations of sexual practices and on the manner in which sex has been deployed in broader historical struggles involving gender, race, class, migration and state building.

**GS 3224 Families in Global Perspective: 3 semester hours**

Same as SOC 3224. Prerequisites: SOC 1010 or consent of instructor. This course presents research from the fields of demography, sociology, economics, and public policy in order to develop a broader understanding of the causes and consequences of population aging, one of the major demographic changes faced by social institutions worldwide. Attention to the global diversity of human experiences by age, gender, socioeconomic status,.

**GS 3250 Sociology Of Victimization: 3 semester hours**

Same as SOC 3250. Prerequisite: SOC 1010. This course examines the role of social factors in a wide rang of kinds of victimization--crime, violence, natural disasters, accidents, disease, etc. The topic of social reactions to various kinds of victimization is also covered. Sociological theories of victimization are emphasized.

**GS 3350 Special Topics In Gender Studies: 3 semester hours**

Prerequisite: GS 2102 or consent of instructor Special topics in women's and Gender Studies. topics vary by semester.

**GS 3352 Independent Studies In Gender Studies: 1-3 semester hours**

Prerequisites: Junior standing; two courses in Women's and Gender Studies, including GS 2102; and consent of the instructor and the Institute. Directed independent work in selected women's and gender studies topics through readings, research, reports and/or conferences. Course may satisfy the distribution requirement for the humanities, social sciences, or math/science depending on topic.

**GS 3376 Gender In The Visual Arts: 3 semester hours**

Same as ART HS 3376. Prerequisites: Minimum of one 2000-level course in ART HIST and ENGL 3100, or consent of instructor. Selected topics in the role of gender difference in the production and reception of works of visual art and culture. This course will consider examples of historical and contemporary works through gender theories and the analysis of cultural and social factors that contribute to the construction of sexualities and genders.

**GS 3590 Women and Leadership World-Wide: Breaking the Glass Ceiling: 3 semester hours**

Same as POL SCI 3590. Prerequisites: POL SCI 1500 or consent of instructor. Compares women's day-to-day leadership and participation patterns across a wide variety of political-economic contexts, emphasizing their performance as elective and executive office holders. It examines the experiences of individual female leaders, the effect of country-specific nomination and recruitment strategies, party dynamics, and the larger political opportunity structure hindering or promoting the balanced participation of women and men in national leadership. Understanding how gender (the socially constructed meanings related to biological sex) operates within these specific contexts is a major concern.

**GS 3700 Diversity And Social Justice: 3 semester hours**

Same as SOC WK 3700. Prerequisites: PSYCH 2160 or SOC 2160; and SOC WK 3100 taken prior or concurrently. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

**GS 4100 Introduction to Feminist and Gender Theory: 3 semester hours**

Same as SOC 4100. Prerequisites: GS 2102. This class serves as an initial intellectual investigation into gendered ideologies (such as the effects of race, ethnicity, nationality, socioeconomic class, sexuality, and religion) and functions as a bridge to later advanced gender theory and methods courses. Topics include interdisciplinary feminist theories (with a focus on gender equality), including masculinity theory, queer theory, muted group theory, and other evolving frameworks.

**GS 4150 Feminist Theory and Social Research: 3 semester hours**

Same as SOC 4150. Prerequisites: GS 2102 and Junior Standing or consent of instructor. This course provides an in-depth examination of feminist theoretical contributions to social science research. We begin by examining the 20th century roots of contemporary feminist theories. With this foundation in place, we then shift to an investigation of how feminist theory has informed sociological research by examining current feminist understandings of gender, race, and sexual inequalities across a range of contemporary social problems. Fulfills WGS feminist theory requirement.

**GS 4300 The Female Gaze: Women And The Media: 3 semester hours**

Prerequisites: Junior Standing or consent of instructor. This course challenges how women's issues and performances of femininity are represented in global media, particularly popular Western media which perpetuate cultural stereotypes of gender norms. Specific topics will vary.

**GS 4325 Gender, Crime And Justice: 3 semester hours**

Same as CRIMIN 4325 and SOC 4325. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the role of gender in crime and in the justice system. Emphasis on gender differences in crime commission, criminal processing, and the employment of women in criminal justice agencies. Fulfills criminology diversity requirement.

**GS 4330 Violence Against Women: 3 semester hours**

Same as CRIMIN 4330. Prerequisites: Junior Standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. This course examines the nature, extent, causes and consequences of various types of violence against women, including rape, sexual assault, stalking, and intimate partner violence. Criminal justice policy and practice regarding violence against women are also examined.

**GS 4350 Special Topics In Gender Studies: 3 semester hours**

Prerequisites: GS 2102 or consent of instructor. Special topics examined from a gender perspective in the fields of anthropology, art history, criminology, economics, English, foreign language, history, philosophy, political science, psychology, social work, sociology, business, or others. Topics and departments vary by semester. Course may be repeated by permission of Director of the Center.

**GS 4352 Independent Study In Gender Studies: 1-3 semester hours**

Prerequisites: GS 2102 or consent of instructor. Independent, directed readings and research in a women's gender related topic, to be determined in consultation with instructor.

**GS 4353 Internship In Gender Studies: 3 semester hours****GS 4360 Sociology Of Minority Groups: 3 semester hours**

Same as SOC 4360. Prerequisites: SOC 1010 and junior standing or consent of instructor. The study of dominant-subordinate group relations. Religion, ethnicity, race, and gender as factors in the unequal distribution of power.

**GS 4452 Feminism And Science: 3 semester hours**

Same as GS 4452. Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. This course will explore major themes and issues in feminist science scholarship, a body of research that focuses on the relationship between science and gender. Feminist research in the philosophy and history of science, and in the biological sciences, are emphasized. Issues include: the nature of objectivity, evidence, and truth; the factors that contribute to the acceptance or rejection of research hypothesis and theories; the nature and consequences of science's cognitive authority; and the relationship between science and values.

**GS 4600 Masculinities: 3 semester hours**

Same as SOC 4600. Prerequisites: GS 2102 or consent of instructor. This course examines men and masculinities through a critical lens, looking carefully at an institutionalized system of gender relations and practices that is assumed to be a natural phenomenon that is culturally universal. The course explores various masculine behaviors, myths, ideologies, and experiences so that students can consider the relationship between masculine practice and social power and delineate choices for future directions. The course is necessarily interdisciplinary and may utilize tools and methods from the social sciences and the humanities. Satisfies GS gender theory requirement.

**GS 4610 Intimate Partner Violence: 3 semester hours**

Same as SOC WK 4610. Prerequisites: SOC WK 3510. Focuses on theoretical and empirical understanding of domestic violence in US society and social work practice with battered women and their families. Addresses direct services, community organizing, and public policy changes to help end violence against women. Relationships between violence against women and other forms of oppression (e.g., racism, economic exploitation, heterosexism and social class) are explored.

**GS 4630 Gender and Social Issues: 3 semester hours**

Same as SOC WK 4630. Prerequisites: SOC WK 3700, GS 2102 or graduate standing. This course will help students become more sensitive to social and welfare concerns based on gender. Topics may include work, education, family responsibilities, violence against women, and special health and mental health service needs. Emphasis will be placed on understanding how social action can be used to bring about positive change.

**GS 4920 Women Writing Nature: 3 semester hours**

Prerequisites: GS 2102, or consent of instructor. We will read and analyze nature writing by 19th and 20th-century women in America, as well as critical studies from various cultural perspectives and academic disciplines. The course will examine how women's observations about nature create, support, and/or dispute particular cultural and social attitudes toward the environment. Students will consider debates in feminist pedagogy, ecofeminism, and social constructivism about the relationship of gender to nature.

**GS 4925 Feminism and Witchcraft: 3 semester hours**

Prerequisites: GS 2102, or consent of instructor. This class will examine literary and historical treatments of witchcraft through a cross-cultural, feminist theoretical framework. Students will read primary historical documents as well as fictional, dramatic, and poetic representations of witches and witchcraft. The course will consider changing perspectives toward witches in contemporary gender theory, spiritualist discourse and popular media.

**GS 4930 Studies In Gender And Literature: 3 semester hours**

Same as ENGL 4930. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. The course examines the role of gender in literature, including the transformation of literary genres by women writers, writings by women during a particular historical period, and gender relations in literature. Specific topics vary from semester to semester. The course may be repeated for credit with departmental approval.

**GS 4931 English Women Writers, 1300-1750: 3 semester hours**

Same as ENGL 4931. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. Works will be read ranging in scope from closet drama and romance to lyrics to personal, political, and religious writing by women, such as Margery Kempe, Mary Sidney, and Amelia Lanyer who wrote during a period when reading and writing were not the female norm.



**GS 4932 Female Gothic: 3 semester hours**

Same as ENGL 4932. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. The course examines the historical development of the female gothic, a genre which employs narrative strategies for expressing fears and desires associated with female experience. From the late 18th century to the present, we will trace the persistence of the Gothic vision in fiction and film.

**GS 4933 Female Novel Of Development: 3 semester hours**

Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. The course covers the development of the female Bildungsroman from the late 18th century to the present. We will consider how temporary and current theories of female development help us read these novels within their particular cultural contexts.

**GS 4934 Austen And The Brontes: 3 semester hours**

Same as ENGL 4934. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. This course covers the novels of the major 19th century British writers Jane Austen and the three Bronte sisters, Anne, Emily, and Charlotte. The course will be devoted to Austen's romantic comedies and the historical/cultural contexts that inform the novels, as well as the darker romanticism of the Brontes, along with the biographical, cultural, philosophical, and religious contexts of their work.

**GS 4936 Tales Of The Islamic East: 3 semester hours**

Same as ENGL 4936. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. Adventure, gender, and power in British and post-colonial writing: Lady Montague on Turkey, Gibbon on Islam, Byron and Hemans on harems and heroes, Disraeli on the Jewish Caliph of Bagdad, T.E. Lawrence on Arabia, and el Saadawi and Rushdie on (post)modern gender and the Islamic East.

**GS 4938 American Women Poets Of The 20Th/21St Centuries: 3 semester hours**

Same as ENGL 4938. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. Introduction to American women poets since 1900: anarchists, Imagists, Harlem formalists, white lyricists, modernists (Ridge, H.D., Dunbar-Nelson, Millay, Stein); mid-century giants (Rukeyser, Brooks) and Confessionals (Sexton, Plath); feminists and multiculturalists (Rich, Lorde, Giovanni, Hogan), poets of witness and the play of language and the mind (Klepfisz, Olds, Mullen, Perillo).

**GS 5031 Advanced History Of Women In The United States: 3 semester hours**

Prerequisites: Graduate standing. Development of women's economic, political, and social roles in the United States with special emphasis on the nineteenth and twentieth centuries: women and work; women and the family; women and reform movements; women and education; feminist theorists and activists; images of women.

**GS 5032 Advanced History Of Women In Comparative Cultures: 3 semester hours**

Prerequisites: Graduate standing. An introduction to the historical development of women's status in a variety of cultures and periods within the areas of Africa, Europe, the Far East, Latin America, and the Middle East. The course analyzes women's political, economic, familial, and sexual roles and the economic, demographic, ideological, and political forces which promoted change and continuity in these roles.

**GS 5033 Sexuality And Gender Theory: 3 semester hours**

Prerequisite: Graduate standing. Course examines the ways in which contemporary sexuality and gender theory have challenged and changed the study of culture and history. The course introduces students to sexuality and gender theory in late twentieth and early twenty-first century context-s.

**GS 5040 Feminist Critical Theory: 3 semester hours**

Prerequisites: Graduate Standing and consent of instructor. Same as ENGL 5040. A consideration of feminist critical theory as a means of reassessing literary texts and our cultural heritage. After exploring the roots of feminist criticism, the seminar will examine Anglo-American and continental debates on theories of language, writing and representation. In providing an interdisciplinary context the course will consider studies in psychology, anthropology, history, and philosophy/theology which have influenced and enriched feminist approaches to literature.

**GS 5053 Advanced Studies In African-American History: 3 semester hours**

Prerequisites: Graduate Standing. Course introduces some of the themes of African-American women's history. By examining the impact of region, gender, and class on African-American women's experiences across time, the course highlights black women's applied and theoretical contributions to feminist politics and activism as well as the black struggle for freedom and equality. Topics covered include: slavery and emancipation, institution and community building, the family and work, electoral politics and direct action protest, civil rights, and contemporary issues.

**GS 5320 Gender and Aging: 3 semester hours**

SAME AS GERON 5320. Prerequisites: Graduate standing or permission of instructor. This course examines advancing age through a gender lens. Men and women experience aging differently based on a host of genetic, biological, psychological, sociocultural and personal identity factors. This course challenges students to consider aging from various perspectives, including cultural expectations and norms, couple and family relationships, health and function, work life and retirement, sexual orientation, gender identity, concerns of LGBT elders, and veteran's issues.

**GS 5350 Topics In Women's And Gender Studies: 3 semester hours**

Prerequisites: Graduate standing and at least one Women's and Gender Studies course. This course will focus on a particular aspect of gender (to be announced prior to registration) and will draw upon recent theoretical and methodological work from a variety of disciplines.

**GS 5450 Special Topics In Gender Studies: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Special topics at the Graduate level examined from a gender perspective in the field of anthropology, art history, criminology, economics, English, foreign language, history philosophy, political science, psychology, social work, sociology, business, or others. Topics and departments vary by semester.

**GS 5500 Foundations Of Human Behavior In The Social Environment: 3 semester hours**

Same as SOC WK 5500. Prerequisites: SOC WK 3150 or equivalent or admission to the MSW program. Focuses on theoretical and empirical understanding of human behavior in the social environment using a life-span perspective. Introduces biological, behavioral, cognitive, and sociocultural theories of individuals, families, and small groups, and their implications for the professional social worker's understanding of socioeconomic status, gender, disability, ethnicity, race, and sexual orientation.



**GS 5635 Social Work Practice With Gay, Lesbian, Bisexual and Transgender Populations: 3 semester hours**

Same as SOC WK 5635. Prerequisites: SOC WK 5100 and SOC WK 5500. This advanced practice course focuses on developing the theoretical and empirical knowledge and practice skills necessary for effective social work practice with lesbian, gay male, bisexual, and transgender (LGBT) persons and their families. This course aims to explore deeper understanding of LGBT identities, families, health and mental health challenges, and issues of political advocacy.

**GS 5700 Diversity, Social Justice And Social Practice: 3 semester hours**

Same as SOC WK 5700. Prerequisites: Graduate Standing. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

**GS 5940 Seminar In Gender And Literature: 3 semester hours**

Same as ENGL 5940. Gender studies in literature of different periods, types, and genres; satisfies area requirement (1-6) appropriate to its period, national literature, and genre.

**GS 6350 Gender, Language and Identity: 3 semester hours**

Same as TCH ED 6350. Prerequisites: Graduate Standing. An interdisciplinary look at the ways gendered and racial identities get developed and shaped through language and culture. Readings will address the complex, yet sometimes invisible, ways that identity, language and gender intersect, creating and assigning roles, responsibilities, and possible selves to individuals and groups in a global world.

**GS 6353 Graduate Internship In Gender Studies: 1-6 semester hours**

Prerequisites: Graduate standing and consent of director. Provides an opportunity for the Graduate Women's and Gender Studies student to acquire "real world" experience working in a non-profit, political, economic, or social service organization with a gender focus.

**GS 6410 Women and Mental Health: 3 semester hours**

Same as PSYCH 7410. Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of the instructor. This course will focus on contemporary research on the psychology of women pertaining to mental health issues. Etiology and treatment of disorders disproportionately affecting women will be emphasized.

**GS 6446 Sex Crime: 3 semester hours**

Same as CRIMIN 6446. Prerequisites: Graduate Standing and consent of instructor. Examination of consensual and non-consensual sexual offending. Topics include historical development of laws regulating sexual conduct, controversies surrounding the application of these laws, and the nature and distribution of sexual offenses.

**GS 6450 Seminar In Gender Studies: 3 semester hours****GS 6452 Special Readings In Gender Studies: 3 semester hours**

## History

### General Information

### Degrees and Areas of Concentration

The department offers work in Asian, African, African American, European, Latin American, Mexican, World, and United States history from ancient to modern times. At the bachelor's level, the department offers the B.A. in history, and, in cooperation with the College of Education, the B.A. in history with teacher certification and the B.S. in education with an emphasis in social studies.

At the graduate level, the department offers an M.A. in history with work in U.S and World history. The department also offers the option of an M.A. in history with a concentration in Museum Studies and Community History along with a certificate in History Education and a certificate in Public History and Cultural Heritage.

## Undergraduate Studies

### General Education Requirements

History majors must meet the university and college general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>).

History courses that will satisfy the university's state requirement are:

HIST 1001	American Civilization To 1865	3
HIST 1002	American Civilization 1865 To Present	3
HIST 1003	African-American History	3
HIST 1004	The History Of Women In The United States	3
HIST 2001	Creating Early America: European Empires, Colonial Cultures, and Native Nations, 1565-1776	3
HIST 2003	United States History: From Nation to Civil War	3
HIST 2004	United States History: The Civil War Era, 1860-1900	3
HIST 2005	The Modernization Of The United States	3
HIST 2006	Recent United States History	3
HIST 2007	History Of Missouri	3
HIST 2010	From Sea to Shining Sea: The American Frontier 1763 - 1890	3
HIST 2020	History of Women and Social Movements	3
HIST 2023	US Foreign Relations and Military History To 1900	3
HIST 2024	US Foreign Relations and Military History Since 1900	3
HIST 2800	History Of American Economic Development	3

Students may take any language that fulfills the college's foreign language requirement.

Majors may not take required history courses on a satisfactory/unsatisfactory basis. Students enrolled in variable credit reading courses for 5 credit hours must complete a seminar paper.

## Degree Requirements

### Bachelor of Arts in History

Students are encouraged to move from introductory courses at the 1000 to more advanced content-oriented courses at the 2000 level then to skill oriented courses at the 3000 and 4000 levels.

#### 1000 Level

Select one of the following in U.S. History:	3
HIST 1001 (p. American Civilization To 1865 155)	
HIST 1002 (p. American Civilization 1865 To Present 155)	
HIST 1003 (p. African-American History 155)	
HIST 1004 (p. The History Of Women In The United States 155)	

Select one of the following in European History: 3

HIST 1030 (p. 155)	The Ancient Empires of the Mediterranean	
HIST 1031 (p. 155)	Topics European Civilization: Emergence Of Western Europe To 1715	
HIST 1032 (p. 155)	Topics In European Civilization: 1715 To The Present	
Select one of the following in African, Asian, Latin American, or World History:		3
HIST 1041 (p. 155)	East Asian Civilization	
HIST 1042 (p. 155)	East Asian Civilization	
HIST 1051 (p. 155)	Latin American Civilization	
HIST 1052 (p. 155)	Mexican Civilization	
HIST 1061 (p. 155)	African Civilization: From The Beginning of Humanity to The End of The Slave Trade	
HIST 1062 (p. 155)	African Civilization II: From Colonies to Nations	
HIST 1075 (p. 155)	World History to 1500	
HIST 1076 (p. 155)	World History Since 1500	
Select two additional courses at the 1000 level on any subject including INTDSC 1999 (p. 155).		6
<b>2000 and 3000 Level</b> <sup>1</sup>		
Select between one and three courses at the 2000 and 3000 level.		3-9
HIST 2999 (p. 155)	Introduction to Historical Inquiry	4
<b>4000 Level</b> <sup>3</sup>		
Select between two and four sections of the following:		6-12
HIST 4142 (p. 155)	Inquiries in U.S. History	
HIST 4143 (p. 155)	Inquiries in World History	
HIST 4999 (p. 155)	Senior Seminar <sup>4</sup>	5
Total Hours		33-45

1 2000 and 3000 level courses offer in-depth historical content.  
 2 At least one of the courses at this level must be in the fields of African, Asian, or Latin American History  
 3 4000 level courses are designed primarily for majors and focus on developing historical writing and thinking skills.  
 4 In this course, history majors demonstrate mastery over historical thinking, writing, and research skills. This course should be taken once students have completed all other requirements for the major.

Majors must complete at least 39, but not more than 45, hours in history with no grade below C. Courses SEC ED 4011 (p. 155) and SEC ED 4012 (p. 155) do not count toward the major. After fulfilling the general education and specific major degree requirements, students take the remaining 30 hours required to complete the B.A. or B.S. degrees from courses, from one or more of the following or their-quality equivalents at other institutions, if the appropriate department has evaluated them as being of university-level quality: anthropology/archaeology, art

(appreciation, history, studio), biology, chemistry, communication, criminology and criminal justice, economics, English, foreign languages/literatures, history, mathematics/computer science, music (appreciation, history, performance), philosophy, physics and astronomy/geology, political science, psychology, social work, sociology, business, education, engineering, and interdisciplinary.

Undergraduate majors must complete a residency minimum of 15 hours of 2000/3000/4000 level History courses including HIST 4999 (p. 155) (5 credit hours) at UMSL.

### Departmental Honors

Students majoring in history may be awarded departmental honors upon graduation if they have achieved the following: a) at least a 3.2 overall GPA; b) at least a 3.5 GPA for all hours attempted in history courses; and c) an outstanding research paper in the Senior Seminar as certified by the faculty member responsible for directing it.

### Learning Outcomes.

The following learning outcomes are anticipated in the successful completion of a Bachelor of Arts in History

- **Communication:** Write clearly and coherently and listen to oral presentations, summarize the arguments made and discuss them in the context of other oral presentations or conversations.
- **Valuing/Ethics/Integrity:** Understand and articulate the diversity of identities and political and social systems that have shaped human behavior over time. Understand and articulate one’s own identity in terms of race, gender and class, and to locate that identity in the wider world, both past and present.
- **Critical Thinking:** Listen to oral presentations, summarize the arguments made and discuss them in the context of other oral presentations or conversations. Accurately summarize an argument and discuss it in the context of other arguments.
- **Content Knowledge:** Embedded in Other Outcomes

### Minor in History

Students may minor in history by taking 19 hours of history courses as follows:

1. One course numbered 1001-1099 in each of the following areas: United States history, European history, and either Asian, African, Latin American or World history (9 credits)
2. Three courses numbered 2000-3999, including History 2999 (10 credits)

No course in which a grade below a C is received shall count toward a minor.

### The Minor in History of Science and Technology

The Minor in History of Science and Technology (HST) is an interdisciplinary program requiring a minimum of 18 credits in HST.

All required courses must be completed with a "C" or higher. The satisfactory/unsatisfactory option may not be used. No transfer courses may be used towards the HST Minor. A minimum of 12 hours must be taken at 2000 and above with 9 of those hours being at 3000 or above.

Courses in the upper division may satisfy requirements for the student's major, consistently with the major's requirements.

## Requirements

### Logic or Methodology

Select one of the following in either logic or methodology: 3

ANTHRO 4308 Practicum In Cultural Research Methods  
(p. 155)

ANTHRO 4310 Laboratory Methods In Archaeology  
(p. 155)

HIST 2999 (p. 155) Introduction to Historical Inquiry

PHIL 3360 (p. 155) Formal Logic

PHIL 4460 (p. 155) Advanced Formal Logic

PSYCH 2219 (p. 155) Research Methods

SOC 3230 (p. 155) Research Methods

### History

Select two of the following in history of science and technology: 6

ECON 3800 (p. 155) History Of Economic Thought

HIST 2089 (p. 155) Religion, Philosophy & Science in History:  
Introduction to The Intellectual History Of The West

HIST 2770 (p. 155) Introduction To Transportation

HIST 2772 (p. 155) History Of Aviation In American Life

HIST 2773 (p. 155) Urbanization And Transportation

HIST 4143 (p. 155) Inquiries in World History

PHIL 4483 (p. 155) Topics In History And Philosophy Of Science

PSYCH 3400 (p. 155) Conceptual and Historical Foundations of  
Psychology

### Science

Select 9 credit hours in the mathematical, physical, life, behavioral, or social sciences<sup>2</sup> 9

Total Hours 18

<sup>1</sup> Note: HIST 4143 (p. 155) is offered under different topics; only the specific topic listed here counts as HPST.

<sup>2</sup> The science courses must be in addition to those satisfying the Gen Ed requirements and conditional upon their acceptance by the HST undergraduate advisor.

## Prerequisites:

Some courses required by the Minor in History have prerequisites. (It should be particularly noted that all 3000 level History courses require HIST 2999.) Some students may satisfy prerequisites by virtue of their prior curriculum. When this is not the case, students are responsible for either satisfying the prerequisites by adding courses to their curriculum or obtaining a waiver from the instructor.

## Alternative courses to satisfy the History requirements:

Some courses may satisfy the History requirement even though they are not listed as such, depending on what their content is. These include variable content courses, courses at the Honors College, and history of philosophy courses. If a course that deals with some aspect of History and should satisfy a requirement is not listed among those satisfying the requirements, you may do the following:

1. Obtain the description of what the course will cover.
2. Write a very short explanation of why the course ought to count toward satisfaction of the requirement, by showing how it deals with the relevant aspect of History.
3. Submit both to the History undergraduate advisor for approval.

## Bachelor of Liberal Studies Option:

A minor in history may be combined with a minor in the Philosophy of Science and Technology and a capstone to form a Bachelor of Liberal Studies. The relevant capstones are either HIST 4999 or PHIL 4491. Since students taking HIST 4999 must have taken HIST 2999, it is suggest such students use to satisfy the Logic and Methodology requirement. Students can use the same course to satisfy the Logic and Methodology requirement of both minors, but cannot use the same science courses. Also, a Bachelor of Liberal Studies program is easily combined, in turn, with a major in any science as a double major. This provides the student with a deeper historical and conceptual understanding of the science(s) he or she is studying.

## Related Areas

Since history is a broad discipline, it can be combined with serious work in any other discipline. Courses in the humanities, social sciences, languages, and the natural sciences may complement the history program. Students should consult with faculty advisers to select courses suited to their individual interests.

## Bachelor of Arts in History with Teacher Certification

Students majoring in History may earn Social Studies Teacher Certification as follows:

### Social Studies

Teacher certification students must complete the major and meet these minimum social science requirements:

American History, including:	12
SEC ED 4013 United States History For The Secondary (p. 155) Classroom	
European or World History, including:	9
HIST 4014 (p. 155) World History For The Secondary Classroom	
United States and/or State Government, including:	6
POL SCI/SEC American Government For The Secondary ED 4090 (p. 155) Classroom	
Behavioral Science	6
Economics	3
Geography	3

Social Studies Elective	2
Total Hours	41

Social science methods course is SEC ED 4011 (p. 155).

For emphasis area advising, you must see a History/Social Studies advisor. You must also see an advisor in the College of Education regarding Education requirements.

For more information, refer to the Secondary Education in this Bulletin.

## Bachelor of Science in Education: Emphasis in Social Studies

The history requirements are the same as for the B.A. degree except students fulfill the College of Education general education requirements rather than those of the College of Arts and Sciences. For information, refer to the College of Education section in this Bulletin.

## Graduate Studies

The department offers the MA in History, the MA in History with a Museum Studies concentration and three Graduate Concentrations: Museum Studies, Public History and Cultural Heritage, and History Education. Qualified students may enter the MA through two different routes, either as graduates with a baccalaureate degree or as exceptional undergraduates via the 2 + 3 program.

## The M.A. Degree

The Department of History offers two the Master of Arts in History and the Master of Arts in History with Concentration in Museum Studies. These options are described below.

## Master of Arts in History

The Department of History offers students two ways of completing the Master of Arts degree: one path of study emphasizes depth of knowledge and research competence acquired through writing a substantial master's thesis; the second emphasizes breadth of historical knowledge acquired through graduate course work and the writing of research papers. Both paths include a core of substantive courses in history (see Core) to which the student adds either a thesis (see Thesis) or additional research papers and seminars (see Research Papers).

The M.A. program offers all students intermediate training preparatory to doctoral programs, advanced training leading to teaching and other careers, and disciplined advanced work.

The History M.A. program offers study in U.S. History, World History, History Education, Public History and Cultural Heritage, and Museum Studies. Students should consult with the Director of Graduate Studies to be sure that they have properly selected their fields of study.

## Admission Requirements

Applicants must meet several departmental admission requirements in addition to the general criteria of the Graduate School. The applicant's undergraduate studies need not have been in history, but they must demonstrate high academic potential. Normally, only students with a 3.2 grade point average (3.35 for the online degree) in their undergraduate major are admitted; most successful applicants have higher grades.

Applicants must submit three letters of recommendation, preferably from former teachers, and a sample of their written work. The History

Department bases its admission decisions upon the undergraduate transcript, the letters of recommendation, and the sample of written work. The deadlines for applications are March 15<sup>th</sup> for the Fall semester and October 15<sup>th</sup> for the Spring semester. Applications will be accepted after these deadlines but admission for the upcoming semester is not guaranteed.

## Core

All candidates for the M.A. degree in history must complete a core of 26 hours of course work (excluding thesis credit), with no more than nine hours of history and related fields at the 5000 level. This 26-hour core must include seven courses at 3 credit hours each (21 hours in all), and one 5-credit-hour writing seminar consisting of a 2-credit-hour research paper supplement to a 3-credit-hour, 6000-level history readings course.

To earn the 26-hour core, candidates must complete HIST 6000 and select at least one field of study with a minimum of three courses (each at 3 credit hours or more.) Students may use the remaining hours to complete a second field.

In addition to this core, each candidate must select one of the two following degree options:

### 1. Thesis Option--32 hours total

In addition to the core, the candidate choosing this option must enroll for 6 hours of thesis credit and submit an acceptable thesis. The thesis is based on original research in primary sources. Normally, theses do not exceed 100 pages of text. Candidates receive a grade for the thesis upon its approval by an advisory committee. The committee consists of professors selected by the candidate after consultation with the major professor. One member of the committee must be from the department but outside the candidate's general area of study, and one may be outside the history department.

The advisory committee conducts an oral examination on the thesis during the candidate's last semester of residence.

The committee decides whether the candidate shall pass, fail, or fail with the option to repeat the oral examination at a later date. Students may not take the oral examination more than twice. The second examination must be held no less than one and no more than two semesters following the date of the first examination. Summer session may be counted as a semester under this procedure, but students should be aware of the difficulties involved in assembling faculty committees during the summer.

Thesis candidates must demonstrate competence in one foreign language or in quantitative methods as applied to historical study. Candidates shall demonstrate foreign language competence by translating, with the use of a dictionary, 500 words in one hour. Normally a member of the history faculty will conduct this examination and choose the test for translation. Candidates shall demonstrate quantitative methods competence by satisfactory completion of either PSYCH 2201 Psychological Statistics or SOC 3220 Sociological Statistics, or their equivalent.

### 2. Research Paper Option-36 hours total

To complete this option, the candidate must complete two 5-credit-hour seminars (each consisting of a 6000-level reading seminar plus 2 credit hours of supplementary work on a substantial research paper), in addition to the core. The candidate may choose a fourth



field in addition to the three already represented in the core to complete this option.

## The 2+3 B.A. and M.A. in History

The 2+3 B.A./B.S. – Ed and M.A. in History enables students of demonstrated academic ability and educational maturity to complete the requirements for both degrees in five years of full-time study. Because of its accelerated nature, the program requires the completion of lower-division requirements (15 hours) before entry into the three-year portion of the program. It also has prerequisites numbered 5000-5999 for graduate readings courses numbered 6000-6999. When all the requirements of the B.A./B.S. – Ed. and M.A. program have been completed, students will be awarded both the baccalaureate and master's degrees. A carefully designed program can permit a student to earn both degrees within as few as ten semesters.

The combined program requires a minimum of 137 hours, at least 5 of which must be at the senior level (HIST 4999 (p. 155)) and at least 32 of which must be at the graduate level (courses numbered in the 5000 and 6000 range). In qualifying for the B.A. or B.S. – Ed., students must meet all university and college requirements, including the requirements of the undergraduate major. In qualifying for the M.A., students must meet all university and Graduate School requirements, including satisfactory completion of at least 32 credit hours at the graduate level.

The semester they will complete 62 undergraduate credit hours, (including 15 credit hours of appropriate 1000-level coursework in the History Department and ART ED 5588 (p. 155)) interested students should apply to the Graduate Director of the Department of History for admission to the 2+3 combined degree program in History. A cumulative grade point average of 3.4 or higher in history courses, a writing sample, and three letters of recommendation from faculty are required for consideration. Students will be admitted to the 2+3 program under provisional status until they have completed 105 total credit hours toward their BA degree with a grade point average of 3.0 or higher. After completion of the provisional period, and with the recommendation of the graduate director, and approval of the graduate dean, students can be granted full admission into the program. Students will not be admitted to the program, if they have accumulated more than 105 credits. Students in the 2+3 program begin to pay graduate credit hour fees once they exceed the 105 credit hour threshold. Students must maintain a grade point average of 3.0 or higher throughout the combined program. Students who officially withdraw from the 2+3 combined degree program will be awarded the B.A. or B.S. – Ed. Degree when they have successfully completed all the requirements for the degree.

## Undergraduate History Requirements For Students in the 2+3 Program

The following requirements must be completed prior to enrolling in the 2+3 Program:

### 1000 Level

Select one of the following in U.S. History: 3

HIST 1001 (p. American Civilization To 1865  
155)

HIST 1002 (p. American Civilization 1865 To Present  
155)

HIST 1003 (p. African-American History  
155)

HIST 1004 (p. The History Of Women In The United States  
155)

Select one of the following in European History: 3

HIST 1030 (p. The Ancient Empires of the Mediterranean  
155)

HIST 1031 (p. Topics European Civilization: Emergence Of  
155) Western Europe To 1715

HIST 1032 (p. Topics In European Civilization: 1715 To The  
155) Present

Select one of the following in African, Asian, Latin American, or World History: 3

HIST 1041 (p. East Asian Civilization  
155)

HIST 1042 (p. East Asian Civilization  
155)

HIST 1051 (p. Latin American Civilization  
155)

HIST 1052 (p. Mexican Civilization  
155)

HIST 1061 (p. African Civilization: From The Beginning of  
155) Humanity to The End of The Slave Trade

HIST 1062 (p. African Civilization II: From Colonies to Nations  
155)

HIST 1175 (p. Arts And Ideas  
155)

HIST 1776 (p. History of American Leadership  
155)

Select two additional courses at the 1000 level on any subject. 6

### 2000 Level

HIST 2999 (p. Introduction to Historical Inquiry (must receive a  
155) grade of C or higher ) 4

Total Hours 19

### Once admitted to the program students must take the following courses:

Additional Undergraduate History Requirements For Students in the 2+3 Program

**HIST 4999** (p. 155), Senior Seminar (5)

NOTE: B.S.-Ed. students must also take SEC ED 4012 (p. 155), SEC ED 4013 (p. 155) and HIST 4014 (p. 155).

## Graduate History Requirements For Students in the 2+3 Program

- Three courses at the **5000-level** for 9 credit hours.
- Five courses at the **6000-level** for 17 credits beginning with **HIST 6000** (p. 155) (students must take two of their three 5000-level courses prior to enrolling in HIST 6000 (p. 155)), followed by at least three courses in a major field of study and one 5-credit course.
- In addition to this core, each candidate must select one of the two following degree options:
  - a. Thesis Option –32 hours total

In addition to the fulfilling the requirements listed above, the candidate choosing this option must enroll for 6 hours of thesis credit and submit an acceptable thesis. The thesis is based on original research in primary sources. Normally, theses do not

exceed 100 pages of text. Candidates receive a grade for the thesis upon its approval by an advisory committee. The committee consists of professors selected by the candidate after consultation with the major professor. One member of the committee must be from the department but outside the candidate's general area of study, and one may be outside the history department.

The advisory committee conducts an oral examination on the thesis during the candidate's last semester of residence.

The committee decides whether the candidate shall pass, fail or fail with the option to repeat the oral examination at a later date. Students may not take the oral examination more than twice. The second examination must be held no less than one and no more than two semesters following the date of the first examination. Summer session may be counted as a semester under this procedure, but students should be aware of the difficulties involved in assembling faculty committees during the summer.

Thesis candidates must demonstrate competence in one foreign language or in quantitative methods as applied to historical study. Candidates shall demonstrate foreign language competence by translating, with the use of a dictionary, 500 words in one hour. A member of the history faculty will conduct this examination and choose the test for translation. Candidates shall demonstrate quantitative methods competence by satisfactory completion of either PSYCH 2201 (p. 155), Psychological Statistics or SOC 3220 (p. 155), Sociological Statistics, or their equivalent.

#### b. Research Paper Option

To complete this option, the candidate must complete two additional 5-credit hour seminars (each consisting of a 6000-level reading seminar plus 2 credit hours of supplementary work on a substantial research paper.) The candidate may choose a fourth field in addition to the three already represented in the core to complete this option.

## Concentration in Museum Studies

The MA in History with a concentration in Museum Studies prepares students for professional careers in museums, historic sites and societies, cultural agencies, and related organizations. The degree addresses pressing needs of museums and heritage institutions for the 21<sup>st</sup> century: collaboration and community engagement, digital media and new technologies, and diversity and cross-cultural training. The curriculum includes courses on the sociocultural, historical, and intellectual foundations of museums; the theory and practice of public history and cultural heritage; professional development and practicums for multiple museum career paths; qualitative and quantitative research methods; digital media; non-profit resource development; community-based research and history; the comparative and cross-cultural study of material culture; and a strong grounding in the methods, professional protocols, and modes of analysis in History.

The Departments of History; Anthropology, Sociology and Languages; Art and Art History; the Missouri History Museum; the St. Louis Mercantile Library; and other historic sites and museums collaborate to sustain this innovative program, taught by professors and practicing professionals from St. Louis-area museums, historic sites, and cultural institutions. The degree trains students to advance the new paradigm of museum work and public history that focuses on inclusivity and the relationships between institutions and the communities that they serve. Upon completion of the

program, students are prepared for immediate entry into museum careers in a variety of positions.

## Admission Requirements

Prospective students for the Master of Arts in History with a concentration in Museum Studies must apply specifically for this program on the graduate application. Successful application for the M.A. in History does not automatically provide access to the Museum Studies program. Applications for the Master of Arts in History with a concentration in Museum Studies will be accepted only for the fall semester.

Prospective students must demonstrate high academic potential. Typically, the History department admits only students with at least a 3.2 grade point average in their undergraduate major; most successful applicants have higher grades. An undergraduate major in History is not required. Applicants must submit three letters of recommendation, preferably from former teachers and/or employers, and a sample of their written work. Applicants must also complete the Museum Studies Supplemental Application, which includes a statement of career intent.

Admissions decisions are based on the undergraduate transcript, the letters of recommendation, the sample of written work, and the supplemental application.

Applications must be received by the university no later than January 15.

## Program Requirements (39 hours)

All candidates for the M.A. in History with a Concentration in Museum Studies must complete the following coursework:

HIST 6001	The Historian's Craft	1-3
HIST 6131	Museum Origins and Evolution	3

Plus two of the following courses:

ANTHRO 6139	Practicum In Exhibit & Program Development
ART ED 5588	Museum Education and Visitor Research
HIST 6130	Collections Management and Registration
HIST 6132	Digital Video for Museums and Community History
HIST 6133	Museums and History in the Digital Age
HIST 6134	History Curatorship
HIST/ ANTHRO 6137/ ART HS 6037	Museum Organization and Operations

Students must also complete an additional 20-22 elective credits as approved by the Director of Museum Studies, of which at least 12 credits must be History courses. Students may choose electives from the preceding list, the History department curriculum, and a range of offerings in Anthropology, Sociology, and Languages; Art and Art History; Media Studies; and Nonprofit Management and Leadership. Courses address such topics as: community-based research, public archaeology, cultural resource management, quantitative and qualitative research methods, the history of visual arts in American museums, arts and visual resources management, material culture in the home, media law and ethics, documentary filmmaking, grant-writing, American philanthropy, and area and period studies. A maximum of six credits may be at the 3000 level.

Candidates conclude the degree with an exit project or thesis represented by the course numbered HIST 6138, ANTHRO 6138 or ART HS 6038 (5 credits.) This capstone project will demonstrate competence in museum

studies. The specific form will be customized to the interests and career aspirations of each student, as approved in advance by the candidate's advisory committee.

In addition to these requirements, candidates for the MA in History with a concentration in Museum Studies are required to demonstrate either oral or written proficiency in one second language (in addition to English). Proficiency at a level that enables the candidate to conduct research must be demonstrated by passing either an oral or written test, whichever is most appropriate for the candidate's research methodology, in a language that is relevant to the candidate's chosen specialization. The test will be designed through consultation with the candidate and the faculty of the Languages Program.

## Graduate Certificate in Museum Studies

The Graduate Certificate in Museum Studies provides interdisciplinary professional and academic training for museum professionals and others who seek to develop their practical skills and knowledge about museums. The program couples a strong intellectual foundation in the sociocultural, historical, and intellectual practices of museums with professional training for museum administration, curatorship, visitor research, digital media, and development. The Certificate is crafted to allow students to pursue course work that speaks to their particular career aspirations, drawing on classes from History; Anthropology, Sociology, and Languages; Art and Art History; Education; and Nonprofit Management and Leadership, as well as classes taught by museum professionals from the St. Louis area.

Applications for the Graduate Certificate in Museum Studies are accepted for the fall semester only. Prospective students wishing to pursue the Graduate Certificate in Museum Studies in conjunction with an MA degree should follow the normal application procedures for their respective Master's level program. Applicants wishing to pursue the Graduate Certificate in Museum Studies alone normally must have a GPA of 3.2 or higher. They should apply specifically for this certificate program, submit three letters of recommendation and a writing sample, and complete the Museum Studies supplemental application with their application for graduate work.

Admissions decisions are based on the undergraduate transcript, the letters of recommendation, the sample of written work, and the supplemental application.

Applications must be received by the university no later than January 15.

## Program Requirements (18 hours)

All candidates for Graduate Certificate in Museum Studies must complete HIST 6131 Museum Origins and Evolutions (3). They must also take at least two courses from the following list:

ANTHRO 6139	Practicum In Exhibit & Program Development	3
ART ED 5588	Museum Education and Visitor Research	3
HIST 6130	Collections Management and Registration	3
HIST 6132	Digital Video for Museums and Community History	3
HIST 6133	Museums and History in the Digital Age	3
HIST 6134	History Curatorship	5
HIST 6137	Museum Organization and Operations	3

Students must also complete an additional 7-9 credits as approved by the Director of Museum Studies. In addition to the courses listed above, offerings include classes in Anthropology, Sociology, and Languages; Art and Art History; Media Studies; and Nonprofit Management and

Leadership. Courses address such topics as: community-based research, public archaeology, cultural resource management, quantitative and qualitative research methods, the history of visual arts in American museums, arts and visual resources management, material culture in the home, media law and ethics, documentary filmmaking, grant-writing, American philanthropy, and area and period studies.

## Graduate Certificate in Public History and Cultural Heritage

The Graduate Certificate in Public History and Cultural Heritage at the University of Missouri-St. Louis is an 18-credit program that provides interdisciplinary training for students pursuing careers that engage communities with the past. The theoretical knowledge and practical experience gained through coursework and internships will prepare graduates for a wide variety of jobs in museums, historical societies, cultural resource agencies, historic preservation, community development, and tourism, particularly those located in the St. Louis region.

## Admission Requirements

Applicants wishing to pursue the Graduate Certificate in Public History and Cultural Heritage in conjunction with an MA degree should follow the normal application procedures for their respective Master's level program. Applicants wishing to pursue the Graduate Certificate in Public History and Cultural Heritage alone normally must have a GPA of 3.2 or higher and should apply specifically for this certificate program and submit three letters of recommendation and a writing sample along with their application.

## Program Requirements

All candidates for Graduate Certificate in Public History and Cultural Heritage must complete the following courses:

HIST 6101	Readings In American History To 1865	3-5
HIST 6124	Graduate Internship	3
HIST 6125	Practicum in Public History and Cultural Heritage	3

In addition, students must take an additional nine credits at the graduate level in courses approved by the Program Director. Courses available to fulfill this additional nine-credit requirement include:

ANTHRO 4309	Archaeological Field School	
ANTHRO 4310	Laboratory Methods In Archaeology	
ANTHRO 5312	Cultural Resource Management And Historic Preservation	
ED TECH 6454	Instructional Video Production	3
POL SCI 6470	Proseminar In Urban Politics	3

Please see the Program Director for additional courses that may be available

Total Hours 15-17

## Graduate Certificate in History Education

The Graduate Certificate in History Education is designed for practicing teachers, instructional coordinators, and history educators in the community who are seeking to deepen their knowledge of history education. It will offer history and social studies educators a program that integrates historical and educational knowledge, theory, and practice. The purpose of the certificate is to improve the practice of history education in schools and the community, to introduce history educators to metahistorical theory and practice, to deepen their historical knowledge,

and to encourage sophisticated teaching and curriculum development built on research at the intersection of history and the learning sciences.

## Admission Requirements

Applicants wishing to pursue the Graduate Certificate in History Education in conjunction with an MA degree or an MED should follow the normal application procedures for their respective Master's level program.

Applicants wishing to pursue the Graduate Certificate in History Education alone normally must have a GPA of 3.2 or higher and should apply specifically for this certificate program and submit three letters of recommendation and a writing sample along with their application.

## Program Requirements

All candidates for Graduate Certificate in History Education must complete:

HIST 6113	Readings in East Asian History <sup>1</sup>	
HIST/TCH ED 6115	Readings In African History	3
HIST 6116	Historical Thinking in Theory and Practice II	3

<sup>1</sup> This course will not be offered in 2014-2015. Please contact the department for more information.

Students must take an additional nine credits at the graduate level in History or Education courses as approved by the Program Director.

## Career Outlook for B. A. and M. A. graduates

An important rationale for the discipline of history is its centrality to the university curriculum and to the life experience. The ability to put events or developments into the context of the past is useful as well as pleasurable. Responses to a questionnaire sent to history graduates have indicated that alumni in a wide variety of fields are as conscious of and appreciative of their training in history as those who have chosen it as a profession. Men and women in business, lawyers, bankers, librarians, and foreign service officers have all found it relevant to their careers. Study and research in history sharpens organizational and writing skills important to success in business and the legal profession. A growing interest in local history has created employment opportunities in museum, archival, and preservation work.

## Career Outlook for M. A. with Concentration in Museum Studies

There are more than 8,000 museums in the United States. History museums constitute more than half of that total and employ approximately one-third of the 150,000 paid staff working in U. S. museums. While job requirements vary widely among individual museums and specific professional roles, the M.A. degree offered by this program qualifies graduates for a wide range of career opportunities, in history museums and in other types of museums as well. The Museum Studies Program provides students with placement assistance and counseling and with access to a wide range of information on career opportunities in the field, and program faculty use their extensive networks in the field to help identify opportunities and to place students.

## Sample Four Year Plan

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 HIST 1000+ level courses	6
HIST 1001, 1002, 1003, or 1004	3 HIST 1041, 1042, 1051, 1061, 1075, or 1076	3
Foreign Language 1001	5 Foreign Language 1002	5
General Education	3	
HIST 1030, 1031, or 1032	3	
	<b>15</b>	<b>14</b>
Second Year		
Fall	Hours Spring	Hours
HIST 2000-3999 level course	3 HIST 2999	4
Foreign Language 2101	3 General Education	6
General Education	6 Elective or minor	6
Elective or minor	3	
	<b>15</b>	<b>16</b>
Third Year		
Fall	Hours Spring	Hours
HIST 2000-3999 level course in African, Asian, or Latin American History	3 HIST 4143	3
General Education	3 HIST 2000-3999 level course	3
Elective or minor	6 General Education	3
ENGL 3100	3 Elective or minor	6
	<b>15</b>	<b>15</b>
Fourth Year		
Fall	Hours Spring	Hours
HIST 4142	3 HIST 4999	5
General Education	6 General Education	3
Elective or minor	6 Elective or minor	7
	<b>15</b>	<b>15</b>

Total Hours: 120

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.

## Courses

### ***HIST 1000 Selected Topics In History: 1-3 semester hours***

Prerequisite: Consent of Instructor Special topics in history. May be repeated for credit with consent of instructor.



**HIST 1001 American Civilization To 1865: 3 semester hours**

Evolution of the cultural tradition of the Americas from the earliest times to the mid-nineteenth century, with emphasis on the relationship of ideas and institutions to the historical background. Course fulfills the state requirement.

**HIST 1002 American Civilization 1865 To Present: 3 semester hours**

Continuation of HIST 1001 to the present. Course fulfills the state requirement. Either HIST 1001 or HIST 1002 taken separately.

**HIST 1003 African-American History: 3 semester hours**

A survey of African-American history from the beginning of the European slave trade to the modern Civil Rights era. This course meets the state requirement.

**HIST 1004 The History Of Women In The United States: 3 semester hours**

Same as GS 1004. A survey of women's history from the colonial era to the present.

**HIST 1030 The Ancient Empires of the Mediterranean: 3 semester hours**

Survey of ancient history in the near east, the Aegean, the central and western Mediterranean. Themes: politics and economy, war and society, culture, including art, literature, technology, religion and philosophy. The chronological span is from the neolithic period (7500-3000 B.C.) in the near east to the fall of the Roman Empire in the fifth century A.D.

**HIST 1031 Topics European Civilization: Emergence Of Western Europe To 1715: 3 semester hours**

Lectures and discussions on the development of western European society and tradition from approximately 1000 to 1715.

**HIST 1032 Topics In European Civilization: 1715 To The Present: 3 semester hours**

Lectures and discussions on the development of western European society and tradition from 1715 to the present.

**HIST 1037 The Wonders of Greece: Introduction to Greek History and Culture: 3 semester hours**

SAME AS ANTHRO 1037. Our democracy and culture have been heavily influenced by Greek civilization. This course will introduce students to the culture and civilization of Greece in order to provide a better understanding of our own society. The course will cover the political and military history, art, literature, philosophy, and science of Greece from prehistoric to modern times, with special emphasis on Greek civilization's enduring democratic and cultural ideals. The course will include screening of films and use of online resources.

**HIST 1038 Byzantine History and Culture: 3 semester hours**

Same as ANTHRO 1038. This course introduces the history of the Byzantine Empire from the fourth through the fifteen centuries. Covering more than a millennium of history, this course focuses on selected aspects of the empire's history, while adhering to a basic chronological frame. We will examine religious developments (monasticism, theological controversy, the Catholic-Orthodox Schism); military and cultural interactions with neighbors (Crusaders, Islam); and Byzantine culture, particularly art, literature, and architecture.

**HIST 1041 East Asian Civilization: 3 semester hours**

The development of Asian civilization from earliest times to the Manchu conquest.

**HIST 1042 East Asian Civilization: 3 semester hours**

Continuation of HIST 1041 with emphasis on the Asian response to the Western incursion. Either HIST 1041 or HIST 1042 may be taken separately.

**HIST 1051 Latin American Civilization: 3 semester hours**

A survey of selected topics important in the development of Latin America from pre-Columbian times to the twentieth century.

**HIST 1052 Mexican Civilization: 3 semester hours**

This course will focus on the history and culture of Mexico from the Aztecs to the mid-twentieth century. Among the topics to be covered are: the Aztecs, Cortez and the Conquest of Mexico, colonial institutions and culture, the obtaining of political independence, disorder and dictatorship in the nineteenth century, the Mexican Revolution, contemporary Mexico. This course meets the non-Euro-American requirement.

**HIST 1061 African Civilization: From The Beginning of Humanity to The End of The Slave Trade: 3 semester hours**

Introduction to cultural history from the emergence of early humankind to the abolition of the Atlantic slave trade. This course fulfills the Cultural Diversity requirement.

**HIST 1062 African Civilization II: From Colonies to Nations: 3 semester hours**

Survey of African initiative and response in the period spanning the loss and reassertion of independence. Either HIST 1061 or HIST 1062 may be taken separately.

**HIST 1075 World History to 1500: 3 semester hours**

A survey of the history of humankind to 1500 including the beginnings of civilization Mesopotamia, Africa, Asia and the Americas, the rise of Classical civilizations and the development of major transnational social, economic, political and religious networks.

**HIST 1076 World History Since 1500: 3 semester hours**

A survey of the history of humankind since 1500, emphasizing the growing interdependency of regional economic, political, and social systems. Topics will include imperialism, industrialization, and globalization.

**HIST 1111 Reacting to the Past: 4 semester hours**

Reacting to the Past is a series of historical simulations built around key moments and texts from the past. In each simulation, students are assigned a role and develop that character. The course offers students a rigorous academic experience in which they conduct historical research, speak, and write extensively. Because this course requires extensive writing, it fulfills the requirement for Freshman Composition.

**HIST 1776 History of American Leadership: 3 semester hours**

An introduction to the study of leaders in America that will cover different categories of political, cultural, social, and intellectual leadership and achievement. Crucial to the understanding of these categories is the question: how did leaders find their gift in becoming who they were and what leadership traits can be identified in the different categories under scrutiny.

**HIST 1999 Big History: From the Big Bang to the Blackberry: 9 semester hours**

SAME AS INTDSC 1999. An introduction to the humanities, social science, and science disciplines through a sweeping overview of natural and human history from the Big Bang to the present. Course will include lectures from faculty in various Arts and Sciences units, films, field trips, and group discussions.

**HIST 2000 Selected Topics In History: 1-4 semester hours**

Prerequisite: consent of instructor Special topics in history. The course may be repeated for credit with consent of the instructor.

**HIST 2001 Creating Early America: European Empires, Colonial Cultures, and Native Nations, 1565-1776: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. This content-rich course explores the transatlantic migrations and Indian interactions that laid the foundations of the American nation before 1776.

**HIST 2003 United States History: From Nation to Civil War: 3 semester hours**

Prerequisite: Soph standing or consent of the instructor. The "Era of Good Feelings"; the Age of Jackson; manifest destiny; the political and social developments of the antebellum period relating to the growth of sectionalism and the developing antislavery crusade.

**HIST 2004 United States History: The Civil War Era, 1860-1900: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor The Civil War, Reconstruction, industrial and urban expansion and their impact on American life.

**HIST 2005 The Modernization Of The United States: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor Studies in the economic, political and social development and crises of the maturing industrial United States between 1877 and 1940, and the growing importance of foreign relations.

**HIST 2006 Recent United States History: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. The economic, political and social developments and crises of post-industrial United States. The role of foreign affairs in American life.

**HIST 2007 History Of Missouri: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Lecture and readings. Seventeenth-century Spanish and French explorations and interaction with the Indians; settlement and organization of the Louisiana territory; lead mining and the fur trade; the Louisiana Purchase; the Missouri territory; the struggle for statehood and slavery; antebellum politics; banking and internal improvements; westward expansion; Civil War and reconstruction; postwar agrarian politics, industrialization; Irish, German, and southern European immigration; the Progressive reforms-- Political and economic changes; and twentieth-century social changes and political developments. Course satisfies the state requirement.

**HIST 2008 History Of St. Louis: 3 semester hours**

Prerequisites: Sophomore standing or the consent of the instructor This course will provide an overview of the history of the St. Louis metropolitan region from its founding in 1764 to the present. Main topics will include: the St. Louis region before the Europeans, forces leading to the founding of the city, St. Louis as an "urban frontier", the Age of Steam on water and rail, the questions of slavery and the Civil War, St. Louis in the Gilded Age, the World's Fair, early efforts at city planning, impact of the automobile, St. Louis during the Depression and World War II, post-war suburbanization, urban renewal St. Louis style, school desegregation, the Schoemehl years, the emergence of St. Louis "Edge Cities", and St. Louis 2004.

**HIST 2009 St. Louis And The West: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. An examination of the role St. Louis played in the evolution of the North American West, both in the United States and Canada, from the fur trade of the late eighteenth century to the opening of the Texas oil fields in the early twentieth century. Special emphasis will be given to competition between river and rail transportation corridors, and hence to the rivalry that developed between St. Louis and Chicago.

**HIST 2010 From Sea to Shining Sea: The American Frontier 1763 - 1890: 3 semester hours**

This is a history of the colonization of the Great West, from the end of the French and Indian War to the official closing of the frontier in 1890. The westward movement will be examined as a major factor in explaining American development.

**HIST 2011 American West: The Truth Behind the Hollywood Myths: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor An exploration of the history of the American West from the 1750s to present, with emphasis on the role of transportation. Urban gateways such as St. Louis and San Francisco and transportation corridors such as the Missouri River and the Santa Fe and Oregon trails will be of particular importance.

**HIST 2012 The Indian In American History: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. Investigates Native American encounters with non-Indian peoples between 1600 and 1900, analyzing how traditional Indian cultures changed to meet a variety of new challenges introduced to North America by Europeans and Africans. The approach will be interdisciplinary and ethnohistorical with emphasis placed on case studies of important native nations at key turning points in their history.

**HIST 2013 The Rise and Fall of American Cities: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. The physical and spatial growth of U.S. cities from colonial times to the present with special attention to the impact of industrialization, public policy, and advances in transportation technology.

**HIST 2015 Topics In African-American History: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Will explore a salient topic in African-American history. Such historical documents as personal narratives, letters, government documents, and autobiographies as well as monographs, articles, and other secondary sources will be used to explore topics such as slavery and slave culture in the United States; blacks and America's wars; the African-American intellectual tradition; or, African-Americans and the Great Migration.

**HIST 2016 African-American History: From Slavery to Civil Rights: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor: This course examines the impact of region, gender, and class on black activism by focusing on topics such as remembering slavery and emancipation, institution and community building during segregation, changing strategies in politics and protest, and the emergence of the direct action civil rights movement.

**HIST 2017 African-American History: From Civil Rights To Black Power: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. A seminar on the activities, ideas, movement centers, and personalities that created the Civil Rights and Black Power movements in the U.S. from the 1950's through the 1970's. Some familiarity with the broad contours of U.S. History is presupposed. Special attention will be devoted to the roles of the African-American masses, college students, and women, and to the points of conflict, cooperation, and intersection between African-America and the larger American society.

**HIST 2020 History of Women and Social Movements: 3 semester hours**

Same as GS 2020. Prerequisites: Sophomore standing or consent of the instructor. This course explores the history of women and social movements in the nineteenth and twentieth century United States. It considers social and political movements such as abolitionism, women's suffrage, progressivism, the labor movement, the civil rights movement, and second wave feminism.

**HIST 2022 The Automobile and American Life: 3 semester hours**

This course uses the automobile as a window into 20th-century American life. It examines the influence of automobility on patterns of work and leisure; on struggles over gender, race and ethnicity; on individualism, consumerism, and government regulation. It also surveys mass automobility's effects on our physical and natural environments and looks at future prospects of automobility in the information age.

**HIST 2023 US Foreign Relations and Military History To 1900: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor  
 Bulletin description: A survey of American foreign and military affairs to 1900, with particular emphasis on European conflicts, national expansion, Indian Wars, and the Mexican War.

**HIST 2024 US Foreign Relations and Military History Since 1900: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. A survey of American foreign and military affairs since 1900, with particular emphasis on the major wars during the period and the cold war era. Consideration of the nation's changing place in a changing world.

**HIST 2025 Topics in Military History: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. This course will examine a prominent military engagement in the past and consider strategic, diplomatic, and broad cultural aspects of the event. The particular military engagement investigated will vary from one semester to another. May be repeated if topics differ.

**HIST 2028 Sex, Drugs, and Rock 'n Roll: The 1960s in Song, Fashion, Dating, and Protest: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. This course examines the turbulent 1960s and the period's identification with sex, drugs, and rock 'n roll by looking historically at drugs, music, and changes in gender roles. It uses these histories to explore the cultural and political movements of the 1960s (1955 through 1973)-civil rights, black power, new left, antiwar, and feminist movements-along with the emergence of the counterculture, hallucinogenic drugs, the sexual revolution, and the whole hip scene. The class is discussion-based. There is a mid-term exam and several assignments, including a class presentation and papers on readings, music, and movies.

**HIST 2052 History Of Latin America Since 1808: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. Emphasis on the attainment of political independence and social, political, and economic developments of the nineteenth and twentieth centuries in Latin America. This course satisfies the cultural diversity requirement.

**HIST 2053 Modern Mexico: 3 semester hours**

Mexico from the Revolution to the present, covering major political, social, and cultural developments of the twentieth century including foreign population migration, the student movement of the 1960s, the rise and fall of the PRI, and the impacts of globalization.

**HIST 2063 African Diaspora To Abolition of the Slave Trade: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Comparative in scope, the course examines major themes in West and Central Africa and their impact on the history of Africans in the Atlantic diaspora up to 1800. Themes include: slavery, multi-racialism, economics of the South Atlantic system, political dimensions and the social transformation from heterogeneous crowds to new and homogeneous communities. Linkages between Africans and their descendants in the Atlantic communities of Latin America, the Caribbean, as well as North America will be stressed. This course fulfills the Cultural Diversity requirement.

**HIST 2064 African Diaspora in the Age of Migration: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Comparative in scope, this course uses a comparative methodology to examine the major themes in West and Central Africa and their impact on the history of Africans in the Atlantic diaspora after 1800. This course fulfills the Cultural Diversity requirement.

**HIST 2081 Rome: The Republic And Empire: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. A survey of the development of Roman political and cultural life from the Legendary founding of the city in central Italy in 753 BC to the death of the Emperor Justinian in 565 AD.

**HIST 2082 Christianity: From Jesus to Martin Luther: 3 semester hours**

The purpose of this course is to orient students in the scholarship about the Christian Church in the Western tradition as an institution. Open discussion is encouraged, and all traditions will be respected in the interest of expanding our knowledge of the past as well as the living communities today.

**HIST 2083 Europe In Early Middle Ages: Paganism to Christianity: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. The end of the Roman Empire as a universal entity; the successor states of the Mediterranean and Northern Europe; the emergence of a Western Christendom under the Franks; the development of feudal states; the Gregorian reforms; the Crusades; the revival of education and learning in the twelfth century.

**HIST 2084 Crusades and Plagues: Europe In The High And Late Middle Ages: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. Medieval society at its political, economic, and intellectual zenith; the crisis of the later Middle Ages; the Papal schism and the development of national particular churches within Catholicism; and the rise of estate institutions.

**HIST 2085 Medieval England: From Arthur to Richard III: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. A brief summary of the Anglo-Saxon heritage and the impact of the Norman Conquest, followed by an investigation of the institutional, social, and legal evolution of the realm of England. English development will be viewed in its European context.

**HIST 2086 Reformation of Europe: Beyond Religion: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. Religious, intellectual, political, and socioeconomic developments of the sixteenth century.

**HIST 2088 Europe and the Renaissance: Not Just for Painters Anymore: 3 semester hours**

Prerequisites: Sophomore Standing or consent of the instructor. The Italian and Northern Renaissance as a distinct age; political, socioeconomic, intellectual, religious, and artistic movements attending the decline of medieval society, and the transition to the early modern period.

**HIST 2089 Religion, Philosophy & Science in History: Introduction to The Intellectual History Of The West: 3 semester hours**

Sophomore standing or consent of instructor. An examination of some of the most important ideas and debates that shaped the Western world. Topics include Platonic versus Aristotelian models of the universe, Medieval synthesis and the challenge of Renaissance naturalism, the Scientific Revolution, the political ideas of Thomas Hobbes, John Locke, and Jean-Jacques Rousseau, romanticism, Marxism, Darwinian evolution, Freudian psychology, existentialism, structuralism and poststructuralism.

**HIST 2090 Europe in the Eighteenth Century: From the Glorious Revolution to the Napoleonic Era: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. This course offers intensive study of Europe in the period between the Glorious Revolution in England in 1688 and the fall of Napoleon in 1815. Particular emphasis will be placed on the theme of the rise of the modern. Specifically, the course will examine the struggle by intellectuals, politicians, and military figures to move Europe forward from the old regime system. Particular emphasis will be placed on the works of Voltaire, Rousseau, Locke, and Paine.

**HIST 2091 Europe in the Nineteenth Century: From Waterloo to World War I: 3 semester hours**

Prerequisites: Sophomore standing or Consent of Instructor. This course offers intensive study of Europe in the period between the fall of Napoleon in 1815 and the turn-of-twentieth century. Particular emphasis will be placed on the themes of industrialization, overseas colonization, and the development of nationalist, socialist, and liberal ideas.

**HIST 2095 History of Ireland: 3 semester hours**

This course will explore Irish history from medieval to modern times. Topics will include issues of land, settlement, immigration, and modernization.

**HIST 2102 Introduction To Gender Studies: 3 semester hours**

Same as GS 2102, SOC WK 2102, and SOC 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

**HIST 2105 Sex in America: 3 semester hours**

Prerequisites: Sophomore Standing or consent of the instructor. Dissected, categorized, evaluated, feared, and enjoyed: sex in America's past, including our current obsession with it, is the primary concern of this course. Why and how have sex and sexuality become so central to identities, culture, politics, and now, our history? This course explores the complex and often hidden history of sex in the United States. It uses sex to examine big political ideas of citizenship, democracy, and cultural inclusion.

**HIST 2116 History of Greece and The Balkans: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. This course is designed to introduce students to the history of the Balkans with particular emphasis on Greece. Although a part of the course will deal with nation building and nationalism, we will also examine the broad historical trends that have shaped the distinct cultural, social, and political developments in the region from the late 18th century until the end of the 20th century.

**HIST 2117 Greek History And Culture: 3 semester hours**

Same as ANTHRO 2117. Greek civilization has had a deep impact on contemporary society in art; social, political, and economic organization; philosophy; law; medicine; and science. This course covers major aspects of Greek history and culture from antiquity to the present. It considers the major political and military events of Greek History, as well as important aspects of Greek culture, including sports and the history of the Olympic Games, literature, philosophy, and mythology.

**HIST 2118 Modern Greek History and Culture: 3 semester hours**

Same as ANTHRO 2118. A history of Modern Greece, from the fall of Constantinople (1453) to the present, with an emphasis on social, cultural, and political developments. The course will provide a chronological framework of events and it will utilize art, literature, and folklore, along with traditional historical sources, to gain a better understanding of the richness of modern Greek history and culture.

**HIST 2219 United States Labor History: 3 semester hours**

Examines the history of work and the working class in the United States. It focuses on the transformation of the workplace, the evolution of working class consciousness and the development of the labor movement, the role of race, gender and ethnicity in uniting or dividing the working class, and the nature of labor's relations with other social groups in the political arena. Particular emphasis on the political and economic conditions and strategies of periods when working class power was growing.

**HIST 2770 Introduction To Transportation: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. Introduction to Transportation provides an overview of the transportation sector, including history, providers, users, and government regulation. The importance and significance of transportation modes of rail, water, motor, air, and pipeline: the demand and supply of transportation, and the managerial aspects of these modes of transport will be covered in the course.

**HIST 2772 History Of Aviation In American Life: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. Course focuses on the history of aviation in the United States from balloon flights preceding the Wright brothers through the terrorist attacks in September 2001 with emphasis upon how aviation and aviators have influenced American society and culture. Themes include the evolution of aviation technology, the growth of the commercial/military aviation/aerospace industries, issues of race and gender in aviation, the development of America's commercial airlines, aviation's influence upon American art, films, advertising, and literature, the significance of the space race, and the role of aerial weapons of war.

**HIST 2773 Urbanization And Transportation: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. Course provides an overview of urbanization and transportation in the United States. Besides examining the history of urbanization and transportation, this course offers comparisons between contemporary international urban areas for the purpose of placing the US experience in context. Additionally, the course covers key issues surrounding the planning, development, and consequences of infrastructure facilitating the movement of people and freight in the urban setting, such as financing, transport technologies, political policies, economic growth, and demographic trends.



**HIST 2800 History Of American Economic Development: 3 semester hours**

Same as ECON 2800. Prerequisites: ECON 1000 or ECON 1001 or consent of instructor. Uses economic concepts to explain historical developments in the American economy, beginning with the hunter gatherers who crossed the Bering land bridge around 12,000 BC. Main topics include the Native American economies, European exploration and conquest, the colonial economies, indentured servitude, the American Revolution, the US Constitution, westward expansion, transportation, the Industrial Revolution, state banking and free banking, slavery, the Civil War, post-bellum agriculture, the rise of big business and antitrust, banking panics, the Federal Reserve Act, the First and Second World Wars, the New Deal, and the growth of government in postwar economy.

**HIST 2999 Introduction to Historical Inquiry: 4 semester hours**

Prerequisites: Sophomore standing or consent of instructor. This course is designed to develop historical thinking skills. Emphasis will be placed on reading of historical sources, exploring the rhetoric of history, identifying perspectives in historical sources, and the process of formulating historical questions. Other topics covered will include proper citation procedures and historiography. The course is writing intensive and will involve primary source research at libraries and archives.

**HIST 3000 Selected Topics In History: 3 semester hours**

Prerequisite: Junior standing or consent of instructor. Special topics in history to be determined by the field, availability of instructors and interest of students. The course may be repeated for credit with the consent of the instructor.

**HIST 3031 Modern Japan: From the Meiji Restoration to the Present: 3 semester hours**

Prerequisite: Junior Standing Or Consent Of Instructor. The Economic, Social, And Political Development Of Modern Japan.

**HIST 3032 Modern China: From the Decline of the Qing Empire to the Global Age: 3 semester hours**

Prerequisite: Junior Standing Or Consent Of Instructor. The Economic, Social, And Political Development Of Modern China.

**HIST 3033 Modern History Of The Asian Pacific Rim: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. A course on the modern history of the broad economic region of East and Southeast Asia as well as the region's interaction with the United States. The course is designed for students who need to understand the political and economic dynamics of the countries around the Pacific Basin and the historical roots of various problems.

**HIST 3034 History of Technology and Environment in China: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. Course explores how the Chinese used technology to manage the economy, environment and disasters which paralleled developments in the West. Discussions on the political function of Chinese science and technology, and on its continued influence on Chinese culture and society.

**HIST 3041 Topics In American Constitutional History: 3 semester hours**

Prerequisite: Junior standing or consent of instructor. Origins and development of the principal institutions and ideas of the American constitutional systems; the role of the constitution and the Supreme Court in the growth of the nation; important Supreme Court decisions; great American jurists and their impact upon the law; historical background to current constitutional issues.

**HIST 3043 History Of Crime And Justice: 3 semester hours**

Same as CRIMIN 3043. Prerequisites: Junior standing or consent of instructor. The analysis, development, and change in philosophies and responses to crime. Emphasis on major forms and definitions of crime, the emergence of modern policing, the birth of the prison, and the juvenile court system.

**HIST 3051 Latin America: From Conquest to Independence: 3 semester hours**

Prerequisites: Junior standing or consent of Instructor. Latin America from the pre-Columbian Civilizations to 1808, stressing social, political, and economic institutions in the Spanish colonies. This course satisfies the Cultural Diversity requirement.

**HIST 3092 Europe, 1900-1950: War And Upheaval: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. The impact of World Wars I and II and the search for equilibrium.

**HIST 3093 Europe, 1950-Present: Peace And Prosperity: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. A survey of the main social, economic, political, military, and cultural trends in Europe since the outbreak of World War II.

**HIST 3097 Spain: From Superpower to Napoleon's Puppet: 3 semester hours**

Prerequisite: Junior standing or consent of instructor A survey of Spanish history from the fifteenth century, emphasizing its period of imperial greatness and examining the effects of empire on national development.

**HIST 4001 Special Readings: 1-10 semester hours**

Prerequisite: Consent of the instructor. Independent study through readings, reports and conferences.

**HIST 4002 Collaborative Research: 3 semester hours**

Prerequisite: Consent of instructor Faculty-student collaboration on a research project designed to lead toward the publication of a jointly-authored article. The faculty member will direct the research.

**HIST 4003 Internship: 3-6 semester hours**

Prerequisites: Consent of Supervising instructor and instituon offering the internship Supervised practicum in a museum, historical agency, and other institution offering an opportunity for hands-on experience in public history. This elective course supplements but does not replace the requirements for a baccalaureate degree in history. May not be taken for graduate credit.

**HIST 4014 World History For The Secondary Classroom: 3 semester hours**

Prerequisites: TCH ED 3310 or consent of the instructor. This course is required for Social Studies certification. Adapts the themes and subject matter of World History to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting themes of World history, on expanding bibliography, and on choosing methods of inquiry for use in an interactive classroom. Cannot be counted towards the minimum 39-hour history major requirement, but can be counted towards the 45 hour maximum and for Social Studies Certification. Not available for graduate credit.

**HIST 4142 Inquiries in U.S. History: 3 semester hours**

Prerequisites: HIST 2999. This course will develop historical thinking and writing skills through investigation in topics in National History.

**HIST 4143 Inquiries in World History: 3 semester hours**

Prerequisites: HIST 2999. This course will develop historical thinking and writing skills through investigation in topics in World History.

**HIST 4999 Senior Seminar: 5 semester hours**

Prerequisites: HIST 2999, consent of department and presentation of three examples of formal written work submitted in prior upper-division courses in history. Studies in historical methodology and historiography. Directed readings, research, and writing leading to the production of an original piece of historical scholarship. An exit interview is required. Senior seminar is required of all history majors. May not be taken for graduate credit.

**HIST 5000 Advanced Selected Topics In History: 3 semester hours**

Prerequisite: Graduate standing Special topics in history. The course may be repeated for credit with consent of the instructor.

**HIST 5142 Advanced Inquiries in U.S. History: 3 semester hours**

Prerequisite: Graduate standing. This course will develop historical thinking and writing skills through investigation in topics in United States history.

**HIST 5143 Advanced Inquiries in World History: 3 semester hours**

Prerequisite: Graduate standing This course will develop historical thinking and writing skills through investigation in topics in World history.

**HIST 5592 The History of the Visual Arts in American Museums: 3 semester hours**

Same as ANTHRO 5592 and ART HS 5592. Prerequisites: Graduate Standing and consent of instructor. This course is an introduction to selected topics in the history of museology, focusing on art and anthropology museums as sites for the interpretations of art and culture, and as contested meeting grounds for various views of history and culture.

**HIST 6000 The Historian's Craft: 1-3 semester hours**

This course will introduce incoming students to graduate work, both in the field of history generally and to the M.A. program at UM-St. Louis in particular. It will familiarize them with the fields of historical study and the UMSL faculty who teach them, protocols of the profession, and methodologies of historical research, writing, and analysis. It will also help students learn about and prepare for careers outside the academy and/or Ph.D. programs in the field. Students may be required to attend colloquia off campus.

**HIST 6001 Introduction to Public History and Cultural Heritage: 3 semester hours**

Prerequisites: Graduate Standing or Consent of Instructor. This seminar will introduce students to the theory and practice of public history and cultural heritage. Readings will acquaint students with these fields of study and offer commentary on a variety of strategies for making the past relevant for contemporary audiences.

**HIST 6013 Historical and Theoretical Foundations of US History in Schools and Communities: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor The intent of this course is to foster critical inquiry into school and public presentations of historical knowledge. Particular emphasis will be placed on defining the broad and connecting themes of U.S. History and the political and cultural struggles that have shaped school curriculum and public discussion since the nineteenth century.

**HIST 6014 World History For The Secondary School Classroom: 3-6 semester hours**

Prerequisites: Graduate standing or consent of instructor The intent of this course is to adapt the themes and subject matter of World history to the secondary classroom and to train teachers in the methodology of Socratic symposium, techniques designed to maximize the use of sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting themes of World history, on expanding bibliography, and on methods for choosing primary sources for use in an interactive classroom. HIST 6014 may not be used to meet history degree requirements.

**HIST 6102 Readings In American History Since 1865: 3-5 semester hours**

Prerequisites: Graduate standing and consent of instructor. Directed readings and writing on selected topics and areas in American history since 1865.

**HIST 6115 Historical Thinking in Theory and Practice I: 3 semester hours**

Same as TCH ED 6115. Prerequisites: Graduate Standing or consent of instructor. This course explores theoretical and research literature on historical thinking. It further examines effective teaching strategies and curriculum materials that facilitate historical thinking and reading skills while also broadening content knowledge. It will familiarize students with text and web-based resources available for instruction.

**HIST 6116 Historical Thinking in Theory and Practice II: 3 semester hours**

Same as HIST 6116. Prerequisites: HIST 6115 / TCH ED 6115 or consent of instructor. Building upon HIST 6115 / TCH ED 6115, this course emphasizes the design, implementation, and assessment of teaching materials and practices that foster historical thinking and reading. In this hands-on, action research course, students will focus on their own teaching materials and practices to improve their capacity to teach and assess students' historical thinking.

**HIST 6121 Directed Readings: 1-3 semester hours**

Prerequisites: Consent of a member of the Doctoral Faculty. Directed research at the graduate level.

**HIST 6122 Collaborative Research: 3-6 semester hours**

Prerequisites: Graduate Standing and Consent of Instructor Faculty-student collaboration on a research project designed to lead toward the publication of a jointly-authored article. The faculty member will direct the research.

**HIST 6123 Thesis Seminar: 1-6 semester hours**

Prerequisites: Graduate standing and consent of instructor. Thesis research and writing on a selected topic in history.

**HIST 6124 Graduate Internship: 3 semester hours**

Prerequisites: Consent of supervising instructor and institution offering the internship. Supervised practicum in a museum, historical agency, and other institution offering an opportunity for hands-on experience in public history.

**HIST 6125 Practicum in Public History and Cultural Heritage: 3 semester hours**

Prerequisites: Graduate Standing or Consent of Instructor. In collaboration with a designated community partner, students will research and interpret the past for contemporary audiences. The course will combine traditional classroom sessions with hands-on training.

**HIST 6130 Collections Management and Registration: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. Most of the institutions that we call museums collect objects. A collecting institution requires a collections manager or a registrar to track, manage, and insure the safety of its objects, whether it collects art, artifacts, specimens, or live organisms. This course covers collections care and management from acquisition to evaluation, documentation, care, storage (or maintenance), loans, exhibitions, contracts, risk preparedness, and policy-making. It focuses on the practical knowledge and skills needed for collections management and registration. While much of the course material is drawn from historical, ethnographic, and art collections, the basic principles apply broadly to all collecting institutions.

**HIST 6131 Museum Origins and Evolution: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. This course traces the social and cultural history of museums from their origins in curiosity cabinets, princely collections, freak shows, and exhibitions, through their late 19th and early 20th century institutionalization, to present-day developments such as blockbuster exhibitions, community collaborations, masterpiece architecture, and the spread of museal and heritage institutions around the globe. Topics include colonialism, modernity, and the production of taxonomical knowledge; museums and nationalism; theories of culture, patrimony, and ownership; manufacture, marketing, and museums; the relationships between museums and academia; identity politics and culture wars; community-based initiatives; and virtual and digital museum spaces.

**HIST 6132 Digital Video for Museums and Community History: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. This course covers basic production and post-production in digital video, and examines how digital video has been and can be used for community history projects and museum installations. Students will learn basics of shooting, lighting, sound, scripting, and non-linear editing; interviewing and observational footage; and produce a series of documentary shorts. Readings will include the special characteristics of the cinematic medium and case studies of digital video for community-based research, advocacy, and museum audiences.

**HIST 6133 Museums and History in the Digital Age: 3 semester hours**

This course introduces and explores the key issues, analyses, critical debates, opportunities and potential drawbacks for museums and public historians using digital media to engage with communities. Students will gain facility in implementing digital strategies for museum and public history initiatives, including how to plan, manage, and assess the success of media projects.

**HIST 6134 History Curatorship: 5 semester hours**

Prerequisites: Graduate standing and consent of instructor. Principles and practices of curatorship in history museums. Historiography and research in material culture; theoretical foundations; methodologies for collecting and curating collections; legal and ethical issues; interpretation; role of the history curator in exhibit and program development; responsibilities to the community.

**HIST 6135 Foundations Of Museology I: 3 semester hours**

Same as ART HS 6035 and ANTHRO 6135. Prerequisites: Consent of Director of Museum Studies Program. Concepts for understanding museums in their social and cultural context; history of museums; museology and general social theory; information transfer vs meaning-making models; museums and communities; the changing role of museums; museums as complex organizations; process models of museology.

**HIST 6137 Museum Organization and Operations: 3 semester hours**

Same as ART HS 6037 and ANTHRO 6137. Prerequisites: Consent of Director of Museum Studies Program. This course looks at museum organization and operations in the 21st century. As museums become more focused on visitors, communities, and private donors, their structures, staffing, and practices have changed. This course introduces students to the wide range of museum professions, the evolving function of museums, the effects of new technologies, and the challenges of administration and funding in constrained economic circumstances. The course includes scrutiny of ethical issues such as disputed collections, intellectual property rights, organizational conflicts, and community collaboration and planning.

**HIST 6138 Museum Studies Master's Project: 5 semester hours**

Same as ART HS 6038 and ANTHRO 6138. Prerequisites: Consent of Director of Museum Studies Program. Research and writing/ exhibit development on a selected topic.

**HIST 6140 Readings in Metropolitan History: 3-5 semester hours**

Prerequisite: Graduate Standing Directed readings and writing on selected topics and areas in Metropolitan History.

**HIST 6141 Readings in Regional History: 3-5 semester hours**

Prerequisite: Graduate Standing Directed readings and writing on selected topics and areas in Regional History.

**HIST 6142 Readings in U.S. History: 3-5 semester hours**

Prerequisite: Graduate Standing. Directed readings and writing in selected topics and areas in United States History.

**HIST 6143 Readings in World History: 3-5 semester hours**

Prerequisite: Graduate Standing. Directed readings and writing on selected topics and areas in World History.

**HIST 6150 Directed Readings in Metropolitan History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

**HIST 6151 Directed Readings in Regional History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

**HIST 6152 Directed Readings in U.S. History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

**HIST 6153 Directed Readings in World History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

## Interdisciplinary Programs

The university offers a number of interdisciplinary programs and courses. These programs usually combine course offerings from several departments so the subject is examined from a multidisciplinary approach. While most persons who earn certificates do so in the process of completing their undergraduate degree, non-degree seeking students may complete a certificate. Below are descriptions of these interdisciplinary offerings:

- Bachelor of Liberal Studies degree
- Bachelor of Interdisciplinary Studies degree
- Interdisciplinary undergraduate certificates
- Interdisciplinary minors
- Interdisciplinary courses

Interdisciplinary certificates for international or areas studies are housed in the Center for International Studies.

## Bachelor of Liberal Studies (BLS)

The Bachelor of Liberal Studies is a degree program that enables students to combine structured areas of academic emphasis in ways more relevant to their interests than the standard academic major.

Students who participate in this program must declare their areas of study (two minors or a minor and undergraduate certificate) at the time they declare that BLS is their intended degree. The plan of study must be approved at the beginning of the program.

The BLS program is administered through the Department of Philosophy.

To obtain a Bachelor of Liberal Studies (BLS), a student must complete:

- UMSL General Education Requirements (consult General Education (p. ) section of course listings)
- In addition, students must complete the State Requirement (3) and Cultural Diversity Requirement (3) if not met in General Education course selection
- The university requirement of proficiency in English Composition
  - ENGL 1100 - First Year Writing
  - Junior Level Writing
- The university requirement of proficiency in Mathematics (to be completed in first 24 hours at the university)
- A Liberal Studies Concentration (33-41 hours) to consist of two designated BLS Minors in participating departments or other units (minimum of 15 hours each) or
- A designated minor and any undergraduate certificate (minimum of 15 hours in each). No course may be used more than once.
- A capstone course<sup>1</sup> (minimum of 3 hours) selected from one of the minors that make up the identified BLS core.

### Also Required

- Minimum of 45 credit hours in upper level course work (2000 or higher)
  - Electives 28-42
  - A minimum of 120 credit hours
  - Overall GPA of 2.0 or better
  - GPA of 2.0 or better in BLS combination areas (unless otherwise specified)
  - Minimum grade of C in all courses used in BLS combination areas
  - Residency requirement, in addition to campus residency, unless otherwise specified, 9 graded hours in each minor and certificate at 2000 level or above and one capstone course

<sup>1</sup> Note: Not all minors have a designated BLS capstone course so students must be careful to pair minors and certificates so that they have a capstone course.

The College of Arts and Sciences (CAS), Fine Arts and Communication (CoFAC), Business Administration (BA), and the Pierre Laclède Honors College (PLHC) have joined together to make available Liberal Studies combinations involving the following units:

- Department of Anthropology, Sociology and Languages(CAS)
- Department of Art and Art History, (CoFAC)
- Department of Biology, (CAS)

- College of Business Administration, (BA)
- Department of Chemistry and Biochemistry, (CAS)
- Department of Communication, (CoFAC)
- Department of Criminology and Criminal Justice, (CAS)
- Department of Economics, (CAS)
- Department of English, (CAS)
- Department of History, (CAS)
- Pierre Laclède Honors College (PLHC)<sup>1</sup>
- Department of Mathematics and Computer Science, (CAS)
- Department of Media Studies (CoFAC)
- Department of Music, (CoFAC)
- Department of Philosophy, (CAS)
- Department of Physics and Astronomy, (CAS)
- Department of Political Science, (CAS)
- Department of Psychological Sciences, (CAS)
- Department of Theatre (CoFAC)
- Gender Studies Program, (CAS)
- Undergraduate certificates

<sup>1</sup> Must be admitted to Honors program.

## Bachelor of Liberal Studies: Capstone and Other Restrictions

1. Students who are planning to earn a Bachelor of Liberal Studies degree should declare the BLS as their major within the first 90 hours of the program. Declaration past this time may prevent timely graduation as all capstone courses are not available every semester.
2. The School of Social Work, as well as the Colleges of Education, Nursing, and the Joint Engineering Program are not participants in the BLS program.
3. The following Colleges/Departments participate in the BLS program but do not offer a capstone course and must be paired with a minor from one of the areas listed below: Business, Studio Art, Theater/ Dance, Statistics, Undergraduate Certificates and Interdisciplinary minors.
4. Students admitted to the Pierre Laclède Honors College who wish to present the Honors Certificate as a minor for the BLS must complete the Honors Capstone, (one or two credit hours) and also direct three to six hours of their Honors independent study requirement to work demonstrably relevant to their BLS program. Students should consult the BLS faculty advisor in the Honors College about this requirement.
5. The capstone is required in addition to the courses presented for the minor. A minimum grade of C must be earned in the capstone course. The capstone course is not counted toward the minor residency requirement.
6. Students choosing to combine the minor in History of Science and Technology with a minor in the Philosophy of Science and Technology may use the same course to satisfy the Logic and Methodology requirement for both minors and may select either PHIL 4491 or HIST 4999 as the capstone. However students selecting HIST 4999 must have also taken HIST 2999.
7. The following have identified a Capstone, so at least one of these minors must be included in the BLS program:



**Anthropology**

One additional 4000 level course in Anthropology not used in the minor 3

**Art & Art History**

One additional 4000 level topics course in Art History not used in the minor 3

**Biology**

BIOL 4889 Senior Seminar 2

**Chemistry/Biochemistry**

3 total hours from the options listed: 3

CHEM 3022 Introduction To Chemical Literature

CHEM 3905 Chemical Research

CHEM 4897 Seminar

**Communication**

One additional 3000/4000 level Communication course not used in the minor 3

**Criminology & Criminal Justice**

One additional 4000 level course in Criminology and Criminal Justice, not used as part of the minor. 3

**Economics**

One additional 4000 level Economics course (except ECON 4105, ECON 4160, and ECON 4550) not used in the minor 3

**English**

One additional 4000 level English Literature course not used in the minor. <sup>1</sup> 3

**Languages and Cultures**

FRENCH 3211 Contemporary French Culture 3

SPANISH 3210 Hispanic Culture And Civilization: Spain 3

or SPANISH 321 Hispanic Culture And Civilization: Spanish America

JAPAN 3280 Readings in Japanese 3

**History**

HIST 4999 Senior Seminar 5

**Honors College <sup>2</sup>**

3 total hours taken from the options listed:

HONORS 410 Independent Portfolio Writing

HONORS 490 Independent Study In Honors

or HONORS 491 Independent Study: Internships

**Mathematics/Computer Science**

Computer Science: One additional 4000 Level Course in Computer Science not used in the minor. 3

Mathematics: One additional 4000 Level Course in Mathematics not in the minor. 3

**Media Studies**

One additional 4000 level course not used in the minor 3

**Music**

Select one of the following: 3

M H L T 4000 Directed Studies

THRY COM 4 Directed Studies: Variable Topic

PDGOGY 400 Directed Study: Variable Topic

PRACTM 400 Directed Studies: Variable Topic

**Philosophy**

One additional 4000 level course not used in the minor 3

**Physics**

PHYSICS 4381 Directed Readings In Physics 3

**Political Science**

POL SCI 3950 Senior Seminar In Political Science 3

**Psychology**

One additional 4000 level Psychology course not used in the minor 3

**Sociology**

One additional 4000 level course in Sociology not used in the minor, excluding: 3

SOC 4350 Special Study

or SOC 4385 Internship In Sociology

<sup>1</sup> Student must identify themselves as using the additional 4000 level course as a Capstone so additional requirements can be assigned.

<sup>2</sup> Must be admitted to Honors program.

**Bachelor of Interdisciplinary Studies (BIS)**

The Bachelor of Interdisciplinary Studies degree (B.I.S.) provides a flexible, individualized program of study for the self-directed learner. It is developed by each student with advisement by UMSL professional advisers and faculty, and it is intended for students who have unique educational goals that cannot be met by any other UMSL degree program.

Oversight of the B.I.S. degree is the responsibility of the Interdisciplinary Studies Committee, composed of faculty and professional staff, including representatives from Arts and Sciences (Humanities, Social Sciences, and Natural Sciences), Business, Education, Fine Arts and Communication, Nursing or other divisions. The Interdisciplinary Studies Committee will be convened and supported by the Office of the Provost.

**Admission Requirements for the B.I.S. Program**

Candidates for the B.I.S. degree must complete an application for admission to the program. The Interdisciplinary Studies Committee approves applications.

Approved programs of study are well-designed, coherent, structured to meet the student's unique educational goals, and not readily available under any other UMSL degree program.

Students must have demonstrated the equivalent of academic proficiency required for any other undergraduate degree at UMSL.

**Degree Requirements for the B.I.S. Program****General Education Requirements**

Students must complete the university's general education requirements. For details refer to the general education requirements (<http://bulletin.umsml.edu/generaleducationrequirements>) section of this Bulletin.

**Area of Study**

In consultation with faculty and staff advisers, students will carry out an area of study of at least 36 advanced semester hours of graded credit that meets their educational goals. Graded credit consists of degree credit courses in which the student received a letter grade of A, A-, B+, B, B-, C+, C, C-. The area of study must include at least nine hours at the 3000-level or above; these courses may be in one or more disciplines.

## Hour and Grade Requirements

The degree requires completion of 120 semester hours with a 2.0 campus grade point average overall and in the area of study. No more than 15 hours may be taken in one department. At least 45 hours must be earned in courses beyond the introductory level. A minimum of 24 hours of graded credit must be completed in residence at UMSL, of which 15 hours must be in the area of study and completed after admission to the B.I.S. program. Each candidate must be in residence for 24 of the last 30 hours of graded credit (exclusive of courses taken on a satisfactory/unsatisfactory basis).

## Supervised Professional or Service Internship and Independent Research

Credit not exceeding 6 hours may be earned for department-approved professional internship, service internship, or independent research. The projects or activities must be formulated by the student and carried out under the supervision of a faculty member with the approval of the adviser. Students must submit a written report approved by the supervisor upon completion of the projects or activities.

## Interdisciplinary Certificates

### Undergraduate Certificate in Child Advocacy Studies

(pending CBHE approval)

The undergraduate Certificate Program in Child Advocacy Studies (CAST) is an interdisciplinary program requiring 18 credits of training in Child Advocacy Studies. The CAST certificate encompasses a group of courses focused on children, youth, and traumatic stress capped by a field experience. The CAST certificate is appropriate for students who want to specialize in working in a variety of professional settings with children and adolescents, many of whom may have experienced trauma.

Most courses required by the Certificate Program in Child Advocacy Studies have prerequisites. Some students may satisfy prerequisites by virtue of their prior curriculum. When this is not the case, students are responsible for satisfying the prerequisites. All students must take at least one course outside their home department. All required courses must be taken in residence at UM-St. Louis.

#### Required courses

PSYCH/SOC WK/CAST 4398	Child Maltreatment: A Multidisciplinary Approach <sup>1</sup>	3
CAST 4498	Forensic Investigation of Child Abuse	3
CAST 4598	Child Abuse Assessment and Intervention	3

#### Electives 6

Please choose two of the following:

CNS ED 4310	Human Relations Skills
CRIMIN 2226/ POL SCI 2260	Law, Politics and Society
CRIMIN 2251	Youth Gangs
CRIMIN 3230	Crime Prevention
CRIMIN 3270	Juvenile Justice And Delinquency
CRIMIN/GS 4330	Violence Against Women
CRIMIN 4350	Victimology
ECH ED 3350	Child/Family and Education and Community Involvement

ED PSY 3312	Psychology of Learning, Instruction, and Assessment
GS 2102	Introduction To Gender Studies
GS/SOC 2224	Marriage And The Family
GS/SOC 3250	Sociology Of Victimization
GS/SOC WK 4610	Intimate Partner Violence
PSYCH 2200	Drugs And Behavior
PSYCH/GS 2232	Psychology Of Trauma
PSYCH 2270	Developmental Psychology: Infancy, Childhood And Adolescence
PSYCH/CAST 3290	Traumatic Stress in Childhood and Adolescence <sup>1</sup>
PSYCH 3340	Clinical Problems Of Childhood
PSYCH 4305	Developmental Psychology: Cognitive Development of Children
SOC 2201	Deviance and Society
SOC 4312	Sociology Of Wealth And Poverty
SOC 4356	Sociology Of Education
SOC WK 4110	Social Work Practice with Individuals, Families, and Groups
SOC WK 4601	Abused And Neglected Children
SOC WK 4620	Addictions: Assessment And Intervention In Social Work Practice
SOC WK 4645	Social Work in Mental Health

#### Field Experience Options 3

A field experience in a child-related field, approved and supervised by the student's home department, is the final part of the certificate. All required CAST courses should be completed, though concurrent enrollment in one CAST course is permitted. Additionally, students must receive prior approval from the CAST program director. Simultaneous participation in a CAST didactic series is required for all disciplines and will count toward internship hours, per approval of the student's departmental supervisor.

CRIMIN 3280	Internship In Criminology And Criminal Justice
EDUC 4990	Internship II
GS 4353	Internship In Gender Studies
CAST 4598	Child Abuse Assessment and Intervention
SOC 4307	Community-Based Research in Sociology
SOC WK 4800/4850	Supervised Field Experience In Social Work I

Total Hours 18

## Evolutionary Studies Certificate

The undergraduate certificate program in evolutionary studies is designed to provide a unifying perspective on the diverse subject areas of a liberal arts education. Evolutionary biology provides a link between the sciences, the social sciences, and the humanities. The core of the program is BIOL 1999 (p. 169), "Evolution for Everyone," a course on evolution for students who are not majors in biology. (Biology majors who participate in the EvoS program must take BIOL 3302 (p. 169) instead.) In this course, students are introduced to the history of evolutionary thinking, the basic mechanisms of evolution, and the evolution of complex behaviors. In addition to this one required course, to obtain a certificate students must fulfill twenty credits from the list of courses designated below.

No more than eight hours can be taken at the freshman level, and at least eight hours must be taken at the junior-senior level (3000 level or above).

Courses taken for the certificate in the lower division can satisfy general education requirements (that is, breadth requirements). Courses in the upper division can satisfy requirements for the student's major.

### Courses in the Physical and Life Sciences

Physics and Astronomy		
ASTRON 1011 (p. 169)	Planets And Life In The Universe	3
Biology		
BIOL 1202 (p. 169)	Environmental Biology	3
BIOL 1821 (p. 169)	Introductory Biology: Organisms And The Environment	5
BIOL 1999 (p. 169)	Evolution for Everyone (Required Core Course) <sup>1</sup>	3
BIOL 2102 (p. 169)	General Ecology	3
BIOL 2012 (p. 169)	Genetics	3
BIOL 2402 (p. 169)	Vertebrate Anatomy, Evolution and Ecology	3
BIOL 2501 (p. 169)	Biology Of Plants	5
BIOL 3102 (p. 169)	Animal Behavior	3
BIOL 3302 (p. 169)	Introduction To Evolution	3
BIOL 4102 (p. 169)	Behavioral Ecology	3
BIOL 4112 (p. 169)	Evolution Of Animal Sociality	3
BIOL 4182 (p. 169)	Population Biology	3
BIOL 4422 (p. 169)	Entomology	3
BIOL 4442 (p. 169)	Developmental Biology	3
BIOL 4501 (p. 169)	Flowering Plant Families: Phylogeny And Diversification	5

### Courses in the Social Sciences

Anthropology		
ANTHRO 1005 (p. 169)	Introduction To Biological Anthropology	4
ANTHRO 2105 (p. 169)	Human Variation	3
Psychology		
PSYCH 1003 (p. 169)	General Psychology	3
PSYCH 2200 (p. 169)	Drugs And Behavior	3
PSYCH 2205 (p. 169)	Human Sexuality: Psychological Perspectives	3
PSYCH 2211 (p. 169)	Introduction To Biological Psychology	3

PSYCH 3205 (p. 169)	Evolutionary Psychology	3
PSYCH 3390 (p. 169)	Directed Studies	1-6
PSYCH 3500 (p. 169)	Health Psychology	3
PSYCH 4300 (p. 169)	Introduction To Psychopharmacology: Drugs And Mental Illness	3
PSYCH 4311 (p. 169)	Psychology Of Nonverbal Behavior	3
PSYCH 4330 (p. 169)	Hormones, The Brain And Behavior	3
PSYCH 4349 (p. 169)	Human Learning And Memory	3
PSYCH 4356 (p. 169)	Cognitive Processes	3
PSYCH 3400 (p. 169)	Conceptual and Historical Foundations of Psychology	3
PSYCH 4374 (p. 169)	Introduction To Clinical Neuropsychology	3

### Courses in the Humanities

English		
ENGL 4030 (p. 169)	Contemporary Critical Theory	3
ENGL 4080 (p. 169)	Narrative, Cognition, And Emotion	3
Philosophy		
PHIL 2280 (p. 169)	Minds, Brains, And Machines	3
PHIL 2281 (p. 169)	Darwinism and the Philosophy of Biology	3

### Honors College Courses

See Honors College Courses below

<sup>1</sup> Biology majors who participate in the EvoS program must take BIOL 3302 (p. 169) instead.

### Honors College Courses

The Honors College will offer seminars as part of the Evolutionary Studies certificate or minor, and they will be identified as such before the opening of registration periods. EvoS seminars in honors will be open to non-Honors College students with at least a 3.0 GPA (students must obtain permission numbers from the Honors College). Please note that all honors college course numbers (e.g. ) relate to generic course titles (e.g. "Inquiries in the Humanities"), and so it is very important to register for the section number with the proper Evolutionary Studies seminar title. Where these honors college courses are cross-listed (e.g. with English xxxx or Philosophy yyyy), non-honors college students should take them under their departmental number.

### History and Philosophy of Science and Technology Certificate

The undergraduate Certificate Program in History and Philosophy of Science and Technology (HPST) is an interdisciplinary program requiring a minimum of 18 credits in HPST.

All required courses must be completed with a "C-" or higher. The satisfactory/unsatisfactory option may not be used towards the HPST

Certificate. A minimum of 12 hours must be taken at 2000 and above with 9 of those hours being at 3000 or above. Courses in the upper division (3000 level and above) may satisfy requirements for the student's major, consistently with the major's requirements.

## Requirements

### 1. History:

Select two of the following courses in History and Technology: 6

ECON 3800	History Of Economic Thought	
HIST 2089	Religion, Philosophy & Science in History: Introduction to The Intellectual History Of The West	
HIST 2770	Introduction To Transportation	
HIST 2772	History Of Aviation In American Life	
HIST 2773	Urbanization And Transportation	
HIST 4143	Inquiries in World History <sup>1</sup>	
PHIL 4483	Topics In History And Philosophy Of Science	
PSYCH 3400	Conceptual and Historical Foundations of Psychology	

Total Hours 6

### 2. Philosophy:

PHIL 3380 Philosophy Of Science 3

Select one of the following in the philosophy of science: 3

PHIL 2280	Minds, Brains, And Machines	
PHIL 2281	Darwinism and the Philosophy of Biology	
PHIL 2282	Philosophy of Science in Historical Perspective	
PHIL 3380	Philosophy Of Science	
PHIL 4452	Feminism And Science	
PHIL 4479	Philosophy Of Cognitive Science	
PHIL 4480	Topics In Philosophy Of Science	
PHIL 4482	Philosophy Of Social Science	
PHIL 4483	Topics In History And Philosophy Of Science	
PSYCH 3400	Conceptual and Historical Foundations of Psychology	

Total Hours 6

3. Science: Two courses in the mathematical, physical, life, behavioral, or social sciences. The science courses must be in addition to those satisfying the Gen Ed requirements (for students pursuing a degree at UM St. Louis) and conditional upon their acceptance by the HPST Certificate Undergraduate advisor (6 credit hours).

<sup>1</sup> Note: HIST 4143 is offered under different topics; only the specific topic listed here counts as HPST.

## Prerequisites

Some courses required by the Certificate Program in HPST have prerequisites. Some students may satisfy prerequisites by virtue of their prior curriculum. When this is not the case, students are responsible for either satisfying the prerequisites by adding courses to their curriculum or obtaining a waiver from the instructor.

Alternative courses to satisfy the History and Philosophy requirements:

Some courses may satisfy either the History or the Philosophy requirement even though they are not listed as such, depending on what

their content is. These include but are not listed among those satisfying the requirements, you may do the following:

- Obtain the description of what the course will cover.
- Write a very short explanation of why the course ought to count toward satisfaction of the requirement, by showing how it deals with the relevant aspect of HPST.

Submit both to the HPST undergraduate advisor for approval.

## Labor Studies Certificate

The Labor Studies Certificate is designed for students who are interested in a focused specialty in labor studies. The 18 credit hour curriculum consists of six credit courses offered over a three-semester period.

HIST 2219 (p. 169)	United States Labor History	3
ECON 3450 (p. 169)	Labor in the Global Political Economy	3
POL SCI 1450 (p. 169)	Introduction To Labor Studies	3
POL SCI 3220 (p. 169)	Labor Law	3
POL SCI 3430 (p. 169)	Union Leadership And Administration	3
Total Hours		15

## Certificate in Neuroscience

The undergraduate Certificate Program in Neuroscience is an interdisciplinary program requiring 20 credits of training in Neuroscience. The Program provides a group of related courses capped by a research experience. The Program is likely to be of particular interest to students who want to pursue graduate or professional training, but it is intended to appeal to any student interested in Neuroscience.

Courses taken for the certificate in the lower division (1000 and 2000 level) may satisfy general education requirements (that is, breadth requirements), if they are approved general education courses. Courses in the upper division (3000 level and above) may satisfy requirements for the student's major, consistently with the major's requirements. All required courses must be completed with a "B-" average or higher. Pass/Fail grades do not count.

Most courses required by the Certificate Program in Neuroscience have prerequisites. Some students may satisfy prerequisites by virtue of their prior curriculum. When this is not the case, students are responsible for satisfying the prerequisites.

## Requirements

### The two entry level courses:

BIOL 1831	Introductory Biology: From Molecules To Organisms <sup>1</sup>	5
or BIOL 1012	General Biology	
or BIOL 1102	Human Biology	
PSYCH 2211	Introduction To Biological Psychology	3
Select one of the following statistics courses:		3
BIOL 4122	Biometry	
MATH 1320	Applied Statistics I	
PSYCH 2201	Psychological Statistics	



SOC 3220	Social Statistics	
<b>Electives</b>		
Select two of the following: <sup>2</sup>		6
BIOL 3102	Animal Behavior	
BIOL 4822	Introduction To Neuroscience	
CHEM 4712	Biochemistry	
CMP SCI 4300	Introduction To Artificial Intelligence	
CMP SCI 4340	Introduction to Machine Learning	
PHIL 2280	Minds, Brains, And Machines	
PHIL 3378	Philosophy of Mind	
PHIL 4478	Topics In Philosophy Of Mind	
PHIL 4479	Philosophy Of Cognitive Science	
PHYSICS 4347	Biophysics Of Imaging	
PSYCH 4300	Introduction To Psychopharmacology: Drugs And Mental Illness	
PSYCH 4314	Behavioral Neuroscience	
PSYCH 4330	Hormones, The Brain And Behavior	
PSYCH 4349	Human Learning And Memory	
PSYCH 4356	Cognitive Processes	
PSYCH 4372	Introduction to Social Neuroscience	
Select at least 3 credits from one or more semesters of research experience <sup>3</sup>		3
BIOL 4905	Research	
CHEM 3905	Chemical Research	
CMP SCI 4880	Individual Studies	
PHIL 4450	Special Readings In Philosophy	
PHYSICS 3390	Research	
PSYCH 3390	Directed Studies	
Total Hours		20

<sup>1</sup> BIOL 1831 is strongly recommended, especially for those considering taking BIOL 4822 Introduction to Neurosciences towards their Neuroscience Certificate (BIOL 1831 is a prerequisite for BIOL 4822)"

<sup>2</sup> At least one elective must be taken outside the student's major

<sup>3</sup> This requires completion of a Directed Research Assistantship with a Neuroscience faculty member within any of the participating departments. The research project must be approved in advance by the undergraduate advisor with the assistance of a committee of Neuroscience faculty. It is expected that this research will lead to a presentation of the research (e.g., at the UM-St. Louis Neuroscience seminar or the Undergraduate Research Symposium).

## Studies in Religions Certificate

A certificate in studies in religions requires the completion of 18 hours with a grade of C or better.

Courses must be chosen from two or more departments (interdisciplinary offerings excluded), and the program must include two or more courses that focus on different major religious traditions. (Courses that fulfill this requirement are marked with an asterisk [\*] in the list below.)

In addition, students are encouraged to broaden their understanding of religions and religious experience by enrolling in several courses in which these subjects are studied in philosophical or cultural contexts.

Students must obtain the approval of the coordinator of studies in religions before completing 12 hours toward this certificate.

## Requirements

Select 6 of the following list in accordance with the guidelines above: 18

### Anthropology

ANTHRO 2173 Archaeology And Cultures Of The Biblical World (p. 169)

### Art

ART HS 2225 Medieval Art (p. 169)

### English

ENGL 2240 (p. Literature Of The Old Testament<sup>1</sup> 169)

ENGL 2250 (p. Literature Of The New Testament<sup>1</sup> 169)

ENGL 4950 (p. Special Topics In Literature<sup>1</sup> 169)

### Philosophy

PHIL 1120 (p. Asian Philosophy 169)

PHIL 1185 (p. Philosophy Of Religion 169)

PHIL 3302 (p. Medieval Philosophy 169)

### Political Science

POL SCI 2610 Ancient And Medieval Political Thought (p. 169)

POL SCI 2650 American Political Thought (p. 169)

Total Hours 18

<sup>1</sup> Note: ENGL 4950 (p. 169) should only be taken when Religious Literature is the topic.

## Trauma Studies Certificate

The trauma studies certificate is designed for students who are interested in a focused specialty in trauma studies or victim services in addition to their own major. It is appropriate for students in the College of Arts and Sciences or any of the schools of the university. It is particularly appropriate for students wishing to pursue careers in psychology, social work, sociology, criminology, law, public health, or nursing.

### Requirements

A student may earn a trauma studies certificate by completing 18 hours with a GPA of 2.0 or better from at least three departments from the following courses:

Select at least three of the following: 12

### Criminology and Criminal Justice

CRIMIN 1120 Criminal Law (p. 169)

CRIMIN 4300 Communities And Crime (p. 169)

CRIMIN 4350 Victimology (p. 169)

### Psychology

PSYCH 2232 Psychology Of Trauma  
(p. 169)

PSYCH 3390 Directed Studies (for three credits only toward  
(p. 169) certificate) <sup>1</sup>

#### **Social Work**

SOC WK 3100 Introduction To Strategies for Social Work Practice  
(p. 169)

SOC WK 4601 Abused And Neglected Children  
(p. 169)

SOC WK 4602 Child Welfare Practicum Seminar  
(p. 169)

#### **Sociology**

SOC 3250 (p. Sociology Of Victimization  
169)

Select up to two of the following: 6

#### **Criminology and Criminal Justice**

CRIMIN 3230 Crime Prevention  
(p. 169)

CRIMIN 2240 Policing  
(p. 169)

CRIMIN/  
SOC 4340 (p. Race, Crime, And Justice  
169)

#### **Political Science**

POL SCI 2400 Public Administration  
(p. 169)

POL SCI 2420 Introduction To Public Policy  
(p. 169)

#### **Psychology**

PSYCH/  
SOC 2160 (p. Social Psychology  
169)

PSYCH 2230 Psychology Of Gender  
(p. 169)

PSYCH 2245 Abnormal Psychology  
(p. 169)

#### **Social Work**

SOC WK 4630 Gender Issues in Social Work  
(p. 169)

#### **Sociology**

SOC 2102 (p. Introduction To Gender Studies  
169)

SOC/PSYCH Social Psychology  
2160 (p.  
169)

SOC 3268 (p. The Sociology Of Conflict  
169)

SOC/CRIMIN Race, Crime, And Justice  
4340 (p.  
169)

Total Hours 18

<sup>1</sup> Please seek approval of the Coordinator of the Trauma Studies Certificate in advance.

Special Topics courses relevant to trauma studies may be included in the certificate when approved in advance by the coordinator of the trauma studies certificate.

## **Interdisciplinary Minors**

### **Minor in American Studies**

American Studies is an internationally recognized academic field that involves an interdisciplinary approach to the study of the culture(s) of the United States, its colonial antecedents, and its indigenous peoples.

Students interested in this minor should contact the coordinator of American Studies for advice and information.

Candidates must have a cumulative grade point average of 2.0 or better in the 18 credit hours required for the minor. Three hours of the minor may be taken on a satisfactory/unsatisfactory basis. Candidates wishing to take American Studies courses from the Honors College (see below) must be members of the Honors College or must have a 3.0 cumulative grade point average.

### **Requirements for the Minor**

Completion of the American Studies minor requires at least 18 semester credit hours, including at least two courses (six hours) from Section A and at least two courses (six hours) from Section B. The other six hours may be chosen from Section A, B, and/or C. Please read the special requirements below.

1. Core courses in American Studies (all courses are three credits except where otherwise indicated).

At least two of the following core courses are required to qualify for the minor. Of this minimal requirement, one course must be chosen from either American Studies or English and the other from either History or Political Science. Students may take up to two additional courses from this group, and these may be chosen from any department or discipline.

Select at least two of the following: 6

#### **Anthropology**

ANTHRO 2120 Native Peoples Of North America

#### **Art and Art History**

ART HS 1104 Indigenous Arts Of North America

ART HS 2270 American Art To 1876

ART HS 2279 American Architecture

#### **English**

ENGL 1170 American Literary Masterpieces

ENGL 1710 Native American Literature

ENGL 2710 American Literature Before 1865

ENGL 2720 American Literature After 1865

#### **History**

HIST 1001 American Civilization To 1865

HIST 1002 American Civilization 1865 To Present

HIST 1003 African-American History

HIST 1004 The History Of Women In The United States

#### **Honors <sup>1</sup>**

HONORS 1230 American Traditions: Social And Behavioral  
Sciences

HONORS 1310 Non-Western Traditions Series Humanities

HONORS 1330 Non-Western Traditions Series-Social Sciences

**Music**

M H L T 1060 Introduction To African-American Music

M H L T 1070 Introduction To Jazz

**Philosophy**

PHIL 3307 American Philosophy

**Political Science**

POL SCI 110C Introduction To American Politics

POL SCI 2300 State Politics

POL SCI 235C Introduction To Urban Politics

POL SCI 2650 American Political Thought

POL SCI 290C Studies In Political Science (when appropriate)

Total Hours 6

2. Optional courses in American Studies (all courses are 3 credits except where otherwise indicated).

To complete the American Studies minor, students must choose at least two courses from this group, from any department or discipline, and may choose up to four courses in this group. Courses chosen from this group must be chosen from at least two departments.

Select at least two of the following: 6

**Anthropology**

ANTHRO 329 Current Issues In Anthropology (when appropriate)

**Art and Art History**

ART HS 3360 Photography And Society

ART HS 4475 Topics In American Art

ART HS 4481 Topics In Contemporary Art (when appropriate)

**Communication**

COMM 1050 Introduction To Mass Communication

COMM 2243 Communication In American Politics<sup>3</sup>

COMM 3352 Mass Media in Society

**Economics**

ECON/HIST History Of American Economic Development 2800

**English**

ENGL 3800 Topics In Women And Literature (when appropriate)

ENGL 4610 Selected Major American Writers I

ENGL 4620 Selected Major American Writers II

ENGL 4640 American Fiction To World War I

ENGL 4650 Modern American Fiction

ENGL/GS Studies In Gender And Literature (when appropriate) 4930

ENGL 4950 Special Topics In Literature (when appropriate)

**History**

HIST 2012 The Indian In American History

HIST 2016 African-American History: From Slavery to Civil Rights

HIST 2017 African-American History: From Civil Rights To Black Power

HIST/CRIMIN History Of Crime And Justice 3043

HIST 2219 United States Labor History

HIST/ECON History Of American Economic Development 2800

HIST 3000 Selected Topics In History (when appropriate)

HIST/GS History Of Women In The United States 3031

HIST 4999 Senior Seminar (5 credits: when appropriate)

SEC ED 4013 United States History For The Secondary Classroom

**Honors College<sup>2</sup>**

HONORS 201 Inquiries In The Humanities

HONORS 202 Inquiries In The Fine And Performing Arts

HONORS 203 Inquiries In The Social And Behavioral Sciences

HONORS 207 Inquiries In Education

HONORS 301 Advanced Honors Seminar In The Humanities

HONORS 302 Advanced Honors Seminar In The Fine And Performing Arts

HONORS 303 Advanced Honors Seminar In The Social And Behavioral Sciences

HONORS Advanced Honors Seminar in Education<sup>3</sup> 3070

HONORS Research Seminar In The Social And Behavioral Sciences 3530

**Philosophy**

PHIL 4410 Topics and Figures in the History of Philosophy (when appropriate)

**Political Science**

POL SCI 228C Judicial Politics And Policy

POL SCI 2320 African Americans And The Political System

POL SCI/GS The Politics of Gender in the United States 2380

POL SCI 3200 Constitutional Law

POL SCI 321C Civil Liberties

POL SCI 3300 The American Presidency

POL SCI 3331 Congressional Politics

POL SCI 3340 Politics And The Media

POL SCI 335C Political Parties And Elections

POL SCI 3390 Studies In American Politics (when appropriate)

**Sociology**

SOC 1040 Social Problems

SOC 2316 Power, Ideology And Social Movements

SOC 3268 The Sociology Of Conflict

SOC/GS Sociology Of Minority Groups 4360

SOC 4380 Advanced Topics in Sociology (when appropriate)

3. American Studies elective courses (courses are three credit hours unless otherwise indicated).

Up to two courses from this group may be used for the American Studies minor. When two courses are chosen from this group, they must be chosen from different departments.

Select up to two of the following: 6

**Anthropology**

ANTHRO 2126 Archaeology Of Greater St Louis

ANTHRO 213 Archaeology Of Missouri  
 ANTHRO 213Z Archaeology Of North America

**Art and Art History**

ART HS 2281 Art Since 1960

**Communication**

COMM 3332 Intercultural Communication

**Criminology and Criminal Justice**

CRIMIN 2240 Policing

CRIMIN/SOC Race, Crime, And Justice  
 4340

**English**

ENGL 4060 Adolescent Literature

ENGL 4740 Poetry Since World War II

ENGL 4760 Modern Drama

ENGL 4770 Modern Poetry

**History**

HIST 2001 Creating Early America: European Empires,  
 Colonial Cultures, and Native Nations,  
 1565-1776

HIST 2003 United States History: From Nation to Civil War

HIST 2004 United States History: The Civil War Era,  
 1860-1900

HIST 2005 The Modernization Of The United States

HIST 2006 Recent United States History

HIST 2024 US Foreign Relations and Military History Since  
 1900

HIST 3031 History Of Women In The United States

HIST 3041 Topics In American Constitutional History

**Media Studies**

MEDIA ST 33:Media Law And Regulation

**Political Science**

POL SCI 229C Gender And The Law

POL SCI 2420 Introduction To Public Policy

POL SCI 282C United States Foreign Policy

POL SCI 3330 Public Opinion and Political Participation

POL SCI 346C The Politics Of Poverty And Welfare

**Social Work**

SOC WK 220C Social Welfare As A Social Institution

SOC WK 3210 Social Issues And Social Policy Development

**Sociology**

SOC 1040 Social Problems

SOC 2180 Alcohol, Drugs And Society

SOC 2202 Urban Sociology

- 2 When topics are appropriate, any of the seminars below can qualify as an "option" course for the American Studies minor. Admission to these courses requires the consent of the dean of the Honors College.
- 3 The course will not be offered in 2014-2015. Please contact the department for more information.

In addition, courses with variable topics such as Topics in..., Studies in..., and seminars may be taken when the topics are appropriate. When in doubt, see the coordinator of American Studies; such courses must be approved for inclusion in your American Studies minor before the semester registration deadline.

**Minor in Child Advocacy Studies**

The undergraduate minor in Child Advocacy Studies (CAST) is an interdisciplinary program requiring 15 credits of training in Child Advocacy Studies. The CAST minor encompasses a group of courses focused on children, youth, and traumatic stress. The CAST minor is appropriate for students who want to explore working in a variety of professional settings with children and adolescents, many of whom may have experienced trauma.

Most courses required by the minor in Child Advocacy Studies have prerequisites. Some students may satisfy prerequisites by virtue of their prior curriculum. When this is not the case, students are responsible for satisfying the prerequisites. All required courses must be taken in residence at UM-St. Louis.

**Required courses:**

PSYCH/CAST 3290	Traumatic Stress in Childhood and Adolescence <sup>1</sup>	3
PSYCH/SOC WK/CAST 4398	Child Maltreatment: A Multidisciplinary Approach <sup>1</sup>	3
CAST 4498 or CAST 4598	Forensic Investigation of Child Abuse Child Abuse Assessment and Intervention	3

**Electives**

6

**Please choose two of the following:**

CAST 4498	Forensic Investigation of Child Abuse (if course not used above)
CAST 4598	Child Abuse Assessment and Intervention (if course not used above)
CRIMIN 2226/ POL SCI 2260	Law, Politics and Society
CRIMIN 2251	Youth Gangs
CRIMIN 3230	Crime Prevention
CRIMIN 3270	Juvenile Justice And Delinquency
CRIMIN/GS 4330	Violence Against Women
CRIMIN 4350	Victimology
CNS ED 4310	Human Relations Skills
ED PSY 3312	Psychology of Learning, Instruction, and Assessment
ECH ED 3350	Child/Family and Education and Community Involvement
GS 2102	Introduction To Gender Studies
GS/SOC 2224	Marriage And The Family
GS/SOC 3250	Sociology Of Victimization
GS/SOC WK 4610	Domestic Violence: Theory, Problems, And Practice

<sup>1</sup> Admission to these Honors Seminars requires consent of the dean of the Honors College: note that depending on instructor and content, HONORS 1210 can fulfill the requirements from this group in literature/American Studies and HONORS 1230 can fulfill the History/Political Science requirement. HONORS 1310- HONORS 1330 can qualify as additional Group A choices when their focus is on Native American traditions. Please note that HONORS 1210 will not be offered in 2013-2014. Please contact the department for more information.



PSYCH 2200	Drugs And Behavior	
PSYCH/GS 2232	Psychology Of Trauma	
PSYCH 2270	Developmental Psychology: Infancy, Childhood And Adolescence	
PSYCH 3340	Clinical Problems Of Childhood	
PSYCH 4305	Developmental Psychology: Cognitive Development of Children	
SOC 2201	Deviance and Society	
SOC 4312	Sociology Of Wealth And Poverty	
SOC 4356	Sociology Of Education	
SOC WK 4110	Social Work Practice with Individuals, Families, and Groups	
SOC WK 4601	Abused And Neglected Children	
SOC WK 4620	Addictions: Assessment And Intervention In Social Work Practice	
SOC WK 4645	Social Work in Mental Health	
Total Hours		15

<sup>1</sup> Course pending faculty senate approval

## Minor in Classical Studies

The minor in Classical Studies is an interdisciplinary course of studies intended to encourage undergraduates in various disciplines to come to a fuller awareness of the cultures of ancient Greece and Rome and of the classical tradition that underlies much of modern Western civilization. In addition to appealing to any student's curiosity about the early stages of society in the West, the minor provides an especially valuable supplement to those who are majoring in many liberal arts areas including history, literature, philosophy, foreign languages, and art.

Students pursuing the minor will acquire a foundation in either Greek or Latin. They may choose to use either sequence to fulfill the foreign language requirement in the College of Arts and Sciences.

## Requirements

Candidates for the minor must complete 19 credit hours of course work including:

LATIN 1001 (p. 169) & LATIN 1002 (p. 169)	Latin I and Latin II	10
or GRK ANC 1001 (p. 169) & GRK ANC 1002 (p. 169)	Ancient Greek I and Ancient Greek II	
Select three of the following:		9
ART HS 2211 (p. 169)	Art And Archaeology Of The Ancient World	
ART HS 2212 (p. 169)	Greek Art And Archaeology	
ART HS 2213 (p. 169)	Roman Art & Archaeology	
ART HS 4411 (p. 169)	Topics In Ancient Art And Archaeology	
GRK ANC 2101 (p. 169)	Intermediate Ancient Greek Language And Culture	3

HIST 2081 (p. 169)	Rome: The Republic And Empire	
LATIN 2101 (p. 169)	Intermediate Latin Language And Culture	
PHIL 3301 (p. 169)	Ancient Philosophy	
PHIL 4401 (p. 169)	Plato	
PHIL 4402 (p. 169)	Aristotle	
Any other course approved by the coordinator		
Total Hours		22

## Minor in Environmental Studies

This is an interdisciplinary program that integrates the natural and physical sciences with the social sciences and humanities to study current environmental problems resulting from human population growth, global climate change, overuse of natural resources, pollution and biodiversity loss. A minimum 18 hours are required, 9 of which must be in the natural and physical sciences, including the listed Honors College courses, and 9 must be from the social sciences and humanities. Environmental Politics must be completed as part of the total 18 hours. A total of 12 hours must be taken at or above the 2000 level, and one course at or above the 3000 level. At least 9 hours must be taken while in residence at UMSL. A minimum GPA of 2.0 is required.

### Natural and Physical Sciences

Select three of the following:		9
BIOL 1202 (p. 169)	Environmental Biology	
BIOL 1821 (p. 169)	Introductory Biology: Organisms And The Environment	
BIOL 2102 (p. 169)	General Ecology	
BIOL 3103 (p. 169)	Animal Behavior Laboratory	
BIOL 2501 (p. 169)	Biology Of Plants	
BIOL 3202 (p. 169)	Conservation Biology	
BIOL 3203 (p. 169)	Conservation Biology Laboratory	
BIOL 3302 (p. 169)	Introduction To Evolution	
BIOL 4102 (p. 169)	Behavioral Ecology	
BIOL 4192 (p. 169)	Applications of Geographic Information Systems	
BIOL 4222 (p. 169)	Tropical Ecology And Conservation	
BIOL 4245 (p. 169)	Field Biology	
BIOL 4270 (p. 169)	Global Climate Change	
BIOL 4402 (p. 169)	Ornithology	

BIOL 4422 (p. 169)	Entomology	
BIOL 4501 (p. 169)	Flowering Plant Families: Phylogeny And Diversification	
GEOL 1002 (p. 169)	Historical Geology	
HONORS 2050 (p. 169)	Inquiries In The Natural Sciences (when topic appropriate)	
HONORS 2051 (p. 169)	Inquiries in the Sciences: Laboratory or Field Work (when topic appropriate)	
<b>Social Sciences and Humanities</b>		
Select three of the following:		9
ANTHRO 1005 (p. 169)	Introduction To Biological Anthropology	
ANTHRO 3270 (p. 169)	Human Ecology, Cultural Collapse, and Sustainable Developments	
ECON 4160 (p. 169)	Geospatial Analysis In The Social Sciences	
ECON 4170 (p. 169)	Fundamentals Of Cost-Benefit Analysis	
ECON 4550 (p. 169)	Natural Resource Economics	
INTL BUS 4281 (p. 169)	Entrepreneurship in the Global Environment	
PHIL 2255 (p. 169)	Environmental Ethics	
POL SCI 3480 (p. 169)	Environmental Politics	
POL SCI 3595 (p. 169)	Studies In Comparative Politics (when topic appropriate)	
POL SCI 3850 (p. 169)	International Organizations And Global Problem-Solving (when topic appropriate)	
POL SCI 3900 (p. 169)	Special Readings (when topic appropriate)	
POL SCI 4460 (p. 169)	Urban Planning And Politics	
Total Hours		18

## Minor in Legal Studies

The minor in Legal Studies is open to all undergraduate students at UMSL, whatever their major field. It offers a secondary field of concentration in one of the most important areas of social life. Students may use the minor as a complement to their major, as an additional qualification for career opportunities, or as general education.

This interdisciplinary minor coordinates liberal arts courses related to law. A faculty member in Legal Studies will advise students and will work with their major advisers in planning appropriate courses.

Candidates must take:

POL SCI/CRIMIN 1200 (p. 169)	Foundations Of Law: An Introduction To Legal Studies	3
Select five of the following: <sup>1</sup>		15
BUS AD 1900 (p. 169)	Introduction to Personal Law	

BUS AD 2900 (p. 169)	Legal Environment Of Business	
BUS AD 3900 (p. 169)	Business Law: Contracts, Sales, Secured Transactions, Bankruptcy	
BUS AD 3901 (p. 169)	Business Law:Negotiable Instruments, Business Organ., Property	
INTL BUS 3280 (p. 169)	The Law Of International Business Transactions	
CRIMIN 1100 (p. 169)	Introduction To Criminology And Criminal Justice	
CRIMIN 1120 (p. 169)	Criminal Law	
CRIMIN 2130 (p. 169)	Criminal Justice Policy	
CRIMIN 2250 (p. 169)	Courts	
CRIMIN 3345 (p. 169)	Rights Of The Offender	
CRIMIN 4300 (p. 169)	Communities And Crime	
ECON 3650 (p. 169)	Law And Economics	
HIST 3041 (p. 169)	Topics In American Constitutional History	
HIST 2085 (p. 169)	Medieval England: From Arthur to Richard III	
MEDIA ST 3355 (p. 169)	Media Law And Regulation	
PHIL 4487 (p. 169)	Topics In Philosophy Of Law	
POL SCI 2260 (p. 169)	Law, Politics and Society	
POL SCI 2280 (p. 169)	Judicial Politics And Policy	
POL SCI 2290 (p. 169)	Gender And The Law	
POL SCI 3200 (p. 169)	Constitutional Law	
POL SCI 3210 (p. 169)	Civil Liberties	
POL SCI 3260 (p. 169)	The Supreme Court	
POL SCI 4850 (p. 169)	International Law	
Total Hours		18

<sup>1</sup> At least three courses must be taken at the 3000 level and above. No more than two courses from a single discipline may be included in the minor.

## Minor in Public Affairs Journalism Requirements

- Nine hours in communication/English professional training:
 

ENGL 3140 (p. 169)	News Writing	3
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or MEDIA ST 321 News Writing (p. 169)	
ENGL 3180 (p. Reporting 169)	3
or MEDIA ST 22 Broadcast Writing And Reporting (p. 169)	
Select one of the following:	
ENGL 4890 Writing Internship (p. 169)	
MEDIA ST 339 Internship In Journalism (p. 169)	
MEDIA ST 331 Internship In Radio (p. 169)	
MEDIA ST 339 Internship In Television/Film (p. 169)	
Total Hours	6

2. Nine hours in public affairs at the 3000 level or above
  - a. a. Students earning a writing certificate or majoring in communication with a mass communication emphasis must take 15 hours (at least 9 of these at the 3000 level or above) in economics, political science, or sociology.
  - b. b. Students majoring in economics, political science, or sociology must take nine hours (in addition to the required English/communication courses) at the 3000 level or above in addition to English/communication courses chosen from those listed above and/or in the two cognate areas outside their major (i.e., economics, political science, or sociology).

A list of courses applicable to the minor is available from the coordinator.

## Minor in Urban Studies

A minor in urban studies includes 18 hours of course work. Candidates must have a cumulative grade point average of 2.0 or better in the minor. Courses taken on a satisfactory/ unsatisfactory basis may not be applied to the minor. Special topics courses relevant to urban studies may be included in the minor when approved in advance by the coordinator of the urban studies minor.

## Requirements

Students must take:

Select six of the following <sup>1</sup>	18
ART HS 2279 American Architecture (p. 169)	
ART HS 3365 The Artist And The City (p. 169)	
CRIMIN 3230 Crime Prevention (p. 169)	
CRIMIN 4300 Communities And Crime (p. 169)	
ECON 4700 Urban Areas and Real Estate Markets (p. 169)	
HIST 3000 (p. Selected Topics In History 169)	
POL SCI 2350 Introduction To Urban Politics (p. 169)	

POL SCI 3450 Urban Administration (p. 169)	
PSYCH 3256 Environmental Psychology (p. 169)	
SOC 1040 (p. Social Problems 169)	
SOC 2202 (p. Urban Sociology 169)	
SOC 3344 (p. Problems Of Urban Community 169)	
Total Hours	18

- 1 At least three courses at the 3000 level or above. No more than two courses from a single discipline may be included in the minor.

## Courses

### ***INTDSC 1003 University Studies: 1 semester hour***

This course, required of all new freshmen in the College of Arts and Science and the College of Fine Arts and Communication, is designed to assist students in making the transition to the university experience and to UMSL by giving students the knowledge and tools needed to succeed as a scholar. The course will also familiarize students with the relationship between their education and their career and personal goals, and will assist in developing positive connections with faculty, staff, and peers at UMSL. Students will learn about faculty expectations, support services, and student life, as well as academic disciplines. The course counts toward the 120 credit hours needed for graduation.

### ***INTDSC 1030 Language and Communicative Arts Across the Disciplines: 3 semester hours***

Prerequisites: None. This course is designed to advance the academic skills of university-level students. This course consists of listening to academic lectures across the disciplines; reading texts and articles to supplement lectures; writing summaries, essays and responses to exam questions; understanding and editing grammar and sentence structure; phonetics and word stress patterns; presentation skills; and advancing skills in note-taking, critical thinking, and comprehension of advanced college-level vocabulary of various fields of study.

### ***INTDSC 1220 Special Topics In Gerontology: 3 semester hours***

Same as GERON 1220 Selected topics dealing with various aspects of gerontology. The specific content of this course will vary from semester to semester. The course may be repeated with permission from the Gerontology Director.

### ***INTDSC 1999 Big History: From the Big Bang to the Blackberry: 9 semester hours***

An introduction to the humanities, social science, and science disciplines through a sweeping overview of natural and human history from the Big Bang of the present. Course will include lectures from faculty in various Arts and Sciences units, films, field trips, and group discussions.

### ***INTDSC 3010 Peer Mentoring: 1-3 semester hours***

Prerequisites: Instructor's consent required. The objective of this interdisciplinary course is to prepare and support undergraduate students working across campus as learning assistants, tutors, peer mentors, student leaders, etc. The course will support the development of general pedagogical knowledge of active learning, leadership and facilitation skills, and effective communication and listening skills, that they will use to facilitate learning in settings where students are working collaboratively, reviewing course content, or receiving supplemental instruction to guide their success. This course may be repeated for up to 6 credit hours.

# Mathematics and Computer Science

## General Information

### Degrees and Areas of Concentration

The Department of Mathematics and Computer Science offers work leading to the Bachelor of Arts (B.A.) in mathematics, the Bachelor of Science (B.S.) in mathematics, the B.S. in computer science, and, in cooperation with the College of Education, the Bachelor of Secondary Education (B.S.Ed.) in secondary education with an emphasis in mathematics. The department also offers minors in computer science, mathematics, and statistics, as well as a Certificate in Actuarial Studies.

At the graduate level, the department offers a Master of Arts (M.A.) degree in mathematics, a Master of Science (M.S.) degree in computer science and a Doctor of Philosophy (Ph.D.) in applied mathematics – with options in mathematics and computer science.

### Undergraduate Programs Overview

The program leading to the B.A. in mathematics provides a broad grounding in different areas of mathematics, giving students the depth necessary to pursue various aims such as graduate studies or other career choices.

The B.S. in mathematics provides a substantial background in mathematics, statistics and computer science to produce graduates who can work as mathematicians. Both the B.A. and the B.S. in mathematics allow optional courses that enable the student to focus on areas of interest like pure or applied mathematics. Students pursuing the B.A. or the B.S. in mathematics will graduate with analytic and writing skills in mathematics and will have knowledge of content in core areas of the subject. They will have been exposed to applications of mathematics and they will possess critical thinking and quantitative skills.

The B.S.Ed. in secondary education with an emphasis in mathematics introduces students to those branches of mathematics most relevant to the teaching of secondary school mathematics.

The B.S. in computer science curriculum provides a firm foundation for both more traditional computer science as well as for the technical aspects of the emerging information technology areas. This is accomplished through fundamental courses in mathematics and statistics, a rigorous list of core computer science courses, as well as by emphasizing written and oral communication skills, problem solving, and exposure to modern technology. In addition, the program offers a variety of interest specific electives such as graphics, image processing, AI, database systems, networking, security, object-oriented and web-based technology. Given the ever-widening impact of digital technology on daily life, it appears that Computer Science graduates will enjoy significant employment opportunities.

The Certificate in Actuarial Studies is designed to provide the education needed for entry level employment in the actuarial profession.

### Dual Programs

The Department offers dual degree programs in mathematics and computer science for students with strong academic records. The B.A./B.S. and M.A. dual degree program in mathematics and B.S./M.S. dual degree program in computer science are designed to provide an opportunity for strong undergraduate majors to start earning graduate

work credit before actually completing their undergraduate degree and to shorten, or accelerate, the time required as graduate students to earn their degrees.

## Graduate Programs Overview

Students pursuing the M.A. degree in mathematics may choose an emphasis in either pure or applied mathematics. The pure mathematics emphasis is well suited for students preparing to teach at the high school, junior college, or four year liberal arts college level. Those who concentrate on applied courses in the M.A. program build a foundation for the application of mathematics in industry and the continuation of their education in the Ph.D. program in applied mathematics. Our graduates will have abilities in the basic areas of algebra and analysis, and a breadth of knowledge in core subjects at the graduate level. They will study at least one area of mathematics or statistics in depth and will understand some of the contemporary research in applied mathematics and statistics. They will develop the ability to prepare and deliver oral and written presentations and the ability to pursue mathematical knowledge independently.

The M.S. degree in computer science emphasizes practical aspects of the field. Our graduates will develop expertise in at least one modern programming language. They will possess a breadth of knowledge of core areas in computer science, and will develop depth of knowledge in one area of the subject. They will be prepared to independently learn and adapt new technology and they will develop the ability to read current research in some areas. They will have the capability to prepare and deliver oral and written presentations on topics in computer science.

The Ph.D. in applied mathematics has options in mathematics and computer science. The mathematics option prepares students for a leadership role involving research and development in both industrial and academic settings. Students choosing this option will develop abilities in the basic areas of algebra and analysis and will possess breadth of knowledge in core subjects at the graduate level. They will study at least one area of mathematics or statistics in depth and will understand contemporary research in applied mathematics and statistics. They will develop the ability to prepare and deliver oral and written presentations, and they will possess the ability to pursue and produce mathematical knowledge independently.

Students choosing the computer science option will develop a breadth of abilities in the core areas of computer science at the graduate level. They will gain a depth of ability in contemporary research in their chosen subfield of computer science, and will be able to pursue independent research in their area of specialization.

Students may enroll in any of these graduate programs on a part-time basis.

## Career Outlook

A degree in mathematics or computer science prepares well-motivated students for interesting careers. Our graduates find positions in industry, government, and education. The demand for individuals well trained in statistics, computer science, and applied mathematics is greater than the available supply. In addition, a number of graduates in mathematics have elected careers in business, law and other related fields where they find logical and analytical skills valuable.

Graduates in computer science and mathematics from UMSL are located throughout the country, and they also have a strong local presence. They have careers in banking, health care, engineering and manufacturing, law, finance, public service, management, and actuarial management. Many



are working in areas such as systems management, information systems and data management, scientific computing, and scientific positions in the armed services. Others have careers in education, especially at secondary and higher levels.

## Department Scholarships

The Department of Mathematics and Computer Science offers many scholarships available to department majors.

The Alumni Scholarship is a monetary award for outstanding undergraduate students open to all junior and senior department majors.

The Edward Z. Andalafte Memorial Scholarship is a monetary award for outstanding undergraduate department majors at the sophomore level or higher.

Applicants for each of these two scholarships must have a grade point average of 3.5 or higher in at least 24 hours of graded course work at the University of Missouri-St. Louis, and show superior achievement in courses taken in the department.

The Raymond and Thelma Balbes Scholarship in Mathematics is a monetary award for students at the sophomore level or higher who are pursuing a degree in mathematics, have an overall GPA of at least 3.0 and a GPA of at least 3.2 in mathematics and who have completed three semesters of calculus.

The Joseph M. and Mary A. Vogl Scholarship in Mathematics is a need based monetary award for mathematics majors.

The Computer Science Scholarship is a monetary award for outstanding computer science majors with preference given to freshman and sophomore students. Applicants must have a grade point average of 3.5 or higher in courses taken in the department.

The Boeing Company Scholars Program in Computer Science is a monetary award for full-time (at least 12 hours) upper-level undergraduate students in computer science. Recipients must have a minimum GPA of 3.2 and must maintain a GPA of 3.0. Preference will be given to traditionally underrepresented populations.

Application forms for these scholarships may be obtained from the Department of Mathematics and Computer Science in 311 Express Scripts Hall (ESH)..

The deadline for application for all of these scholarships is March 15, and the scholarships must be used for educational fees or for books at UMSL starting in the fall semester following the application.

## Undergraduate Studies

### General Education Requirements

All majors must satisfy the university and appropriate school or college general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>). All mathematics courses may be used to meet the university's general education breadth of study requirement in natural sciences and mathematics.

### Satisfactory/Unsatisfactory Restrictions

Majors in mathematics and computer science may not take mathematical sciences or related area courses on a satisfactory/unsatisfactory basis.

Students considering graduate study should consult with their advisers about taking work on a satisfactory/unsatisfactory basis.

## Degree Requirements

All mathematical sciences courses presented to meet the degree requirements must be completed with a grade of C- or better. At least four courses numbered 3000 or above must be taken in residence. Students must have a 2.0 grade point average in the mathematical sciences courses completed.

Students enrolling in introductory mathematics courses should check the prerequisites to determine if a satisfactory score on the Mathematics Placement Test is necessary. The dates on which this test is administered are given on the department's website. Placement into introductory courses assumes a mastery of two years of high school algebra.

A minimum grade of C- is required to meet the prerequisite requirement for any course except with permission of the department.

Note: Courses that are prerequisites for higher-level courses may not be taken for credit or quality points if the higher-level course has been satisfactorily completed.

Many students are qualified, as a result of having studied calculus in high school, to begin their major with MATH 1900 (p. 182), Analytic Geometry and Calculus II, or MATH 2000 (p. 182), Analytic Geometry and Calculus III. These students are urged to consult with the department before planning their programs. Credit for MATH 1800 (p. 182), Analytic Geometry and Calculus I, will be granted to those students who complete MATH 1900 (p. 182) with a grade of C- or better.

Similarly, students who are ready to begin their computer science studies with CMP SCI 2250 (p. 182), Programming and Data Structures, will be granted credit for CMP SCI 1250 (p. 182), Introduction to Computing, once they complete CMP SCI 2250 (p. 182) with a grade of C- or better.

## Degree Requirements in Mathematics

All mathematics majors in all undergraduate programs must complete the mathematics core requirements.

### Core Requirements

- The following courses are required:

CMP SCI 1250 (p. 182)	Introduction To Computing	3
MATH 1320 (p. 182)	Applied Statistics I	3
MATH 1800 (p. 182)	Analytic Geometry And Calculus I	5
MATH 1900 (p. 182)	Analytic Geometry And Calculus II	5
MATH 2000 (p. 182)	Analytic Geometry And Calculus III	5
MATH 2020 (p. 182)	Introduction To Differential Equations	3
MATH 2450 (p. 182)	Elementary Linear Algebra	3
MATH 3000 (p. 182)	Discrete Structures	3

MATH 4100 (p. Real Analysis I 182)	3
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Total Hours	33

2. The related area requirements as described below must be satisfied. Students seeking a double degree, either within this department or with another department, do not have to fulfill the related area requirements.

## Bachelor of Arts in Mathematics.

In addition to the core requirements and the College of Arts and Sciences' foreign language requirement, three mathematics courses at the 4000 level or higher must be completed. Of these, one must be MATH 4400 (p. 182), Introduction to Abstract Algebra

## B.S.Ed. in Secondary Education with emphasis in mathematics.

In addition to the core requirements and the required education courses, three mathematics/statistics courses at the 4000 level or higher must be completed.

Of these, one must be, Introduction to Abstract Algebra, and one must be chosen from:

MATH 4660 (p. 182), Foundations of Geometry or MATH 4670 (p. 182), Introduction to Non-Euclidean Geometry

## Bachelor of Science in Mathematics

In addition to the core requirements, the B.S. in Mathematics degree requires:

- Completing all of the following:

MATH 4160 (p. Complex Analysis I 182)	3
MATH 4400 (p. Introduction To Abstract Algebra I 182)	3
MATH 4450 (p. Linear Algebra 182)	3
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Total Hours	9
- Completing an additional three courses numbered above 4000 in mathematics, statistics or computer science, at least one of which must be in mathematics/statistics.

## Related Area Requirements for majors in Mathematics

Candidates for the B.A. in Mathematics must satisfy the requirements in one of the groups below with a grade of C-or better. Candidates for the B.S.Ed. in Mathematics and B.S. in Mathematics must satisfy the requirements in two of the groups below with a grade of C-or better.

If candidates choose group 2, then they cannot apply either of the two courses listed in that group towards the additional 4000 level mathematics courses (beyond the core requirements) that must be completed for each of these degrees.

Students seeking a double degree, either within this department or with another department do not have to fulfill the related area requirements.

## Related Area Courses

### 1) Computer Science

Select two of the following:	6
CMP SCI 2250 Programming And Data Structures	
CMP SCI 2700 Computer Organization and Architecture	
CMP SCI 3130 Design And Analysis Of Algorithms	
CMP SCI 4140 Theory Of Computation	
CMP SCI 4410 Computer Graphics	
CMP SCI 4420 Introduction to Digital Image Processing	

### 2) Statistics

MATH 4200	Mathematical Statistics I	3
MATH 4210	Mathematical Statistics II	3

### 3) Biology

BIOL 2102	General Ecology	3
BIOL 2103	General Ecology Laboratory	2

### 4) Biology

BIOL 2012	Genetics	3
BIOL 4182	Population Biology	3

### 5) Chemistry

CHEM 1111	Introductory Chemistry I	5
CHEM 1121	Introductory Chemistry II	5

### 6) Chemistry

CHEM 3312	Physical Chemistry I	3
And another 3000-level, or above, chemistry course.		3

### 7) Economics

ECON 1001	Principles Of Microeconomics	3
ECON 1002	Principles Of Macroeconomics	3
ECON 4100	Introduction To Econometrics	4

### 8) Philosophy

PHIL 3360	Formal Logic	3
PHIL 3380	Philosophy Of Science	3
PHIL 4460	Advanced Formal Logic	3

### 9) Physics

PHYSICS 2111	Physics: Mechanics And Heat	5
PHYSICS 2112	Physics: Electricity, Magnetism, And Optics	5

### 10) Physics

PHYSICS 3221	Mechanics	3
And another 3000 level, or above, physics course.		3

### 11) Business Administration

LOG OM 3320	Introduction To Operations Management	3
and one of the following courses:		
LOG OM 4321	Production and Operations Management	3
LOG OM 4326	Quality Assurance In Business	3
LOG OM 4330	Business Logistics Systems	3
LOG OM 4350	Management Science Methods	3

### 12) Engineering

ENGR 2310	Statics	3
ENGR 2320	Dynamics	3

## Degree Requirements in Computer Science

Candidates for the B. S. Computer Science degree must complete the following work:

### 1) Computer Science Core

CMP SCI 1250 (p. 182)	Introduction To Computing	3
CMP SCI 2250 (p. 182)	Programming And Data Structures	3
CMP SCI 2261 (p. 182)	Object-Oriented Programing	3
CMP SCI 2700 (p. 182)	Computer Organization and Architecture	3
CMP SCI 2750 (p. 182)	System Programming and Tools	3
CMP SCI 3010 (p. 182)	Web Programming	3
CMP SCI 3130 (p. 182)	Design And Analysis Of Algorithms	3
CMP SCI 4250 (p. 182)	Programming Languages	3
CMP SCI 4280 (p. 182)	Program Translation	3
CMP SCI 4500 (p. 182)	Introduction to Software Engineering	3
CMP SCI 4760 (p. 182)	Operating Systems	3

### 2) Computer Science Electives

Select five more elective computer science courses, numbered above 3000. 15

### 3) Mathematics and Statistics

MATH 1320 (p. 182)	Applied Statistics I	3
MATH 1800 (p. 182)	Analytic Geometry And Calculus I	5
MATH 1900 (p. 182)	Analytic Geometry And Calculus II	5
MATH 2450 (p. 182)	Elementary Linear Algebra	3
MATH 3000 (p. 182)	Discrete Structures	3

### 4) Additional Skills

ENGL 3130 (p. 182)	Technical Writing	3
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Total Hours 70

There are no related area requirements for majors in Computer Science

## BS and MS Dual Degree in Computer Science

The Integrated BS/MS ("2+3") dual degree program involves dual credit for qualified undergraduate Computer Science students. It allows the students to concurrently earn credit for some graduate courses while

working on their undergraduate degree, reducing the total hours needed for the subsequent MS degree by up to 12 credit hours.

### Entry Requirements

Undergraduate majors can apply for provisional admission to this program if:

1. They have completed at least 60 credit hours of coursework.
2. Their overall GPA is 3.0 or higher.
3. Non-CS majors must at the same time become CS majors.

Upon acceptance to the program in the provisional status, the student continues to work toward his/her undergraduate degree in computer science.

After completion of a minimum of 90 hours and no more than 30 hours away from the undergraduate degree, a provisionally admitted student applies for formal admission to the graduate program. At this point, the student must meet the entry requirements for admission to the M.S. degree in Computer Science.

### Degree Requirements

After acceptance into the program, the student continues to complete his/her undergraduate degree. The student is reclassified as a graduate student from the next semester and must pay graduate fees. The student will be assigned a graduate adviser to help optimize the transition to the graduate program. The student continues taking the undergraduate courses but is also allowed to take courses reserved for graduate students. The student completes all the courses to fulfill the requirements to complete his/her M.S. degree in Computer Science – but must also complete the undergraduate requirements. Up to 12 credit hours can be counted towards both the undergraduate and graduate degrees, substantially reducing the hours needed to complete the graduate program by itself.

A student may file for and receive the undergraduate degree at any time when all the requirements are completed, before or in the same semester in which the Master's degree is completed. A student must still complete all the requirements to get a B.S. degree, regardless of whether the student files for the degree or not. A student may choose to finish the studies just with a B.S.

## Minor Requirements

The department offers minors in computer science, mathematics, and statistics. All courses presented for any of these minors must be completed with a grade of C- or better.

### Minor in Computer Science

The requirements for the minor are:

CMP SCI 1250 (p. 182)	Introduction To Computing	3
CMP SCI 2250 (p. 182)	Programming And Data Structures	3

Select three additional computer science courses numbered 2000 or above. 9

Total Hours 15

A minimum of two computer science courses numbered above 2000 must be taken in residence in the Department of Mathematics and Computer Science at UMSL.

## Minor in Mathematics

The requirements for the minor are:

MATH 1800 (p. 182)	Analytic Geometry And Calculus I	5
MATH 1900 (p. 182)	Analytic Geometry And Calculus II	5
MATH 2000 (p. 182)	Analytic Geometry And Calculus III	5
Select two additional three-hour mathematics courses numbered above 2400 <sup>1</sup>		6

<sup>1</sup> excluding MATH 2510 (p. 182)

A minimum of two mathematics courses numbered 2000 or above must be taken in residence in the Department of Mathematics and Computer Science at UMSL.

## Minor in Statistics

The requirements for the minor are:

MATH 1320 (p. 182)	Applied Statistics I	3
MATH 4200 (p. 182)	Mathematical Statistics I	3
Select two additional courses in statistics numbered above 4200.		6
Total Hours		12

A minimum of two statistics courses numbered above 2000 must be taken in residence in the Department of Mathematics and Computer Science at UMSL.

## Certificate in Actuarial Studies

Actuaries use the tools of economics, finance, and mathematics to evaluate and price risk. They are employed by insurance companies, pension funds, consulting firms, and a variety of other financial institutions. The actuarial profession has consistently been ranked as one of the most desirable professions in which to be employed. To become an actuary one must satisfy certain educational requirements, pass exams offered by the Society of Actuaries, and complete professional courses.

The Certificate in Actuarial Studies is designed to provide the education needed for entry level employment in the actuarial profession. Those who complete the certificate will satisfy the Validation by Educational Experience requirement of the Society of Actuaries and be prepared to take the first two actuarial examinations (P and M).

Completion of the certificate requires the following courses. Please note that many of these courses have prerequisites so anyone pursuing the certificate should work carefully with an academic advisor.

## Required Courses

FINANCE 3500 (p. 182)	Financial Management	3
FINANCE 3521 (p. 182)	Financial Engineering: Applying Derivatives	3

MATH 4200 (p. 182)	Mathematical Statistics I	3
MATH 4210 (p. 182)	Mathematical Statistics II	3
MATH 4010 (p. 182)	Financial Mathematics I	3
MATH 4020 (p. 182)	Financial Mathematics II	3
Total Hours		18

Residency Requirement: Of the above required six courses at least five must be taken at the University of Missouri-St. Louis.

## Graduate Studies

The Department of Mathematics and Computer Science offers an M.A. degree in mathematics, a Ph.D. degree in applied mathematics (with options in mathematics and computer science), and an M.S. degree in computer science.

## Admission

Applicants must meet the general admission requirements of the Graduate School, described elsewhere in this Bulletin. Additional admission requirements for specific programs are listed below.

## Mathematics Programs

Applicants must have at least a bachelor's degree in mathematics or in a field with significant mathematical content. Examples of such fields include computer science, economics, engineering and physics. An applicant's record should demonstrate superior achievement in undergraduate mathematics.

Individuals may apply for direct admission to either the M.A. or Ph.D. program. Candidates for the M.A. degree may choose to concentrate in either pure or applied mathematics. Students in the M.A. program who want to transfer to the Ph.D. program upon successful completion of 15 credit hours must fill out a new application through Graduate Admissions.

Students intending to enter the Ph.D. program must have a working ability in modern programming technologies. A student with a deficiency in this area may be required to take courses at the undergraduate level in computer science.

Applicants for the Ph.D. program must, in addition, submit three letters of recommendation and scores from the Graduate Record Examination (GRE) general aptitude test.

## Computer Science Programs

Applicants must have at least a bachelor's degree, preferably in computer science or in a related area. Applicants with bachelor's degrees outside of computer science must demonstrate significant proficiency in computer science by showing competence (proving related academic or professional experience, or taking a test) in the following areas. Courses in parenthesis are UMSL courses that can be used to fulfill the requirement.

Programming skills in C or C++ and Java (CMP SCI 1250 or CMP SCI 2250, and CMP SCI 2261)

Proficiency with Object-Oriented concepts and terminology (CMP SCI 2261)



Proficiency with dynamic data structures (CMP SCI 2250)

Proficiency with computer organization, architecture, or assembly level programming (CMP SCI 2700)

Proficiency with design and time/space analysis of algorithms (CMP SCI 3130)

Familiarity with Unix/Linux/OSX and with command-line scripting with tools (CMP SCI 2750)

Students must also have satisfactorily completed mathematics courses equivalent to the following UMSL courses:

Two semesters of calculus (MATH 1800 and MATH 1900)

A course in elementary linear algebra (MATH 2450)

A course in discrete mathematics (MATH 3000)

An elementary course in probability or statistics (MATH 1320)

A student missing some of the above requirements may be admitted on restricted status if there is strong supportive evidence in other areas. The student will have to take the missing courses, or otherwise demonstrate proficiency. Special regulations of the Graduate School that apply to students on restricted status are described in the UMSL Bulletin.

## Preliminary Advisement

Incoming students are assigned advisers with whom they should consult before each registration period to determine an appropriate course of study. If necessary, students may be required to complete undergraduate course work without receiving graduate credit.

Students interested in the Ph.D. program in applied mathematics with the computer science option must follow the requirements for that program and that option.

## Degree Requirements

### Master of Arts in Mathematics

Candidates for the M.A. degree must complete 30 hours of course work. All courses numbered below 5000 must be completed with grades of at least B. The courses taken must include those listed below in group A together with additional courses discussed in B.

Students who have already completed courses equivalent to those in A) may substitute other courses numbered above 4000. All substitutions of courses for those listed in A) require the prior approval of the graduate director.

A. Mathematics core:

MATH 4100 (p. 182)	Real Analysis I	3
MATH 4160 (p. 182)	Complex Analysis I	3
MATH 4450 (p. 182)	Linear Algebra	3
Total Hours		9

B. M.A. candidates must also complete 15 hours of course work numbered 5000 or above, chosen with the prior approval of the graduate director.

Courses may be chosen to develop expertise in either pure or applied mathematics.

## Thesis Option

Part of B) may consist of an M.A. thesis written under the direction of a faculty member in the Department of Mathematics and Computer Science. A thesis is not, however, required for this degree. A student who wishes to write a thesis should enroll in 6 hours of MATH 6900 (p. 182), M.A. Thesis. Students writing an M.A. thesis must defend their thesis in an oral exam administered by a committee of three department members which includes the thesis director.

## BA/BS and MA Dual Degree Program in Mathematics

This is an integrated BA/BS and MA ("2+3") dual degree program in Mathematics: it is designed to provide an opportunity for mathematics majors at the University of Missouri-St Louis (UMSL) with a strong academic record to start earning graduate work credit before actually completing their undergraduate degree and to shorten, or accelerate, the time required as graduate students to earn their master's degree. A student in this program can apply up to 12 credit hours of 4000-and-above level courses towards both programs.

### Entry Requirements

- Undergraduate math majors can apply for provisional admission for this program if:
  - They have completed at least 60 credit hours of coursework and
  - Their GPA is 3.0 or higher.

Students submit their applications to the department. Once a student is admitted in this provisional status, the student continues to work toward his/her undergraduate degree until the student completes 90-102 undergraduate credit hours. Meanwhile the student will be advised to complete the required courses for graduate admission.

- A provisionally admitted student is reviewed for formal admission after completing 90 undergraduate credit hours. Minimal requirements for admission include:
  - GPA of 3.0 or higher at the time of the review
  - MATH 1320, MATH 2020, MATH 2450, MATH 3000 - all completed with a grade of B- or higher.

A student's application meeting the minimal requirements does not mean the student is automatically admitted in this program. The math graduate committee will review the application and make a decision. In case the application is approved, the student needs to complete a formal application for admission into the graduate program and is recommended for admission by the graduate committee.

### Degree Program

- The current separate requirements for BA/BS and MA in math remain unchanged.
- Once the student is admitted in this program, the student is allowed to take graduate courses (paid with graduate fees).
- The student in this program can apply up to 12 credit hours of 4000-and-above level courses towards both the bachelor and master's degrees. The student may get the BA/BS and MA degrees at the same time.

4. In case a student cannot complete the master's degree for some reason, up to 12 credit hours of graduate level courses can be applied towards the BA/BS degree.
5. Students will pay graduate fees for all courses after being admitted and starting the program.

## Doctor of Philosophy in Applied Mathematics

The program has two options:

1. Mathematics Option
2. Computer Science Option

The requirements for the Ph.D. degree include the following:

1. Course work
2. Ph.D. candidacy
3. Doctoral dissertation

The requirements are described in detail below.

1. Course Work  
A minimum of 60 hours of courses numbered 4000 or above.

In the Mathematics Option, at least 33 hours must be in courses numbered 5000 or above.

In the Computer Science Option, at least 45 hours must be in courses numbered 5000 or above.

At most 9 hours of a student's enrollment in MATH 7990 (p. 182) (Dissertation Research) may be counted. Students are expected to maintain a 3.0 average on a 4.0 scale. All courses numbered below 5000 must be completed with a grade of at least B. Courses outside the Department of Mathematics and Computer Science will require approval of the graduate director.

When students who have earned a Master's degree are admitted to the doctoral program, appropriate credits of course work may be applied toward meeting the requirements for the doctoral degree, subject to Graduate School regulations and the approval of the graduate director. The same applied to those with some appropriate graduate credits but without a completed Master's degree.

2. Ph.D. Candidacy  
Advancement to Ph.D. candidacy is a three-step process consisting of:
  - a. Completing 18 hours of 5000 level courses other than MATH 7990 (p. 182), Ph.D. Dissertation Research.
  - b. Passing the comprehensive examination.
  - c. Selecting a Ph.D. committee and preparing a dissertation proposal and defense of the proposal.

## Qualifying Examination

A student must fulfill the following requirements.

### Basic Requirement

Pass one written examination covering fundamental topics. This examination would normally take place within the first 12 credit hours of study after admission to the Ph.D. program.

## Mathematics Option

Topics from real analysis, complex analysis, and linear algebra:

MATH 4100 (p. 182)	Real Analysis I	3
MATH 4160 (p. 182)	Complex Analysis I	3
MATH 4450 (p. 182)	Linear Algebra	3
Total Hours		9

## Computer Science Option

Topics from the theory of programming languages, operating systems, analysis of algorithms, and computer systems:

CMP SCI 4250 (p. 182)	Programming Languages	3
CMP SCI 4760 (p. 182)	Operating Systems	3
CMP SCI 5130 (p. 182)	Advanced Data Structures And Algorithms	3
CMP SCI 5700 (p. 182)	Computer Systems	3
Total Hours		12

## Additional Requirement

After fulfilling the basic requirement above, the student must meet one of the following:

1. Pass a written examination in an area of the student's interests. This area will be approved by the graduate committee and will be based on a set of two or more graduate courses taken by the student. This examination would normally take place within the first 24 credit hours of study after admission to the Ph.D. program.
2. Write a survey paper in a specialized area under the direction of a member of the graduate faculty. The student should propose to take this option when he/she has already finished at least 2 graduate level courses and has the approval of the graduate committee. The paper should be submitted within four semesters, at which time an oral examination given by a committee of at least three members of the graduate faculty must be passed.

In both parts 1) and 2), the graduate committee will determine if the topics are consistent with the option that the student is pursuing.

## Dissertation Committee and Dissertation Proposal

After completing the comprehensive examinations, each student chooses a dissertation advisor and prepares a Dissertation Proposal. Usually students choose an advisor from contacts made through their course work. The dissertation committee will be formed, and the student will meet with this committee for an oral defense of his/her dissertation proposal. The dissertation proposal is a substantial document describing the problem to be worked on and the methods to be used, as well as demonstrating the student's proficiency in written communication.

## Doctoral Dissertation

Each Ph.D. candidate must write a dissertation that is an original contribution to the field on a topic approved by the candidate's Ph.D. Committee and the department, and which meets the standards and requirements set by the Graduate School including the public defense of the dissertation. Students working on a dissertation may enroll in MATH 7990 (p. 182), Ph.D. Dissertation Research. A maximum of 9 hours in MATH 7990 (p. 182) can be used toward the required hours of work in courses numbered 5000 or above.

## Master of Science in Computer Science

Candidates for the M.S. degree in Computer Science must complete 30 hours of course work, subject to the Graduate School regulations. Of these, at least 18 hours must be numbered 5000 or above, with at least one course numbered 6000 or above, chosen with the prior approval of the Graduate Director. All courses numbered below 5000 must be completed with grades of at least B-. Outside computer science, up to 6 hours of related course work is allowed upon permission of the Graduate Director.

Students must satisfy all of the following core requirements:

CMP SCI 4760 (p. 182)	Operating Systems	3
CMP SCI 4250 (p. 182)	Programming Languages	3
CMP SCI 5700 (p. 182)	Computer Systems	3
CMP SCI 5500 (p. 182)	Software Engineering	3
CMP SCI 5130 (p. 182)	Advanced Data Structures And Algorithms	3
Total Hours		15

Waiving or substituting for a specific requirement can be done on the basis of prior course work or experience at the discretion of the Graduate Director, but it will not reduce the total hours required for the degree.

Additionally, students must attend at least five different seminars or colloquium presentations in the department.

## Thesis Option

Students may choose to write an M.S. thesis under the direction of a faculty member in the Department of Mathematics and Computer Science. A thesis is not, however, required for this degree. A student who wishes to write a thesis should enroll in 6 hours of CMP SCI 6900 (p. 182), Thesis. Students writing an M.S. thesis must defend their thesis in an oral exam administered by a committee of three department members which includes the thesis director.

## BS and MS Dual Degree in Computer Science

The Integrated BS/MS ("2+3") dual degree program involves dual credit for qualified undergraduate Computer Science students. It allows the students to concurrently earn credit for some graduate courses while working on their undergraduate degree, reducing the total hours needed for the subsequent MS degree by up to 12 credit hours.

### Entry Requirements

Undergraduate majors can apply for provisional admission to this program if:

1. They have completed at least 60 credit hours of coursework.
2. Their overall GPA is 3.0 or higher.
3. Non-CS majors must at the same time become CS majors.

Upon acceptance to the program in the provisional status, the student continues to work toward his/her undergraduate degree in computer science.

After completion of a minimum of 90 hours and no more than 30 hours away from the undergraduate degree, a provisionally admitted student applies for formal admission to the graduate program. At this point, the student must meet the entry requirements for admission to the M.S. degree in Computer Science.

### Degree Requirements

After acceptance into the program, the student continues to complete his/her undergraduate degree. The student is reclassified as a graduate student from the next semester and must pay graduate fees. The student will be assigned a graduate adviser to help optimize the transition to the graduate program. The student continues taking the undergraduate courses but is also allowed to take courses reserved for graduate students. The student completes all the courses to fulfill the requirements to complete his/her M.S. degree in Computer Science – but must also complete the undergraduate requirements. Up to 12 credit hours can be counted towards both the undergraduate and graduate degrees, substantially reducing the hours needed to complete the graduate program by itself.

A student may file for and receive the undergraduate degree at any time when all the requirements are completed, before or in the same semester in which the Master's degree is completed. A student must still complete all the requirements to get a B.S. degree, regardless of whether the student files for the degree or not. A student may choose to finish the studies just with a B.S.

## Financial Assistance

Any student who intends to apply for financial assistance, in the form of a teaching assistantship or a research assistantship, is required to have three letters of recommendation submitted with the application to the graduate program in Mathematics or Computer Science. The application must include scores on the GRE general aptitude test. Applicants are also encouraged to submit scores in the GRE subject area test in Mathematics or Computer Science. Applications for financial assistance should be submitted before February 15 prior to the academic year in which the student expects to begin graduate study. Notifications of awards are generally made March 15, and students awarded financial assistance are expected to return letters of acceptance by April 15.

## Sample Four Year Plans

Mathematics BA (p. 189) Mathematics BS (p. 190) Computer Science BS (p. 190)

### Mathematics BA

First Year	Hours Spring	Hours
Fall		
INTDSC 1003 <sup>1</sup>	1 CMP SCI 1250	3
ENGL 1100	3 MATH 1800	5

MATH 1030	3 General Education	9
MATH 1035	2	
General Education	6	
	<b>15</b>	<b>17</b>
<b>Second Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
MATH 1320	3 MATH 2000	5
MATH 1900	5 Foreign Language 1001	5
General Education	9 General Education	6
	<b>17</b>	<b>16</b>
<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
MATH 3000	3 MATH 2020	3
ENGL 3100	3 MATH 2450	3
Foreign Language 1002	5 MATH 4000+ level course	3
Elective or minor	3 Foreign Language 2101	3
	<b>14</b>	<b>12</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
MATH 4100	3 MATH 4400	3
MATH 4000+ level course	3 Related area course	3
Related area course	3 Elective or minor	9
Elective or minor	6	
	<b>15</b>	<b>15</b>

Total Hours: 121

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Mathematics BS

<b>First Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
INTDSC 1003	1 MATH 1800	5
ENGL 1100	3 CMP SCI 125C	3
MATH 1030	3 General Education	9
MATH 1035	2	
General Education	6	
	<b>15</b>	<b>17</b>
<b>Second Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
MATH 1320	3 MATH 2000	5
MATH 1900	5 General Education	9
General Education	9	
	<b>17</b>	<b>14</b>

<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
MATH 3000	3 MATH 2020	3
ENGL 3100	3 MATH 2450	3
General Education	6 CMP SCI/ MATH/ STAT 4000+ level course	3
	Related area course	3
	General Education	3
	<b>12</b>	<b>15</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
MATH 4100	3 MATH 4400	3
CMP SCI/ MATH/ STAT 4000+ level course	3 MATH 4160	3
MATH/STAT 4000+ level course	3 MATH 4450	3
Related Area courses	6 Related Area courses	6
	<b>15</b>	<b>15</b>

Total Hours: 120

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Computer Science BS

<b>First Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
INTDSC 1003 <sup>1</sup>	1 CMP SCI 1250	3
ENGL 1100	3 MATH 1800	5
MATH 1030	3 General Education	9
MATH 1035	2	
General Education	6	
	<b>15</b>	<b>17</b>
<b>Second Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
CMP SCI 2250	3 CMP SCI 2261	3
MATH 1320	3 CMP SCI 270C	3
MATH 1900	5 CMP SCI 2750	3
General Education	6 General Education	6-8
	<b>17</b>	<b>15-17</b>
<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
CMP SCI 3010	3 CMP SCI 4250	3
MATH 2450	3 CMP SCI 313C	3
MATH 3000	3 CMP SCI 3000+ level elective	6
ENGL 3130	3 General Education	3
General Education		
	<b>12</b>	<b>15</b>



## Fourth Year

Fall	Hours Spring	Hours
CMP SCI 4280	3 CMP SCI 4500	3
CMP SCI 3000+ level elective	6 CMP SCI 476C	3
General Education	6 CMP SCI 3000+ level elective	3
	Elective or minor	6
	<b>15</b>	<b>15</b>

Total Hours: 121-123

- <sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Computer Science Courses

### **CMP SCI 1010 Introduction To Computers And The Internet: 3 semester hours**

Prerequisites: None. Covers basic concepts and components of a PC: survey of popular applications including e-mail, word processors, spreadsheets, overview of the Internet, popular browsers, World Wide Web, search engines, multimedia, web pages, security, and privacy. Credit not granted for both CMP SCI 1010 and INFSYS 1800.

### **CMP SCI 1011 Introduction to the Internet and World Wide Web: 3 semester hours**

Intended for any student wishing to utilize the Internet and World Wide Web more effectively. Topics include networking basics, the Internet and World Wide Web, browsers, search engines, Web Services, utilities, tools, online privacy and security. Students will learn to develop a personal web page using skills acquired in the course.

### **CMP SCI 1012 Learning to Program Using Virtual Worlds: 3 semester hours**

Introduces modern programming principles without requiring the knowledge of a traditional programming language. Instead, this course utilizes a novel graphical approach that enables the student to create, populate, and manipulate virtual 3-dimensional worlds which resemble video games. The development of these worlds allows students to gain direct experience and skills in using computers to solve problems. Students will create worlds of varying complexity.

### **CMP SCI 1250 Introduction To Computing: 3 semester hours**

Prerequisites: MATH 1030 with B- or better, or MATH 1100, or MATH 1800. Provides an introduction to the concepts of computation, problem solving, and computer systems. Covers fundamental programming constructs, basic data types, and modularization using a modern high level language. Problem solving skills are developed through a progression of programming projects.

### **CMP SCI 2250 Programming And Data Structures: 3 semester hours**

Prerequisite: CMP SCI 1250. Continuation of CMP SCI 1250. Discusses properties and implementation of abstract data types such as lists, trees, stacks and queues. Introduces procedural and class abstraction, basic program architecture, use of interfaces, modular programming, and file processing.

### **CMP SCI 2261 Object-Oriented Programming: 3 semester hours**

Prerequisite: CMP SCI 2250. Introduces object-oriented concepts, terminology, and notation (UML) using Java. Covers encapsulation, classes, objects, inheritance, and the use of class libraries. Additional topics may include graphical user interfaces, applets, and related tools and technologies.

### **CMP SCI 2700 Computer Organization and Architecture: 3 semester hours**

Prerequisite: CMP SCI 2250. Introduces details of computer systems from architectural and organizational points of view. Covers data representation, basic digital logic circuits, memory types and hierarchies, I/O and storage devices, CPU architectures such as RISC, CISC, parallel, and multi-core.

### **CMP SCI 2750 System Programming and Tools: 3 semester hours**

Prerequisites: CMP SCI 2250. Covers systems programming, scripting, libraries, utilities, and development tools. Additional programming topics include piping, binary files, exception handling, command-line arguments and symbolic debugging. This course also explores tools available in the Unix/Linux environments.

### **CMP SCI 3010 Web Programming: 3 semester hours**

Prerequisite: CMP SCI 2250 Provides a survey of current Web technologies including markup languages (such as HTML/XHTML, CSS, XML), client side languages (such as JavaScript), server side languages (such as PERL, PHP), and Web protocols. This course requires client-server computing projects.

### **CMP SCI 3130 Design And Analysis Of Algorithms: 3 semester hours**

Prerequisites: CMP SCI 2250, MATH 1320, MATH 2450, and MATH 3000. Addresses the design and analysis of fundamental algorithms in computer science. Studies basic sorting algorithms, priority queues, order statistics, search trees, and hash tables. Analysis techniques may involve time and space complexity analysis of both iterative and recursive algorithms, analysis of algorithm correctness, and amortized complexity analysis. Additional topics may include data compression, string manipulation, greedy algorithms, dynamic programming, and graph traversal.

### **CMP SCI 3710 Assembly Language Programming: 3 semester hours**

Prerequisite: CMP SCI 2700. Explores machine architecture concepts and principles through a study of assembly language programming. Topics covered include integer and floating point arithmetic, procedures, conditional processing, strings, macros, and interfaces to high level languages. Programming projects using a commercially available assembly language will be required.

### **CMP SCI 4010 Advanced Web Development with Java: 3 semester hours**

Prerequisites: CMP SCI 2261 and CMP SCI 3010, or consent of instructor. Covers more advanced Java topics, along with related concepts and technologies for Web development. Topics may include database connectivity, multi threading, security, networking, MVC pattern, testing and source control for Java applications, and server-side topics such as servlets and web servers.

### **CMP SCI 4030 Introduction to Intelligent Web: 3 semester hours**

Prerequisites: CMP SCI 2261, CMP SCI 2750, CMP SCI 3010, and CMP SCI 3130. Covers the application of artificial intelligence and other modern techniques to help construct, navigate, and experience the Web. Topics may include retrieval models, classification, mining, association, topology, and indexing algorithms such as PageRank and HITS. Credit cannot be earned for both CMP SCI 4030 and CMP SCI 5030.

**CMP SCI 4140 Theory Of Computation: 3 semester hours**

Prerequisite: CMP SCI 3130. Provides an introduction to the theory of computation. Describes basic computational models, such as finite state machines, pushdown automata, Turing machines and grammars. Covers the concept of nondeterministic computation and the relationships between different computational models. Discusses decidability, reducibility, and classification of problems into complexity classes based on their time and space complexity, such as P, NP, and PSPACE.

**CMP SCI 4250 Programming Languages: 3 semester hours**

Prerequisite: CMP SCI 2261 and CMP SCI 3010 or Graduate Standing. Studies the principles, approaches, and trade-offs in modern programming languages, including a comparative study of syntax, semantics, and pragmatics. Examines major programming paradigms: object-oriented, imperative, functional and logic.

**CMP SCI 4280 Program Translation: 3 semester hours**

Prerequisites: CMP SCI 2700, CMP SCI 2750, CMP SCI 3130 and CMP SCI 4250. Focuses on methods, techniques, and mechanisms used to create the abstraction from high level programming to machine level execution. This course also requires an individual, semester long project.

**CMP SCI 4300 Introduction To Artificial Intelligence: 3 semester hours**

Prerequisites: CMP SCI 2261, CMP SCI 2750 and CMP SCI 3130. Provides an introduction to artificial intelligence. The list of topics may include search, planning, knowledge-based reasoning, probabilistic inference, machine learning, natural language processing, and practical applications.

**CMP SCI 4340 Introduction to Machine Learning: 3 semester hours**

Prerequisites: CMP SCI 2261, CMP SCI 2750 and CMP SCI 3130. Provides an introduction to machine learning in the context of applications such as data mining, natural language processing, and adaptive computer systems. The course reviews several supervised, unsupervised, and reinforcement machine learning techniques such as naive Bayes networks, clustering, and decision trees. Selected concepts in computational learning theory may also be covered. Credit cannot be granted for both CMP SCI 4340 and CMP SCI 5340.

**CMP SCI 4410 Computer Graphics: 3 semester hours**

Prerequisites: CMP SCI 2750 and CMP SCI 3130. Covers the theoretical foundation and algorithms for computer graphics. Students learn the basics of graphics programming for modeling, rendering, and animation of 2D and 3D objects. Vector and raster graphics, and different display devices are also discussed. A brief discussion of special graphics hardware, such as GPU, may be presented.

**CMP SCI 4420 Introduction to Digital Image Processing: 3 semester hours**

Prerequisites: CMP SCI 2750 and CMP SCI 3130. Focuses on image analysis and visual perception. Students learn data structures and algorithms for image processing, region and texture analysis, image filtering, edge detection, contour following, and image enhancement in both spatial and frequency domain. Other topics may include color processing, coding for storage, retrieval, transmission, and image restoration. Credit cannot be granted for both CMP SCI 4420 and CMP SCI 5420.

**CMP SCI 4500 Introduction to the Software Profession: 3 semester hours**

Prerequisite: CMP SCI 2261, CMP SCI 2700, CMP SCI 2750, CMP SCI 3010, and CMP SCI 3130. Focuses on software development and on the skills required for success in the software profession. Topics related to software development may include software process, models and views, software architectures, documentation, and testing strategies. Topics related to the profession may include ethics, licensing, copyright, trademarks, and professional conduct. Individual and group projects, research, and presentations may be required in this capstone course.

**CMP SCI 4520 Introduction to Object-Oriented Analysis And Design: 3 semester hours**

Prerequisite: CMP SCI 2261, CMP SCI 3010, CMP SCI 3130. Covers object-oriented development, illustrated with a visual modeling language and following an agile process. Discusses elements of analysis, requirements, design, implementation, and deployment such as use cases, static and dynamic diagrams, patterns, and frameworks. This course includes a semester long project starting with requirements and culminating with deployment. Credit not granted for both CMP SCI 4520 and CMP SCI 5520.

**CMP SCI 4610 Database Management Systems: 3 semester hours**

Prerequisites: CMP SCI 2750 and MATH 3000. Focuses on database theory and applications, with emphasis on the relational model. Topics include database design, modeling, file systems, indexing, integrity constraints, relational algebra, normalization, transaction processing, and concurrency control. Students are exposed to emerging DBMS technologies and applications. Several programming projects will be required, using a popular SQL server.

**CMP SCI 4730 Computer Networks And Communications: 3 semester hours**

Prerequisites: CMP SCI 2750 and MATH 1320. Covers communication systems in the context of the ISO and TCP/IP standards for systems interconnection. Covers various types of networks including wide area networks, local area networks, and fiber optic networks.

**CMP SCI 4760 Operating Systems: 3 semester hours**

Prerequisites: CMP SCI 2700, CMP SCI 2750, and CMP SCI 3130. Covers the structure of a generic operating system, considering in detail the algorithms for interprocess communication, process scheduling, resource management, memory management, file systems, and device management. Presents examples from contemporary operating systems. This course also requires practical projects implemented within a modern operating system or simulator environment.

**CMP SCI 4780 Computer and Network Security: 3 semester hours**

Prerequisite: CMP SCI 2750. Covers major issues relevant to providing security in a networked environment. The course includes algorithms and protocols for secure communications between computers.

**CMP SCI 4880 Individual Studies: 1-3 semester hours**

Prerequisites: Consent of the instructor. This course allows a student to pursue individual studies under the supervision of a faculty member. It may include development of a software project. The course may be repeated for credit.

**CMP SCI 4890 Topics In Computer Science: 3 semester hours**

Prerequisites: Consent of the Instructor. Covers a special topic in computer science to be determined by recent developments in the field and the interests of the instructor. Course may be repeated for credit.

**CMP SCI 5010 Enterprise Web Development: 3 semester hours**

Prerequisite: CMP SCI 4010 or consent of instructor. Covers design and implementation issues for enterprise web development, and some popular advanced technologies. Topics include MVC and persistence frameworks, such as Spring and Hibernate. Other topics may include Java Web services, EJB, messaging standards such as JMS, and Java EE design patterns. Students will develop enterprise-level web application projects using the.

**CMP SCI 5030 Intelligent Web: 3 semester hours**

Prerequisite: Consent of the instructor. Covers the application of artificial intelligence and other modern techniques to help construct, navigate, and experience the Web. Topics may include retrieval models, classification, mining, association, topology, and indexing algorithms such as PageRank and HITS. Topics are the same as CMP SCI 4030 but material is covered at a greater depth and additional projects are required. Credit cannot be earned for both CMP SCI 4030 and CMP SCI 5030.

**CMP SCI 5130 Advanced Data Structures And Algorithms: 3 semester hours**

Prerequisite: An elementary course in analysis of algorithms or consent of the instructor. This course covers analysis of time and space complexity of iterative and recursive algorithms along with performance bounds, design of data structures for efficient performance, sorting algorithms, probabilistic algorithms, divide and conquer strategies, various algorithms on graphs, and np completeness.

**CMP SCI 5320 Introduction To Evolutionary Computation: 3 semester hours**

Prerequisites: CMP SCI 4300 or consent of instructor. This course introduces the concepts of nature-inspired problem solving population dynamics, Darwinian selection, and inheritance. It discusses problems applicable to evolutionary algorithms, overviews the existing models and instances, and analyzes specific instances such as genetic algorithms and genetic programming.

**CMP SCI 5340 Machine Learning: 3 semester hours**

Prerequisites: Consent of instructor. Provides an introduction to machine learning in the context of applications such as data mining, natural language processing and adaptive computer systems. Reviews several supervised, unsupervised, and reinforcement machine learning techniques such as naive Bayes networks, clustering and decision trees. Selected concepts in computational learning theory may also be covered. Topics are the same as CMP SCI 4340 but material is covered at a greater depth and additional projects are required. Credit cannot be granted for both CMP SCI 4340 and CMP SCI 5340.

**CMP SCI 5420 Digital Image Processing: 3 semester hours**

Prerequisites: Consent of instructor. Covers topics in image analysis and visual perception. Students learn data structures and algorithms for image processing, region and texture analysis, image filtering, edge detection, contour following, and image enhancement in both spatial and frequency domain. Other topics may include color processing, coding for storage, retrieval, transmission, and image restoration. Topics are the same as CMP SCI 4420 but material is covered at a greater depth and additional projects are required. Credit cannot be granted for both CMP SCI 4420 and CMP SCI 5420.

**CMP SCI 5500 Software Engineering: 3 semester hours**

Prerequisite: Consent of instructor. Introduces software engineering as a discipline, discusses stages of the software life cycle, compares development models such as waterfall, prototyping and incremental/iterative, covers requirements analysis, effort and cost estimation, compares structured and object-oriented analysis and design methods. Discusses verification/validation, quality assurance, software reliability, testing methods, maintenance, documentation, project management and team structure, metrics, and available tools.

**CMP SCI 5520 Object Oriented Analysis And Design: 3 semester hours**

Prerequisite: Consent of the instructor. Covers object-oriented development, illustrated with visual modeling language and following an agile process. Discusses elements of analysis, requirements, design, implementation, and deployment such as use cases, static and dynamic diagrams, patterns and frameworks. A semester long project, starting with requirements and culminating with deployment, is required. Topics are the same as CMP SCI 4520 but material is covered at a greater depth and additional projects are required. Credit not granted for both CMP SCI 4520 and CMP SCI 5520.

**CMP SCI 5700 Computer Systems: 3 semester hours**

Prerequisite: Background in computer organization or architecture or consent of the instructor. This course focuses on parallel computing architectures, including RISC, pipelining, vector processing, SIMD, MIMD, and array processing. It introduces different memory and I/O subsystems, hardware description languages, and it demonstrates performance enhancement using different architectures studied.

**CMP SCI 5740 High Performance Computing: 3 semester hours**

Prerequisite: Consent of the instructor. Introduces algorithms for multiprocessor and multi-core architectures. Students learn the models of modern parallel computation and techniques to take advantage of parallel architectures for distributed and shared memory multi-processor architectures.

**CMP SCI 5880 Computer Science Independent Project: 1-3 semester hours**

Prerequisites: Graduate standing and consent of instructor This course offers the student an opportunity to work on an advisor-supervised project, individually or in a group. A student may repeat the course for up to 6 credit hours total, but at most 6 hours can be accumulated for CMP SCI 5880 and CMP SCI 6900.

**CMP SCI 5890 Topics In Computer Science: 1-3 semester hours**

Prerequisites: Graduate standing and consent of the instructor This course offers various topics not offered on a regular basis. It may be taken more than once for credit with the consent of the department.

**CMP SCI 5900 Graduate Internship in Computer Science: 3 semester hours**

Prerequisites: Consent of Advisor The internship provides for a student to attain field experience in an organization related to Computer Science. A student is employed off-campus for an assignment of at least 320 hours working on a project as directed by his/her supervisor in the host organization. The project should be approved by the student's academic advisor, or a designated faculty member, who will monitor the student's progress. The student is responsible for having the project supervisor at the company establish contact with the academic advisor to establish schedule and goals, and a procedure to evaluate the goals. The student will submit a written report to the advisor at the end of internship. The course cannot be repeated for credit. Students completing this course will be allowed only up to three hours of Independent Study (CMP SCI 5880).



***CMP SCI 6320 Advances In Evolutionary Computation: 3 semester hours***

Prerequisite: CMP SCI 5320 or consent of instructor. This course focuses on some advanced topics in Genetic and Evolutionary Computation, both theoretical and practical. Topics may include competent genetic algorithms, learning classifier systems, and Markov models. A substantial part of the course will be based on recent literature. Projects may involve literature research, developing specific applications or implementing a specific model.

***CMP SCI 6340 Genetic Programming: 3 semester hours***

Prerequisite: CMP SCI 5320 or consent of instructor. This course provides an in-depth exploration of Genetic programming, including advanced concepts such as scalability, evolution of modularity and regularity, and constrained evolution with CGP, STGP, or CFG-based GP. It may be reading, research, or application oriented.

***CMP SCI 6410 Topics In Computer Graphics: 3 semester hours***

Prerequisites: CMP SCI 4410 or consent of instructor This course covers various aspects of advanced graphics techniques, such as geometric modeling, rendering, shading, texturing, and computer animation. The course provides an indepth study of recent advanced topics in computer graphics.

***CMP SCI 6420 Topics In Image Processing And Multimedia: 3 semester hours***

Prerequisites: CMP SCI 5400, CMP SCI 5420 or consent of instructor. This course covers new developments in digital image processing, computer vision, and multimedia. Topics to be covered may include image databases, object tracking, and large-scale data visualization.

***CMP SCI 6740 High Performance Computing: 3 semester hours***

Prerequisites: CMP SCI 5740, or Graduate standing and consent of instructor. Looks at the current state of the art in parallel and distributed computing, with emphasis on programming in such environments. Introduction to the state of the art in code optimization and grid computing environments.

***CMP SCI 6900 Thesis: 1-6 semester hours***

Prerequisites: Completion of at least 12 graduate credits and approval of research topic by thesis advisor. This course is designed for those students intending to present a thesis as part of their M.S. program. At most 6 hours can be accumulated for CMP SCI 5880 and CMP SCI 6900.

**Mathematics Courses*****MATH 0005 Intermediate Algebra: 3 semester hours***

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Preparatory material for college level mathematics courses. Covers systems of linear equations and inequalities, polynomials, rational expressions, exponents, quadratic equations, graphing linear and quadratic functions. This course carries no credit towards any baccalaureate degree.

***MATH 1020 Contemporary Mathematics: 3 semester hours***

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Presents methods of problem solving, centering on problems and questions which arise naturally in everyday life. May include aspects of algebra and geometry, the mathematics of finance, probability and statistics, exponential growth, and other topics chosen from traditional and contemporary mathematics which do not employ the calculus. May be taken to meet the mathematical proficiency requirement, but may not be used as a prerequisite for other mathematics courses. Designed for students who do not plan to take calculus. Credit will not be granted for MATH 1020 if credit has been granted for MATH 1310, MATH 1800, MATH 1100, MATH 1102, or MATH 1105. Concurrent enrollment in MATH 1020 and any of these courses is not permitted.

***MATH 1021 Choice and Chance: 3 semester hours***

Same as PHIL 1021. Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. This course provides an introduction to inductive logic and the theory of probability in an organized and systematic way, so as to give students tools for more effective decision-making. We will introduce the probability calculus, basic concepts of utility theory, decision theory and different approaches to understanding probability. This course is designed to be accessible to students of all levels. Satisfies mathematics proficiency.

***MATH 1025 Geometry in the Real World: 3 semester hours***

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Presents topics in geometry designed to enrich the student's understanding of mathematics. Geometry as it applies to the physical world and such fields as art, music, nature, motion, architecture and city planning will be examined. This course is designed to be accessible to students of all levels. Satisfies mathematics proficiency.

***MATH 1030 College Algebra: 3 semester hours***

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Topics in algebra and probability, polynomial functions, the binomial theorem, logarithms, exponentials, and solutions to systems of equations.

***MATH 1035 Trigonometry: 2 semester hours***

Prerequisite: MATH 1030 or MATH 1040, or concurrent registration in either of these two courses, or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. A study of the trigonometric and inverse trigonometric functions with emphasis on trigonometric identities and equations.

***MATH 1040 College Algebra for Science and Engineering: 4 semester hours***

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Topics in this course include factoring, simplifying rational functions, functions and their graphs, solving linear and nonlinear equations, polynomial functions, inverse functions, the binomial theorem, logarithms, exponentials, solutions to systems of equations using matrices, solutions to nonlinear systems of equations, and sequences.



**MATH 1100 Basic Calculus: 3 semester hours**

Prerequisite: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Placement Examination, obtained at most one year prior to enrollment in this course. Introduction to plane analytic geometry and basic differential and integral calculus with applications to various areas. No credit for Mathematics majors. Credit not granted for both MATH 1800 and MATH 1100.

**MATH 1102 Finite Mathematics: 3 semester hours**

Prerequisites: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Introductory logic and set theory, partitions and counting problems, elementary probability theory, stochastic processes, Markov chains, vectors and matrices, linear programming, and game theory.

**MATH 1105 Basic Probability And Statistics: 3 semester hours**

Prerequisites: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. An introduction to probability and statistics. Topics include the concept of probability and its properties, descriptive statistics, discrete and continuous random variables, expected value, distribution functions, the central limit theorem, random sampling and sampling distributions. Credit not granted for more than one of MATH 1310, MATH 1320, and MATH 1105.

**MATH 1150 Structure Of Mathematical Systems I: 3 semester hours**

Prerequisites: 45 hours of college credit and a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course OR successful completion of MATH 1030 no more than 2 years prior to enrollment in this course. A study of sets, relations, functions, whole numbers; the integers and their properties, and the rational and real number systems.

**MATH 1310 Elementary Statistical Methods: 3 semester hours**

Prerequisite: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. An introduction to the basic tools and elementary methods of statistics, such as testing of hypotheses, analysis of variance, method of least squares, and time series. A student may not receive credit for more than one of MATH 1310, MATH 1320, and MATH 1105.

**MATH 1320 Applied Statistics I: 3 semester hours**

Prerequisites: MATH 1800 or MATH 1100. This is the first course of a one-year sequence in introductory probability and statistics. It provides a comprehensive introduction to those models and methods which are most likely to be encountered by students in their careers in applied mathematics and the sciences. Topics include descriptive statistics, basics of probability theory, random variables and their distributions, sampling distributions, confidence intervals, and hypothesis testing for population means and population proportions. A student may not receive credit for more than one of MATH 1310, MATH 1320 and MATH 1105.

**MATH 1800 Analytic Geometry And Calculus I: 5 semester hours**

Prerequisites: MATH 1030 and MATH 1035, or MATH 1040 and MATH 1035, or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. This course provides an introduction to differential and integral calculus. Topics include limits, derivatives, related rates, Newton's method, the Mean-Value Theorem, Max-Min problems, the integral, the Fundamental Theorem of Integral Calculus, areas, volumes, and average values.

**MATH 1900 Analytic Geometry And Calculus II: 5 semester hours**

Prerequisite: MATH 1800. Topics include conic sections, rotation of axes, polar coordinates, exponential and logarithmic functions, inverse (trigonometric) functions, integration techniques, applications of the integral (including mass, moments, arc length, and hydrostatic pressure), parametric equations, infinite series, power and Taylor series.

**MATH 2000 Analytic Geometry And Calculus III: 5 semester hours**

Prerequisite: MATH 1900 Topics include vectors, cylindrical and spherical coordinates, vector-valued functions, arc length and curvature, functions of several variables, partial and directional derivatives, gradients, extrema, Lagrange multipliers, multiple integrals, change of variables, surface area, vector fields, Stokes' Theorem.

**MATH 2020 Introduction To Differential Equations: 3 semester hours**

Prerequisite: MATH 2000. Topics will be chosen from: linear differential equations, equations with constant coefficients, laplace transforms, power series solutions, systems of ordinary differential equations.

**MATH 2450 Elementary Linear Algebra: 3 semester hours**

Prerequisite: MATH 1100 or MATH 1900. An introduction to linear algebra. Topics will include complex numbers, geometric vectors in two and three dimensions and their linear transformations, the algebra of matrices, determinants, solutions of systems of equations, eigenvalues and eigenvectors.

**MATH 2510 Structure Of Mathematical Systems II: 3 semester hours**

Prerequisite: MATH 1150. An introduction to probability and statistics. An intuitive study of elementary geometry. Introduction to the deductive theory of geometry and to coordinate geometry.

**MATH 3000 Discrete Structures: 3 semester hours**

Prerequisites: MATH 1900 or MATH 1100, and CMP SCI 1250 or equivalent. Treats fundamental ideas in discrete structures and serves as a foundation for subsequent courses in both Mathematics and Computer Science. Provides an introduction to techniques of mathematical reasoning with examples derived from computer science. Topics include logic, set algebra, equivalence relations and partitions, functions, mathematical induction, elementary number theory, cardinality, recurrence relations, basic combinatorial methods, trees and graphs. Credit not granted for more than one of CMP SCI 3000, and MATH 3000.

**MATH 3100 Problem Solving In Mathematics: 1 semester hour**

Prerequisite: MATH 2000 Course will train students to solve and write solutions to challenging mathematical problems, like those found in competitive exams like the Putnam Exam.

**MATH 3520 Structure Of Mathematical Systems III: 3 semester hours**

Prerequisite: MATH 2510 Together with MATH 1150 and MATH 2510, this course teaches the mathematics necessary for middle school mathematics certification. Topics from MATH 1150 and MATH 2510 are continued. Other topics include geometric constructions, similarity, coordinate geometry, normal distribution, combinatorics, and trigonometry.

**MATH 4010 Financial Mathematics I: 3 semester hours**

Prerequisites: MATH 1900 or MATH 1100, and MATH 1320 or LOG OM 3300 (or equivalents). An introduction to the theory of interest, annuities (certain), annuities with differing pay periods, amortization schedules and sinking funds.

**MATH 4020 Financial Mathematics II: 3 semester hours**

Prerequisites: MATH 4010. Premium-discount formula for bonds, bond amortization, term structure of interest rates and pricing theory for options.

**MATH 4030 Applied Mathematics I: 3 semester hours**

Prerequisite: MATH 2020 and MATH 2450. Topics chosen from Fourier series, special functions, partial differential equations, and boundary value problems.

**MATH 4060 Applied Differential Equations: 3 semester hours**

Prerequisites: MATH 2020 and MATH 2450 The study of ordinary differential equations and partial differential equations is continued with applications in such areas as physics, engineering and biology.

**MATH 4100 Real Analysis I: 3 semester hours**

Prerequisites: MATH 2000 and MATH 3000. Introduction to real analysis in one variable. Topics include the real number system, limits, continuity, differentiability, and sequences and series of functions.

**MATH 4160 Complex Analysis I: 3 semester hours**

Prerequisites: MATH 2020 or both MATH 3000 and MATH 2000. Complex numbers and their geometrical representation, point sets, analytic functions of a complex variable, complex integration, Taylor and Laurent series, residue theorem, conformal mapping.

**MATH 4200 Mathematical Statistics I: 3 semester hours**

Prerequisites: MATH 1320 and MATH 2000. Introduction to the theory of probability and statistics using concepts and methods of calculus.

**MATH 4210 Mathematical Statistics II: 3 semester hours**

Prerequisites: MATH 4200. Continuation of MATH 4200. Sampling distributions, estimation theory, properties of estimators, hypothesis testing, Neyman-Pearson Theorem, likelihood ratio tests, introduction of analysis of variance and linear models. Basics of some nonparametric procedures.

**MATH 4230 Numerical Analysis I: 3 semester hours**

Prerequisites: MATH 2020, MATH 2450, and the ability to program in an upper-level language Solutions of equations, interpolation and approximation numerical differentiation and integration, and numerical solutions of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers.

**MATH 4260 Introduction To Stochastic Processes: 3 semester hours**

Prerequisites: MATH 4200 Basic theory and applications of stochastic processes. Markov chains, recurrent and transient states, stationary distributions, ergodic theorem, renewal processes, discrete martingales and stationary processes.

**MATH 4350 Theory Of Numbers: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of instructor Properties of integers, multiplicative functions, congruences, primitive roots, and quadratic residues.

**MATH 4390 Topics In Probability And Statistics: 3 semester hours**

Prerequisites: Consent of Instructor. A seminar on special topics in probability and statistics to be determined by the interests of the instructor. May be repeated for credit provided different topics are studied.

**MATH 4400 Introduction To Abstract Algebra I: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department Introduction to groups, rings, and fields, with emphasis on groups and rings.

**MATH 4450 Linear Algebra: 3 semester hours**

Prerequisites: MATH 3000, MATH 2000 and MATH 2450. Topics selected from vector spaces, bases, linear transformations, matrices, canonical forms, eigenvalues, hermitian and unitary matrices, inner product spaces, and quadratic forms.

**MATH 4500 Special Readings: 1-10 semester hours**

Prerequisites: MATH 3000, MATH 2000 and consent of instructor.

**MATH 4550 Combinatorics: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000. Advanced counting methods are introduced, including the use of generating functions for the solution of recurrences and difference equations. Additional topics may include: graphs and trees, combinatorial designs, combinatorial games, error-correcting codes, and finite-state machines.

**MATH 4660 Foundations Of Geometry: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department A development of portions of Euclidean geometry from a selected set of axioms, including a discussion of consistency, independence, categoricity, and completeness of the axioms.

**MATH 4670 Introduction To Non-Euclidean Geometry: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department A summary of the history of the non-Euclidean geometries and a study of hyperbolic plane geometry.

**MATH 4800 Introduction To Topology: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department A study of topological spaces, including the concepts of limit, continuity, connectedness, compactness, etc. Special emphasis placed on, and examples taken from, the space of real numbers.

**MATH 4890 Topics In Mathematics: 3 semester hours**

Prerequisite: Consent of Instructor.

**MATH 5060 Computational Harmonic Analysis: 3 semester hours**

Prerequisites: MATH 4030, MATH 4100 and MATH 4450 The course covers the basics of Fourier analysis and wavelet analysis. Topics include Fourier transforms and series, discrete Fourier transform, discrete cosine transform and their fast computational schemes, fast wavelet transform, and the lifting scheme. Additional topics include industrial standards for image compression and several aspects of signal processing.

**MATH 5100 Real Analysis II: 3 semester hours**

Prerequisites: MATH 4100 Introduction to measure and integration. Topics include the Riemann-Stieltjes integral, Lebesgue measure, measurable functions, the Lebesgue integral, Radon-Nikodym and Fubini theorems and the basics of  $L_p$ -spaces.

**MATH 5110 Differentiable Manifolds: 3 semester hours**

Prerequisites: MATH 4100, MATH 4450, and MATH 4800. An introduction to smooth manifolds and maps. Topics will include the Implicit Function Theorem, Sard's Theorem, transversality, intersection and degree theory, differential forms and integration on manifolds.

**MATH 5140 Set Theory And Metric Spaces: 3 semester hours**

Prerequisites: MATH 4100 or consent of instructor. Naive set theory, cardinal arithmetic, ordinal numbers, the axiom of choice and equivalents, metric spaces, convergence, continuity, compactness, contraction principals and applications. Construction of completions and examples like real numbers and  $p$ -adic numbers. Other topics could include the Stone-Weierstrass theorem and metrization theorems.

**MATH 5160 Complex Analysis II: 3 semester hours**

Prerequisites: MATH 4160 and either MATH 4100 or MATH 4800. A second course in complex analysis, emphasizing the theory of analytic functions, and including various topics like the Riemann mapping theorem, normal families, analytic continuation, representations of analytic functions, and elliptic functions.

**MATH 5320 Applied Statistics: 3 semester hours**

Prerequisites: MATH 4210 or consent of instructor. The course studies classical and recently developed statistical procedures selected from areas including analysis of variance, multivariate analysis, nonparametric or semi-parametric methods and generalized linear models. Emphasis is on application of procedures, including the rationale underlying choice of procedures.

**MATH 5500 Directed Readings: 1-6 semester hours**

Prerequisite: Consent of instructor. Independent readings at an advanced level.

**MATH 5550 Topics In Advanced Math For The Teacher: 3 semester hours**

Prerequisite: Consent of Instructor. This course will look at various topics in Algebra, Analysis, and Geometry that will deepen a teacher's understanding of the Mathematics of the precollegiate curriculum. It can be taken more than once for credit.

**MATH 5600 Topics In Computation: 3 semester hours**

Prerequisite: consent of instructor. The course will cover various advanced topics in computation, and can be taken more than once for credit. Examples of such topics are: computer graphics, computer architecture, theories of language, analysis of operating systems, numerical geometry and computer aided design, etc.

**MATH 5700 Topics In Applied Mathematics: 3 semester hours**

Prerequisite: consent of instructor. The course will cover various advanced topics on applied mathematics, and can be taken more than once for credit. Examples of such topics are: fast transforms, digital filters, etc.

**MATH 5710 Topics In Analysis: 3 semester hours**

Prerequisites: MATH 5100 or consent of instructor. Topics selected from the areas of Fourier analysis, harmonic analysis, functional analysis, special functions, generalized functions, and partial differential equations. May be taken more than once for credit with consent of department.

**MATH 5820 Topics In Algebra: 3 semester hours**

Prerequisite: Consent of instructor. Topics selected from the theory of groups, rings, fields, algebras and other algebraic systems. May be taken more than once for credit with consent of department.

**MATH 6900 Masters Thesis: 1-6 semester hours**

Prerequisite: Consent of instructor. Thesis work under the supervision of a faculty member. The course is designed for those students intending to present a thesis as part of their M.A. program. Students who do not write a thesis cannot apply MATH 6900 to a degree.

**MATH 7990 Ph.D. Dissertation Research: 1-9 semester hours**

Prerequisites: Completion of Comprehensive. May be taken for no more than nine hours.

## Philosophy

### General Information

Philosophy continues to keep alive the tradition begun by Socrates, Plato, and Aristotle of critically examining one's most cherished assumptions. Moreover, it deals with questions that are common to several areas of inquiry, such as art, ethics, the social sciences, the natural sciences, and the various professions. The study of philosophy also encourages logical precision, a heightened awareness of assumptions used in any discussion, and an attitude of both open-mindedness and responsible criticism toward new and unusual ideas. These skills are particularly useful for students planning careers in law, business, computer science, writing, or other fields requiring such disciplines of mind. For these reasons many students have found it useful to combine a major in another field with a major in

philosophy. To accommodate such students, the department has a special program for double majors.

The philosophy faculty has an unusually wide range of research interests. Faculty members have written books and articles addressing not only the classical and traditional concerns of philosophy, but also contemporary controversies in the fields of law, psychology, sociology, political theory, biology, medical ethics, theology, logic, and philosophy of history as well. For their research in some of these areas, members have been awarded a number of national research grants, including fellowships from the National Science Foundation, the American Council of Learned Societies, and the National Endowment for the Humanities.

In keeping with this emphasis on diversity, the department is represented by scholars trained in widely different approaches to philosophy, such as the analytic tradition, Continental idealism and existentialism, Marxist dialectic, and Asian modes of thought.

## Undergraduate Studies

### General Education Requirements

Majors must meet the university and college general education requirements (p. ). PHIL 1120: Asian Philosophy and PHIL 1125: Islamic Philosophy satisfy the college cultural diversity requirement. Majors may not count philosophy courses taken on a satisfactory/unsatisfactory basis toward the degree requirements.

### Expected Learning Outcomes

- Acquire basic knowledge of traditional philosophical issues in the western tradition.
- Develop critical thinking skills based on knowledge of the standards governing logical reasoning.
- Acquire familiarity with philosophical issues that arise in some other disciplines (e.g. biology, art, education, etc.).
- Acquire a basic understanding of ethical and social-political principles and their role in resolving ethical disputes and in evaluating social practices and institutions.
- Become acquainted with current philosophical debates in the areas of epistemology, metaphysics, and value theory, and with the arguments and proposals made to resolve them.

## Degree Requirements

### Bachelor of Arts in Philosophy

The undergraduate major in philosophy requires 30 hours of philosophy coursework. All majors must complete the general education (<http://bulletin.umsl.edu/generaleducationrequirements>) course requirements. Candidates for the B.A. degree may take any foreign language to meet this requirement. Students with particular interests may choose to structure their major around tracks offered by the department. A minimum of 18 hours including all courses for the major at or above the 3000 level must be taken in residence in the UMSL Department of Philosophy. Philosophy majors must complete all required courses (under Course Requirements) with a grade of "C-" or higher and maintain a 2.0 GPA for all their Philosophy coursework.

### Course Requirements

#### History of Philosophy

Select two of the following:

PHIL 1110	Western Philosophy I: Antiquity To The Renaissance	
or PHIL 3301	Ancient Philosophy	
PHIL 1111	Western Philosophy II: Descartes To The Present	
or PHIL 3303	Early Modern Philosophy	

**Logic**

PHIL 1160	Critical Thinking	3
or PHIL 3360	Formal Logic	

**Normative Philosophy**

Select one of the following: 3

PHIL 1130	Approaches To Ethics	
PHIL 4430	Social And Political Philosophy	
PHIL 4435	Classical Ethical Theory	
PHIL 4438	Recent Ethical Theory	

**Junior Level Requirement**

Select one of the following: 3

Any 3000 level History of Philosophy course not used to satisfy the History of Philosophy Requirement above (PHIL 3301 to PHIL 3307)

PHIL 3374	Philosophy Of Art	
PHIL 3378	Philosophy of Mind	
PHIL 3380	Philosophy Of Science	

**Core Requirement**

PHIL 4440	Theories Of Knowledge	3
or PHIL 4445	Metaphysics	

**Senior Seminar**

PHIL 4491	Senior Seminar	3
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Total Hours 21

**Tracks**

Tracks are ways that the Philosophy major may be completed but they are not mandatory; a student may complete the Philosophy major without following any track. All students on a track must complete the course requirements of the major. Students may use the same course to satisfy the major's course requirements and the requirements of individual tracks but, if they do so, they need to add enough elective courses to reach a total of 30 hours of philosophy coursework.

**Pre-Law**

PHIL 4487	Topics In Philosophy Of Law	3
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Select two of the following: 6

PHIL 2251	Sexual Ethics	
PHIL 2252	Philosophical Foundations Of Criminal Justice	
PHIL 2254	Business Ethics	
PHIL 2255	Environmental Ethics	
PHIL 2256	Bioethics	
PHIL 2258	Medicine, Values, And Society <sup>1</sup>	
PHIL 2283	Markets & Morals	
PHIL 4430	Social And Political Philosophy	
PHIL 4435	Classical Ethical Theory	
PHIL 4437	Metaethics	
PHIL 4438	Recent Ethical Theory	

PHIL 4439	Topics In Ethical Theory	
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Total Hours 9

**Science Studies**

PHIL 3380	Philosophy Of Science	3
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Select two of the following, at most one at the 2000 level: 6

PHIL 2258	Medicine, Values, And Society <sup>1</sup>	
PHIL 2281	Darwinism and the Philosophy of Biology	
PHIL 2282	Philosophy of Science in Historical Perspective	
PHIL 4465	Theory Of Decisions And Games	
PHIL 4479	Philosophy Of Cognitive Science	
PHIL 4480	Topics In Philosophy Of Science	
PHIL 4482	Philosophy Of Social Science	
PHIL 4483	Topics In History And Philosophy Of Science	

Total Hours 9

**Psychology and Neuroscience**

PHIL 3378	Philosophy of Mind	3
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Select two of the following: 6

PHIL 2280	Minds, Brains, And Machines	
PHIL 3380	Philosophy Of Science	
PHIL 4465	Theory Of Decisions And Games	
PHIL 4478	Topics In Philosophy Of Mind	
PHIL 4479	Philosophy Of Cognitive Science	

Total Hours 9

**Ethics and Society**

Select two of the following: 6

PHIL 4430	Social And Political Philosophy	
PHIL 4435	Classical Ethical Theory	
PHIL 4437	Metaethics	
PHIL 4438	Recent Ethical Theory	
PHIL 4439	Topics In Ethical Theory	

Select one of the following: 3

PHIL 2251	Sexual Ethics	
PHIL 2254	Business Ethics	
PHIL 2255	Environmental Ethics	
PHIL 2256	Bioethics	

Total Hours 9

**Health Sciences**

PHIL 2256	Bioethics	3
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Select two of the following: 6

PHIL 2251	Sexual Ethics	
PHIL 2257	Happiness and the Meaning of Life	
PHIL 2258	Medicine, Values, And Society <sup>1</sup>	
PHIL 2280	Minds, Brains, And Machines	
PHIL 4478	Topics In Philosophy Of Mind	
PHIL 4479	Philosophy Of Cognitive Science	

Total Hours 9



## History

Select one of the following: 3

PHIL 3301	Ancient Philosophy
PHIL 3302	Medieval Philosophy
PHIL 4401	Plato
PHIL 4402	Aristotle
PHIL 4410	Topics and Figures in the History of Philosophy (depending upon the historical figure)

Select one of the following: 3

PHIL 3303	Early Modern Philosophy
PHIL 3304	Kant And Nineteenth Century Philosophy
PHIL 4405	Rationalism
PHIL 4406	Empiricism
PHIL 4407	Kant
PHIL 4408	Hegel
PHIL 4410	Topics and Figures in the History of Philosophy (depending upon the historical figure)

Select one of the following or an additional course from one of the above categories: 3

PHIL 2281	Darwinism and the Philosophy of Biology
PHIL 2282	Philosophy of Science in Historical Perspective
PHIL 3305	Twentieth Century Philosophy
PHIL 3307	American Philosophy
PHIL 4421	The Analytic Tradition
PHIL 4435	Classical Ethical Theory
PHIL 4483	Topics In History And Philosophy Of Science

Total Hours 9

<sup>1</sup> For Honors College students.

## Departmental Honors

Majors with a 3.2 or higher grade point average in all courses may, with the department's consent, earn departmental honors by:

1. Taking , Introduction to Formal Logic;
2. Completing at least 3 hours of PHIL 4450, Special Readings in Philosophy;
3. Submitting an acceptable thesis before the end of the senior year.

## Philosophy as Part of a Double Major

Consider combining your philosophy major with another major. Philosophy trains students in basic, portable skills such as thinking independently and creatively, analyzing and constructing arguments, communicating clearly and persuasively, and considering multiple viewpoints. So philosophy naturally complements virtually every other field.

## Minor in Philosophy

The undergraduate minor in philosophy requires any five philosophy courses, at least three of which must be taken at the 3000 level or higher. Students with particular interests are encouraged to use the tracks above to organize their minor. At least 6 hours of course work for the minor at the 2000 level or higher must be taken in residence in the UMSL Department of Philosophy.

A GPA of 2.0 or better is required in courses presented for the minor. Prospective minors are encouraged to consult with members of the department for advice in planning an appropriate sequence of courses.

## Bachelor of Liberal Studies

Build a bridge to some other discipline by combining a minor in philosophy with a minor in that second field to get a Bachelor of Liberal Studies. For more information, please go to the Interdisciplinary Studies (p. 169) program page.

## Philosophy of Science and Technology Minor (PST)

The Minor in Philosophy of Science and Technology (PST) is an interdisciplinary program requiring a minimum of 18 credits in PST.

All required courses must be completed with a "C" or higher. The satisfactory/unsatisfactory option may not be used. No transfer courses may be used towards the PST Minor. A minimum of 12 hours must be taken at 2000 and above with 9 of those hours being at 3000 or above. Courses in the upper division may satisfy requirements for the student's major, consistently with the major's requirements.

## Requirements

### Math

Select one of the following courses in either statistics or calculus: 3

BIOL 4122 (p. 197)	Biometry
ECON 3100 (p. 197)	Economic Statistics
MATH 1320 (p. 197)	Applied Statistics I
MATH 1800 (p. 197)	Analytic Geometry And Calculus I
PSYCH 2201 (p. 197)	Psychological Statistics
SOC 3220 (p. 197)	Social Statistics

### Logic and Methodology

Select one of the following courses in either logic or methodology: 3

ANTHRO 4308 (p. 197)	Practicum In Cultural Research Methods
ANTHRO 4310 (p. 197)	Laboratory Methods In Archaeology
HIST 2999 (p. 197)	Introduction to Historical Inquiry
PHIL 3360 (p. 197)	Formal Logic
PHIL 4460 (p. 197)	Advanced Formal Logic
PSYCH 2219 (p. 197)	Research Methods
SOC 3230 (p. 197)	Research Methods

### Philosophy

PHIL 3380 (p. 197)	Philosophy Of Science	3
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Select one of the following in the philosophy of science and technology:	3
PHIL 2280 (p. Minds, Brains, And Machines 197)	
PHIL 2281 (p. Darwinism and the Philosophy of Biology 197)	
PHIL 2282 (p. Philosophy of Science in Historical Perspectivte 197)	
PHIL 3380 (p. Philosophy Of Science 197)	
PHIL 4452 (p. Feminism And Science 197)	
PHIL 4479 (p. Philosophy Of Cognitive Science 197)	
PHIL 4480 (p. Topics In Philosophy Of Science 197)	
PHIL 4482 (p. Philosophy Of Social Science 197)	
PHIL 4483 (p. Topics In History And Philosophy Of Science 197)	
PSYCH 3400 (p. 197) Conceptual and Historical Foundations of Psychology	

**Science**

Select 6 credit in the mathematical, physical, life, behavioral, or social sciences.<sup>1</sup> 6

Total Hours 18

<sup>1</sup> The science courses must be in addition to those satisfying the Gen Ed requirements and conditional upon their acceptance by the PST undergraduate advisor.

**Prerequisites**

Some courses required by the Minor in PST have prerequisites. Some students may satisfy prerequisites by virtue of their prior curriculum. When this is not the case, students are responsible for either satisfying the prerequisites by adding courses to their curriculum or obtaining a waiver from the instructor.

**Alternative courses to satisfy the Philosophy requirements**

Some courses may satisfy the Philosophy requirement even though they are not listed as such depending on their content. These include variable content courses, courses at the Honors College, history of philosophy courses, and courses in metaphysics. If a course that deals with some aspect of PST and should satisfy a requirement is not listed among those satisfying the requirements, you may do the following:

1. Obtain the description of what the course will cover.
2. Write a very short explanation of why the course ought to count toward satisfaction of the requirement, by showing how it deals with the relevant aspect of PST.
3. Submit both to the PST undergraduate advisor for approval.

**Bachelor of Liberal Studies Option:**

A minor in PST may be combined with a minor in the History of Science and Technology and a capstone to form a Bachelor of Liberal Studies. The relevant capstones are either or HIST 4999. Since students taking

must have taken HIST 2999, it is suggested such students use to satisfy the Logic and Methodology requirement. Students can use the same course to satisfy the Logic and Methodology requirement of both minors, but cannot use the same science courses. Also, students that pursue the Bachelor of Liberal studies combining these two minors must pursue at least one science at an advanced level. Such a Liberal Studies program is easily combined, in turn, with a major in any science as a double major. This provides the student with a deeper historical and conceptual understanding of the science(s) he or she is studying.

**Certificate of History and Philosophy of Science and Technology**

The undergraduate Certificate Program in History and Philosophy of Science and Technology (HPST) is an interdisciplinary program requiring a minimum of 18 credits in HPST.

All required courses must be completed with a "C-" or higher. The satisfactory/unsatisfactory option may not be used towards the HPST Certificate. A minimum of 12 hours must be taken at 2000 or above with 9 of those hours being at 3000 or above. Courses in the upper division (3000 level and above) may satisfy requirements for the student's major, consistently with the major's requirements.

**Requirements****History**

Select two of the following in History of Science and Technology:	6
ECON 3800 History Of Economic Thought	
HIST 2089 Religion, Philosophy & Science in History: Introduction to The Intellectual History Of The West	
HIST 2770 Introduction To Transportation	
HIST 2772 History Of Aviation In American Life	
HIST 2773 Urbanization And Transportation	
HIST 4143 Inquiries in World History	
PHIL 4483 Topics In History And Philosophy Of Science	
PSYCH 3400 Conceptual and Historical Foundations of Psychology	

**Philosophy**

PHIL 3380 Philosophy Of Science	3
Select one of the following courses in the philosophy of science:	3
PHIL 2280 Minds, Brains, And Machines	
PHIL 2281 Darwinism and the Philosophy of Biology	
PHIL 2282 Philosophy of Science in Historical Perspectivte	
PHIL 3380 Philosophy Of Science	
PHIL 4452 Feminism And Science	
PHIL 4479 Philosophy Of Cognitive Science	
PHIL 4480 Topics In Philosophy Of Science	
PHIL 4482 Philosophy Of Social Science	
PHIL 4483 Topics In History And Philosophy Of Science	
PSYCH 3400 Conceptual and Historical Foundations of Psychology	

**Science**

Select two courses in the mathematical, physical, life, behavioral, or social sciences.<sup>2</sup> 6

Total Hours 18

- Note: HIST 4143 is offered under different topics; only the specific topics listed here counts as HPST.
- The science courses must be in addition to those satisfying the Gen Ed requirements (for students pursuing a degree at UM-St. Louis) and conditional upon their acceptance by the HPST Certificate Undergraduate advisor

## Prerequisites

Some courses required by the Certificate Program in HPST have prerequisites. Some students may satisfy prerequisites by virtue of their prior curriculum. When this is not the case, students are responsible for either satisfying the prerequisites by adding courses to their curriculum or obtaining a waiver from the instructor.

## Alternative courses to satisfy the History and Philosophy requirements

Some courses may satisfy either the History or the Philosophy requirement even though they are not listed as such, depending on what their content is. These include but are not limited to variable content courses, courses at the Honors College, history of philosophy courses, and courses in metaphysics. If a course that deals with some aspect of HPST and should satisfy a requirement is not listed among those satisfying the requirements, you may do the following:

- Obtain the description of what the course will cover.
- Write a very short explanation of why the course ought to count toward satisfaction of the requirement, by showing how it deals with the relevant aspect of HPST.
- Submit both to the HPST undergraduate advisor for approval.

## Certificate in Neuroscience

The undergraduate Certificate Program in Neuroscience is an interdisciplinary program requiring 20 credits of training in Neuroscience. The Program provides a group of related courses capped by a research experience. The Program is likely to be of particular interest to students who want to pursue graduate or professional training, but it is intended to appeal to any student interested in Neuroscience.

Courses taken for the certificate in the lower division (1000 and 2000 level) may satisfy general education requirements (that is, breadth requirements), if they are approved general education courses. Courses in the upper division (3000 level and above) may satisfy requirements for the student's major, consistently with the major's requirements. All required courses must be completed with a "B-" average or higher. Pass/Fail grades to not count.

Most courses required by the Certificate Program in Neuroscience have prerequisites. Some students may satisfy prerequisites by virtue of their prior curriculum. When this is not the case, students are responsible for satisfying the prerequisites.

## Requirements

### The two entry level courses

BIOL 1831	Introductory Biology: From Molecules To Organisms	5
PSYCH 2211	Introduction To Biological Psychology	3
Select one of the following statistics courses:		3
BIOL 4122	Biometry	

MATH 1320	Applied Statistics I	
PSYCH 2201	Psychological Statistics	
SOC 3220	Social Statistics	
<b>Electives</b>		
Select two of the following: <sup>1</sup>		6
BIOL 3102	Animal Behavior	
BIOL 4822	Introduction To Neuroscience	
CHEM 4712	Biochemistry	
CMP SCI 4300	Introduction To Artificial Intelligence	
CMP SCI 4340	Introduction to Machine Learning	
PHIL 2280	Minds, Brains, And Machines	
PHIL 3378	Philosophy of Mind	
PHIL 4478	Topics In Philosophy Of Mind	
PHIL 4479	Philosophy Of Cognitive Science	
PHYSICS 4347	Biophysics Of Imaging	
PSYCH 4300	Introduction To Psychopharmacology: Drugs And Mental Illness	
PSYCH 4314	Behavioral Neuroscience	
PSYCH 4330	Hormones, The Brain And Behavior	
PSYCH 4349	Human Learning And Memory	
Select at least 3 credits from two semesters of research experience <sup>2</sup>		3
BIOL 4905	Research	
CHEM 3905	Chemical Research	
CMP SCI 4880	Individual Studies	
PHIL 4450	Special Readings In Philosophy	
PHYSICS 3390	Research	
PSYCH 3390	Directed Studies	
Total Hours		20

- At least one elective must be taken outside the student's major
- This requires completion of a Directed Research Assistantship with a Neuroscience faculty member within any of the participating departments. The research project must be approved in advance by the undergraduate advisor with the assistance of a committee of Neuroscience faculty. It is expected that this research will lead to a presentation at the UM-St. Louis Neuroscience seminar and the Undergraduate Research Symposium.

## Graduate Studies

### Expected Learning Outcomes

- Acquire advanced knowledge of traditional philosophical issues in the western tradition.
- Develop critical thinking skills based on knowledge of the standards governing logical reasoning.
- Acquire familiarity with philosophical issues that arise in some other disciplines (e.g. biology, art, education, etc.).
- Acquire a basic understanding of ethical principles and their role in resolving ethical disputes.
- Acquire the knowledge and skills required to write a paper identifying a philosophical issue and presenting arguments supporting a thesis for resolving it.

## Master of Arts in Philosophy

To earn a M.A. in philosophy, students must complete at least 30 hours of graduate-level course work. In addition, students must write a thesis, for which they must take three to six credit hours of Thesis Research. Entering students must demonstrate a competence in logic, either by having passed the relevant course prior to admission or by taking PHIL 5561 (p. 197): Graduate Formal Logic here at UMSL. Students should take PHIL 5400 (p. 197): Proseminar in Philosophy in the first year of residency. At least two-thirds of the course work must be completed in residence at UMSL. In addition, the courses taken are subject to two distribution requirements:

1. At least half of the courses must be at the 5000 level.
2. Two courses (6 credit hours) must be chosen from each of the following four subject areas:
  - Value Theory
  - History of Philosophy
  - Logic/Philosophy of Science
  - Epistemology/Metaphysics

## 2+3 B.A. and M.A. in Philosophy

The Combined B.A./M.A. Program in Philosophy provides an opportunity for students of recognized academic ability and educational maturity to fulfill integrated requirements of undergraduate and master's degree programs in three years from the beginning of their junior year. When all the requirements of the B.A./M.A. program have been completed, students will be awarded both the B.A. and M.A. degrees. With a carefully designed program, a student can earn both degrees within as few as ten semesters.

The Combined Program requires a minimum of 138 credit hours, of which at least 30 must be at the upper division level course numbers in the 4000-5999 range (excluding PHIL 5495 (p. 197)). In qualifying for the B.A., students must meet all university and college requirements, including all the requirements of the regular undergraduate major in philosophy described above. Students will normally take PHIL 3360 (p. 197): Formal Logic and two courses in the 3301-3307: History of Philosophy sequence in their junior years, along with electives. Any courses still needed to satisfy college foreign language and expository writing requirements would also be taken during this year. PHIL 4491 (p. 197): Senior Seminar and more specialized courses are taken in the senior year. In the fifth year, students take advanced electives and such required courses as are needed to fulfill remaining university, Graduate School, and departmental requirements for the M.A. This includes satisfactory completion of 30 graduate credit hours, at least 18 of which must be in courses numbered above 5000 and among which must be at least three in each of the four subject areas listed for the regular M.A. program, and one of which must be PHIL 5400 (p. 197): Proseminar in Philosophy. Up to 12 graduate credit hours may be applied simultaneously to both the B.A. and M.A. requirements. In addition to the above coursework, students must also write a thesis, in which case at least three hours must be taken in PHIL 5495 (p. 197). Students should apply to the Graduate Committee for admission to the Combined B.A./M.A. Program in Philosophy the semester they will complete sixty undergraduate credit hours or as soon thereafter as possible. It is also recommended that students complete the foreign language requirement and the junior-level writing requirement before applying. A cumulative grade point average of 3.0 or higher and three letters of recommendation from faculty are required for consideration.

Students should apply to the Graduate Committee for admission to the Combined B.A./M.A. Program in Philosophy the semester they will complete sixty undergraduate credit hours or as soon thereafter as possible. It is also recommended that students complete the foreign language requirement and the junior-level writing requirement before applying. A cumulative grade point average of 3.0 or higher and three letters of recommendation from faculty are required for consideration.

Students will be admitted to the Combined Program under provisional status until they have completed fifteen credit hours in it with a grade point average of 3.0 or higher. After the completion of the provisional period, and with the recommendation of the Graduate Committee, students can be granted full admission into the program. Students must maintain a grade point average of 3.0 or higher throughout the Combined Program. Students who officially withdraw from the Combined Program who have successfully completed all the requirements for the B.A. degrees will be awarded the B.A. degree.

## Philosophy Requirements for Students in the 2+3 Program

1. To be taken in the junior year:  
Select four courses (12 credit hours) from the following:
  - a. PHIL 3360 (p. 197): Formal Logic
  - b. Two courses in the History of Philosophy, each at the 2000 level or above.
  - c. One additional Philosophy course, at the 2000 level or above.
2. To be taken in the senior year:
3. PHIL 4491 (p. 197): Senior Seminar 3

PHIL 4445 (p. 197): Metaphysics	3
or PHIL 4440 (p. 197): Theories Of Knowledge	
Two History courses, each at the upper division	6
One course from the PHIL 4470 (p. 197)-PHIL 4487 (p. 197) sequence	3
Select one of the following:	3
PHIL 4430 (p. 197): Social And Political Philosophy	
PHIL 4435 (p. 197): Classical Ethical Theory	
PHIL 4438 (p. 197): Recent Ethical Theory	
Total Hours	18
4. To be taken in the final year of the program:  
Six courses (18 credit hours)
  - a. At least five of these courses must be at or above the 5000 level.
  - b. Courses must be selected so that the student has taken at least one and preferably two courses from each of the four subject areas in the course of completing the 2 + 3 program:
    - Value Theory
    - History of Philosophy



- Logic/Philosophy of Science
- Epistemology/Metaphysics

c. PHIL 5400 (p. 197): Proseminar in Philosophy

## Cooperative arrangement with Saint Louis University.

The strengths of the UMSL Department of Philosophy are complemented by those of the Saint Louis University Philosophy Department, which has strengths in the history of philosophy as well as in philosophy of religion. To enhance students' opportunities for instruction and expertise, the two departments have worked out a cooperative arrangement that permits graduate philosophy students on each campus to take up to four courses at the partner institution. In any given semester, UMSL graduate students must take at least half of their courses at their home institution. Students admitted to the M.A. program on a probationary basis must take all their courses at UMSL during their first semester.

## Sample Four Year Plan

First Year			
Fall	Hours	Spring	Hours
INTDSC 1003 <sup>1</sup>		1 General Education	12
PHIL 1000+ level course		3 PHIL 1000+ level course	3
ENGL 1100		3	
General Education <sup>2</sup>		6	
MATH 1030		3	
		<b>16</b>	<b>15</b>
Second Year			
Fall	Hours	Spring	Hours
Foreign Language 1001		5 PHIL 3360	3
General Education		8 Foreign Language 1002	5
PHIL 2000+ level course		3 General Education	6
		<b>16</b>	<b>14</b>
Third Year			
Fall	Hours	Spring	Hours
PHIL 3301-3307 course		3 PHIL 3301-3307 course	3
ENGL 3100		3 2000+ level elective or minor	9
Foreign Language 2101		3 General Education	3
General Education		6	
		<b>15</b>	<b>15</b>
Fourth Year			
Fall	Hours	Spring	Hours
PHIL 4401-4422 course		3 PHIL 4401-4422 course	3
PHIL 4430, 4435, 4438, or 4474		3 PHIL 4440 or 4445	3
PHIL 4470-4490 course		3 PHIL 4491	3
Elective or minor		6 Elective or minor	6
		<b>15</b>	<b>15</b>

Total Hours: 121

- 1 INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.
- 2 The general education courses listed assumes the U.S. History/Government requirement is fulfilled with a Social/Behavioral Science or Humanities general education course.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Courses

### PHIL 1021 Choice and Chance: 3 semester hours

Prerequisites: A score of 22 or higher on the ACT Math sub-test; or a grade of C or better in a two- or four-year college intermediate algebra course; or a satisfactory score on the UMSL Math Placement Examination, obtained at most one year prior to enrollment in this course. Same as MATH 1021. This course provides an introduction to inductive logic and the theory of probability in an organized and systematic way, so as to give students tools for more effective decision-making. We will introduce the probability calculus, basic concepts of utility theory, decision theory and different approaches to understanding probability. This course is designed to be accessible to students of all levels. Satisfies mathematics proficiency.

### PHIL 1030 Present Moral Problems: 3 semester hours

This course will explore a range of ethical dilemmas with an eye towards living the best life. How should I live? What actions are right and wrong? How should I treat myself and others? In this class, we will consider these and other issues by investigating practical problems in daily life including: human rights, the environment, hunger and poverty, war and violence, racial and ethnic discrimination, gender roles and marriage, abortion, and euthanasia,.

### PHIL 1050 Existentialism and Phenomenology: 3 semester hours

The course will study major works by the major philosophers in the existential and phenomenological traditions. Topics will include what it means to live an authentic life, the structure and content of conscious experience, the construction of the social arena, and what it means to live in a society.

### PHIL 1090 Philosophy Looks at the Arts: 3 semester hours

This online course will explore the distinct resources of various arts - the raw materials of each, what each can represent, express, convey - and key differences among them. After an introductory unit devoted to art in general, the course will present eight units examining the arts of painting, photography, sculpture, architecture, music, literature, drama, and film. The course will employ a variety of instructional materials. These include posted essays, streaming video, readings from an assigned text, and participation on an interface discussion board.

### PHIL 1091 Great Philosophers: 3 semester hours

This online course introduces philosophy through a survey and examination of the ideas of fifteen of the most important figures in the history of the subject. From Socrates to Nietzsche, the questions, answers, and lives of the great philosophers are explored in a multimedia context. This course does not satisfy any of the requirements for philosophy major or minor.

**PHIL 1110 Western Philosophy I: Antiquity To The Renaissance: 3 semester hours**

Lectures and discussions tracing the development of western philosophy from its beginnings among the pre-Socratics through the Middle Ages and Renaissance. Philosophical ideas will be examined in the cultural and historical context: the Greek city-state, the rise of Christianity, etc.

**PHIL 1111 Western Philosophy II: Descartes To The Present: 3 semester hours**

Lectures and discussions on the development of western philosophy from Descartes (1596-1650) to the present. Philosophical ideas will be examined with an eye to their historical and cultural setting: the rise of modern science, the industrial revolution, the rise of capitalism, etc.

**PHIL 1120 Asian Philosophy: 3 semester hours**

Critical study of selected philosophical classics of India and China.

**PHIL 1125 Islamic Philosophy: 3 semester hours**

An introduction to arabic philosophy in the islamic classical period (roughly from the mid-ninth through the twelfth centuries). We consider the philosophical and theological background, and then examine the thought of such notable Islamic philosophers as al-Kindi, Ibn Sina, al-Ghazali, and Ibn Rushd. Topics treated typically include proofs for the existence of God, whether the world is eternal or had a beginning, the nature of the soul and whether it is immortal, and the distinction between essence and existence. This course fulfills the cultural diversity requirement.

**PHIL 1130 Approaches To Ethics: 3 semester hours**

A study and discussion of representative topics in moral philosophy such as moral skepticism, moral objectivity, theories of obligation and value, evaluation of social institutions and the relation between morality and science. Traditional and contemporary writers will be considered.

**PHIL 1150 Introduction to Philosophy: 3 semester hours**

A study and discussion of representative topics in philosophy such as free will and determinism, concepts of mind and body, the basis of value judgments, knowledge and belief, and the possibility of constructing a world view.

**PHIL 1151 Love 101: 3 semester hours**

A critical review of what media personalities, philosophers, criminal justice experts, medical experts, neuroscientists, and psychologists have said about love and its place in our lives. Included will be such topics as the neuroscience of love, love across culture, love and commitment issues, marriage and the "seven-year itch," jealousy, domestic violence, and verbal abuse. Larger questions will include the role of love in the good life; the ethics of love; the psychological consequences of obsession, breakups and divorce; arranged marriages vs. freely chosen love; and the morality of laws that affect relationships between loving partners.

**PHIL 1160 Critical Thinking: 3 semester hours**

An introduction to the language and logical structure of arguments, the principles of sound reasoning, and application of these principles in a variety of contexts.

**PHIL 1163 Disagreement, Difference, Diversity: 6 semester hours**

Same as ANTHRO 1163. This interdisciplinary course will combine material from philosophy, anthropology, and sociology to examine the ways we encounter and accommodate disagreement in our daily lives. The unifying thread is our ability to deal with various sorts of opposition: differences of opinion, differences in practice, and differences in how we construct and address both biological and cultural variation. The course will combine units on informal logic and applied ethics from philosophy together with units on the social construction of difference and the understanding of human diversity from anthropology and sociology. This course will be worth 6 SCHs.

**PHIL 1178 Superhuman Mind: 3 semester hours**

As a study of people with special neurological talents, this course will look at cases of people who became geniuses by accident, human echolocation (deaf people who can detect sound), lucid dreaming, telepathy used to solve crimes, and more.

**PHIL 1180 Science vs. God: 3 semester hours**

This course examines whether religion and science are compatible, discusses the science-religion debate historically, and broaches philosophical issues surrounding belief, especially whether belief should be based in empirical evidence or in faith. Following these introductory course sessions, the class will discuss, in detail, topics in science and religion, including creation versus evolution; human nature (including abortion and stem cell research); the nature of sexuality and gender; the science of religion; morality; the environment from a religious perspective; meaningfulness in the universe; and finally, evidence for or against the afterlife, existence of a divinity, and divine providence.

**PHIL 1185 Philosophy Of Religion: 3 semester hours**

A philosophical investigation of such problems as the nature of religious faith and experience, the relation of faith and reason, alternative concepts of deity and the problem of evil.

**PHIL 2249 Accounting Ethics: 3 semester hours**

The course is a study of moral problems as they relate to the profession of accounting. We will analyze a number of major cases (Enron, HealthSouth, etc.) in which accounting lapses were involved, and we will look at general moral theories which might illuminate these problems. A major component of the course work will be writing essays which address specific moral dilemmas which have arisen or might arise for accountants. The course is primarily online, but there will be five required 75-minute class meetings spread through the semester.

**PHIL 2250 Philosophy And Current Issues: 3 semester hours**

A careful examination of such current social controversies as women's liberation, the ethics of abortion, public accountability of holders of high offices, and the subtler forms of racism and other prejudices. Although there is no formal prerequisite, it is recommended that students have taken, or be concurrently enrolled in, at least one other philosophy course.

**PHIL 2251 Sexual Ethics: 3 semester hours**

A critical review of what philosophers, both classical and contemporary, have said about sexual experience and its place in our lives. Included will be such topics as sexual desire, sexual perversion, love and commitment, marriage and adultery, larger questions might include that role of sexual experience in the good life, issues of sexual privacy, and the morality of laws which regulate sexual activity.

**PHIL 2252 Philosophical Foundations Of Criminal Justice: 3 semester hours**

Same as CRIMIN 2252. This course will address fundamental conceptual and ethical issues that arise in the context of the legal system. Questions may include: How does punishment differ from pre-trial detention? How, if at all, can it be justified? Is the death penalty ever justified? When is it morally permissible for juries to acquit defendants who are legally guilty? Is plea bargaining unjust? why might people be morally obligated to obey the laws? Are laws restricting civil liberty (e.g. laws against abortion, homosexuality, or drug use) permissible?

**PHIL 2253 Philosophy And Feminism: 3 semester hours**

Same as GS 2253 A critical examination of what various philosophers have said about issues of concern to women. Sample topics include oppression, racism, women's nature, femininity, marriage, motherhood, sexuality, pornography, the ethics of care.

**PHIL 2254 Business Ethics: 3 semester hours**

A critical survey from the perspective of moral theory of businesses and business practices. Topics vary but usually include some of the following: Whether the sole moral obligation of businesses is to make money; whether certain standard business practices, e.g., the creation of wants through advertising, are moral; whether businesses ought to be compelled, e.g., to protect the environment or participate in affirmative action programs.

**PHIL 2255 Environmental Ethics: 3 semester hours**

Examines such issues as the value of wilderness, our duties to animals and the natural world, pollution and development, environmental justice.

**PHIL 2256 Bioethics: 3 semester hours**

Same as GERON 2256. An examination of ethical issues in health care practice and clinical research and in public policies affecting health care. Topics include: abortion, euthanasia, health care, experimentation, informed consent and the right to health care.

**PHIL 2257 Happiness and the Meaning of Life: 3 semester hours**

This course is an accessible introduction to the historical and contemporary perspectives on happiness and the meaning of life in philosophy. It examines the nature of happiness by focusing on three major theories: happiness as pleasure, happiness as excellence and happiness as desire satisfaction. Other issues examined may include the relevance of virtue for happiness, the experience machine argument, the best way to pursue happiness as a personal or a policy goal, and other related topics.

**PHIL 2258 Medicine, Values, And Society: 3 semester hours**

Social, conceptual, and policy issues connected with medicine form the focus of the course. Topics may include: (1) role played by race & gender in design of research and distribution of care; (2) whether diseases are socially constructed categories reflecting the values of society; (3) development of social policies that offer universal access to health care; (4) the legitimacy of using psychotropic drugs to enhance life, rather than treat the disease. The course differs from Bioethics by emphasizing policy issues and their conceptual basis. Content of this course may vary.

**PHIL 2259 Engineering Ethics: 3 semester hours**

An examination of ethical issues in engineering using professional engineering codes as a starting point. The course will have a problem solving orientation, focusing on the analysis of particular cases. Actual high-profile cases such as the Challenger disaster will be considered, as well as hypothetical cases illustrating the more commonly encountered moral problems in engineering (such as accepting gifts from vendors). Topics include the engineer/manager relationship, engineers and the environment, honesty in engineering, and risk, safety, and liability.

**PHIL 2276 Philosophy of Film: 3 semester hours**

Critical study of such issues as film's relation to photography, shots and editing, documentary vs. fiction films, cinematic narration, our identification with film characters, criticism and evaluation.

**PHIL 2277 Philosophy and Food: 3 semester hours**

This course will examine issues surrounding the production, consumption, and enjoyment of food. Questions about food choices, food scarcity, self-control, and aberrant eating will be addressed. The focus will range from global issues such as population growth, the carrying capacity of the planet, famine, and GMO crops to more narrowly focused topics such as the workings of our sense of taste, our ability to evaluate and rank different food items, and the very idea of expertise in tasting.

**PHIL 2280 Minds, Brains, And Machines: 3 semester hours**

An introduction to basic philosophical issues in cognitive science. General topics include minds as computers; computers as minds, or the possibility of artificial intelligence that is truly intelligent; relationship between mental function and brain function. Some areas of current research, such as reasoning, vision, and emotion.

**PHIL 2281 Darwinism and the Philosophy of Biology: 3 semester hours**

Prerequisites: Six hours in Philosophy, graduate standing, or consent of instructor. Examines Darwin's theory of evolution by natural selection and its philosophical consequences. Besides the theory itself, topics may include (but are not limited to): how we can test evolution and what the evidence is for it; the design argument; adaptationism; evolutionary psychology; evolution and mortality; the fact-value distinction; nature versus nurture; differences between humans and other animals; evolution and human history; genetic engineering and possible futures.

**PHIL 2282 Philosophy of Science in Historical Perspective: 3 semester hours**

This course considers the history and philosophy of ancient, medieval and early modern science, with a focus on theories of scientific methodology, biology and physics. Figures treated may include Pythagoras, Hippocrates, Plato, Aristotle, Euclid, Galen, Harvey, Copernicus, Kepler, and Newton. Topics may include Hippocratic and Galenic medicine; geocentric and heliocentric astronomies; theories of induction; scientific realism vs. instrumentalism; and the role of logic and mathematics in ancient and medieval sciences. Content of this course may vary.

**PHIL 2283 Markets & Morals: 3 semester hours**

Prerequisites: MATH 1030, or equivalent. This course will explore some moral issues connected with economic markets: the reasons for and against promoting free markets and free trade; whether we should be able to buy and sell anything or are there goods and services that should be above market transactions; whether free markets make us happier; how free markets are related to individual freedom; whether the efficacy of markets requires individuals to be moral; what moral grounds there are, if any, for capitalism, libertarianism, socialism, and Marxism.

**PHIL 3286 International Business Ethics: 3 semester hours**

Same as INTL BUS 3286. The course will deal with moral issues that are raised by the increasing globalization of business. Apart from the general issue of whether this globalization is itself a good thing, we will discuss such issues as child labor, working conditions, safety standards, environmental policies, bribery and other "corrupt" practices, respect for intellectual property, etc. Frequent short papers will be assigned.

**PHIL 3301 Ancient Philosophy: 3 semester hours**

Freshman admitted by consent of department. The principle philosophical doctrines of the ancient world, with special emphasis on the philosophies of Plato and Aristotle. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3302 Medieval Philosophy: 3 semester hours**

A critical study of the important philosophies of the period from August to the Renaissance. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3303 Early Modern Philosophy: 3 semester hours**

Principal figures in the development of rationalism, empiricism and skepticism in early modern Europe, from Descartes through Hume. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3304 Kant And Nineteenth Century Philosophy: 3 semester hours**

Study of Kant and such major nineteenth century figures as Hegel and Nietzsche, Mill and Pierce. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3305 Twentieth Century Philosophy: 3 semester hours**

Representative topics in contemporary philosophy, with readings selected from pragmatism, logical positivism, linguistic analysis and existentialism. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3307 American Philosophy: 3 semester hours**

Prerequisite: Six hours of philosophy or consent of instructor. A study of selected American philosophers.

**PHIL 3360 Formal Logic: 3 semester hours**

An introductory study of logical truth and deductive inference, with emphasis on the development and mastery of a formal system.

**PHIL 3369 The Marxist Heritage: 3 semester hours**

(Same as Political Science 3690) Study of Marx and leading Marxists, designed to evaluate their influence on recent political, economic, and social thought and institutions.

**PHIL 3374 Philosophy Of Art: 3 semester hours**

Same as ART HS 3374. A critical study of such issues as the definition of art, the nature of aesthetic experience, meaning and interpretation in the arts, art and emotion, value in art.

**PHIL 3378 Philosophy of Mind: 3 semester hours**

Prerequisites: Three hours of philosophy or consent of instructor. An introduction to philosophical issues pertaining to the mind. Topics may include how the mind relates to the body, how the mind represents the world, how the mind works, consciousness, and free will.

**PHIL 3380 Philosophy Of Science: 3 semester hours**

An examination of science: what makes science special? Topics may include (but are not limited to): empiricism and of induction; paradigms and revolutions; explanation, causation and laws; realism versus instrumentalism; critiques of science such as those of feminism or postmodernism; and reductionism - ultimately is it all just physics?.

**PHIL 4401 Plato: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. A study of selected Platonic dialogues.

**PHIL 4402 Aristotle: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. A selective study of Aristotle's major works.

**PHIL 4405 Rationalism: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. An examination of the philosophies of such major figures as Descartes, Spinoza, and Leibniz.

**PHIL 4406 Empiricism: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Early Modern philosophy recommended, graduate standing, or consent of instructor. An examination of the philosophies of such major figures as Locke, Berkeley, and Hume.

**PHIL 4407 Kant: 3 semester hours**

Prerequisites: Six hours of philosophy, PHIL 3304 or equivalent recommended, graduate standing or consent of instructor. A systematic study of the Critique of Pure Reason.

**PHIL 4408 Hegel: 3 semester hours**

Prerequisites: Six hours of philosophy, PHIL 3304 or equivalent recommended, graduate standing, or consent of instructor. A critical study of the writings and influence of Hegel.

**PHIL 4410 Topics and Figures in the History of Philosophy: 3 semester hours**

Prerequisites: Nine hours of philosophy, graduate standing, or consent of instructor. In-depth examination of a particular topic, significant figure or philosophical movement from the history of philosophy. The philosopher or movement to be studied will be announced prior to registration. This is a variable content course and may be taken again for credit with the consent of the instructor and department chair.

**PHIL 4421 The Analytic Tradition: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. PHIL 3305 and PHIL 3360 strongly recommended. Course studies in depth the development of analytic philosophy with a broad emphasis on its style and substance. Topics may include early writings that set the stage for this tradition (Frege, Moore, Russell), the basic texts of Logical Positivism (Carnap, Schlick, Neurath, Hempel), and later responses including reassessment of the doctrine, the revival of naturalism, and the "death" of philosophy (Wittgenstein, Quine, Sellars). This is a variable content course that may be taken again for credit with consent of the instructor and the department chair.

**PHIL 4430 Social And Political Philosophy: 3 semester hours**

Prerequisites: Six credit hours of philosophy required or consent of instructor. This course will cover several classic works of political theory, with a particular focus on the nature of justice, the proper extent of liberty, and social contract arguments for the legitimacy of state authority. Readings from Plato, Hobbes, Locke, Hume, Rousseau, Bentham, Mill, Marx and Rawls.

**PHIL 4435 Classical Ethical Theory: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. Significant contributions to moral philosophy from Plato and Aristotle to Bentham and Mill.

**PHIL 4437 Metaethics: 3 semester hours**

Prerequisites: 6 credit hours of Philosophy. This course deals with questions regarding the foundations of ethics and the status of our ethical judgments about what's right and wrong, good and bad. The course will consider contemporary approaches to issues such as moral motivation, moral reasons, moral explanations, moral disagreement, moral knowledge, and moral supervenience, as well as various debates between realists and antirealists, and between cognitivists and expressivists.

**PHIL 4438 Recent Ethical Theory: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. A study of major contributions to twentieth-century ethics, including works by such writers as Moore, Dewey, Ross, Stevenson, Hare, and Rawls.



**PHIL 4439 Topics In Ethical Theory: 3 semester hours**

Prerequisites: PHIL 4435, PHIL 4438, nine hours of philosophy, graduate standing, or consent of instructor. Formulation and evaluation of major theories in normative ethics, metaethics, and axiology. Topics include: egoism, moral realism, act and rule utilitarianism, and varieties of naturalism and non-naturalism in ethics. This is a variable content course and can be taken again for credit with the consent of the instructor and the department chair.

**PHIL 4440 Theories Of Knowledge: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. An examination of concepts and problems involved in the characterization of knowledge. Specific topics will vary, but will usually include knowledge, belief, skepticism, evidence, certainty, perception, truth, and necessity.

**PHIL 4445 Metaphysics: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. An examination of selected metaphysical topics such as substance, universals, causality, necessity, space and time, free will, being, and identity.

**PHIL 4450 Special Readings In Philosophy: 1-3 semester hours**

Prerequisite: Consent of Department Independent study through readings, reports, and conferences. This is a content course and may be taken again up to a total of 6 credit hours with consent of instructor and department chair.

**PHIL 4451 Special Topics In Philosophy: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. A critical study of classical and/or contemporary contributions to a selected topic in philosophy. The topic to be considered will be announced prior to registration. This is a variable content course and can be taken again for credit with the consent of the instructor and the department chair.

**PHIL 4452 Feminism And Science: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. Same as GS 4452. This course will explore major themes and issues in feminist science scholarship, a body of research that focuses on the relationship between science and gender. Feminist research in the philosophy and history of science, and in the biological sciences, are emphasized. Issues include: the nature of objectivity, evidence, and truth; the factors that contribute to the acceptance or rejection of research hypothesis and theories; the nature and consequences of science's cognitive authority; and the relationship between science and values.

**PHIL 4458 Ethics And The Computer: 3 semester hours**

Prerequisites: Six hours of coursework above the level of MATH 1030 in Math/Computer Science or at least six hours of philosophy or consent of instructor. An examination of ethical issues concerning the use of computers generally and software engineering in particular. Aims at developing awareness of these issues, and skills for ethical decision-making regarding them through careful, analytical methods. Typical issues include privacy, intellectual property, computer fraud, and others.

**PHIL 4460 Advanced Formal Logic: 3 semester hours**

Prerequisites: PHIL 3360, graduate standing, or consent of instructor. Rigorous study of major developments in contemporary logic. Emphasis is given to theoretical problems and some attention is devoted to philosophical issues arising from logic.

**PHIL 4465 Theory Of Decisions And Games: 3 semester hours**

Prerequisites: Six hours of Philosophy and junior standing, or Political Science 4601 (or the equivalent) or consent of the instructor. A study of rational decision-making, including games against nature, zero-sum games, and social choices. Topics will include the following: expected utility maximization, the Prisoner's Dilemma, Nash equilibria, and Arrow's theorem on the impossibility of a social welfare function. Parts of the course are technical in nature; a prior course in mathematics (e.g., finite mathematics, calculus, statistics or an economics course with a mathematical component), symbolic logic, or some other course with comparable mathematical content. (Same as Political Science 4060).

**PHIL 4474 Topics In Aesthetics: 3 semester hours**

Prerequisites: PHIL 3374, graduate standing or consent of instructor. Selected topics, such as vision and representation, musical aesthetics, and recent theorists. This is a variable content course that may be taken again for credit with the approval of the instructor and the department chair.

**PHIL 4478 Topics In Philosophy Of Mind: 3 semester hours**

Prerequisites: PHIL 3378 or six hours of other philosophy courses or consent of instructor. An examination of selected topics at the interface of philosophical and psychological research. This is a variable content course and can be taken again for credit with the consent of the instructor and the department chair.

**PHIL 4479 Philosophy Of Cognitive Science: 3 semester hours**

Prerequisites: PHIL 3378 or PHIL 4478 or nine hours of other philosophy courses or consent of instructor. An exploration of the philosophical foundations of cognitive science, a cooperative effort of philosophers, cognitive psychologists, brain scientists, computer scientists, and others to understand the relationship between the mind and the brain.

**PHIL 4480 Topics In Philosophy Of Science: 3 semester hours**

Prerequisites: Consent of the instructor. An advanced introduction to the philosophy of science for advanced undergraduates in philosophy and graduate and professional students. Topics covered include scientific method, confirmation, explanation, the nature of theories, scientific progress, science criticism, ethics in science, and science and religion.

**PHIL 4482 Philosophy Of Social Science: 3 semester hours**

Prerequisites: Six hours of philosophy or consent of instructor. An intensive examination of selected topics such as the nature of explanation in social science versus natural science, interpretation theory, and the postmodernism debate (e.g. Habermas, Foucault, Clifford). This course may be repeated for credit on approval by the department.

**PHIL 4483 Topics In History And Philosophy Of Science: 3 semester hours**

Prerequisites: Six hours of philosophy, (PHIL 3380 strongly recommended), graduate standing, or consent of instructor. Examines in depth a particular topic or topics from either the history or philosophy of science. This is a variable content course and may be taken again for credit with the consent of the instructor and department chair.

**PHIL 4487 Topics In Philosophy Of Law: 3 semester hours**

Same as CRIMIN 4487. Prerequisites: CRIMIN 1100 and three hours of philosophy, graduate standing, or consent of instructor. An intensive study of recent philosophical debate about such issues as the authority of law, legal equality and justice, legal responsibility, self-determination and privacy, and legal punishment. This is a variable content course and may be taken again for credit with consent of the instructor and the department chair.

**PHIL 4491 Senior Seminar: 3 semester hours**

Prerequisites: Senior standing; at least 12 hours of philosophy at the 2000 level or above; or consent of instructor Intensive study of a central philosophical problem. The course emphasizes the fundamentals of philosophical writing and scholarship. Students will write a major paper to be evaluated by two members of the Philosophy Department and the course instructor.

**PHIL 5400 Proseminar In Philosophy: 3 semester hours**

Prerequisites: Graduate Standing Required of all entering Graduate Students in the Fall\_Semester of the first full year of residency. Topics vary. Other graduate students may take this course with the permission of the instructor and the director of Graduate Studies in Philosophy. Students will be expected to write papers, give presentations, and join in class discussion.

**PHIL 5403 Seminar on Themes in the History of Philosophy: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Close study of selected topics, texts, or school of thought in the history of philosophy. Topics may include but are not limited to historical theories of science, Hellenistic philosophy, Neoplatonism, and historical approaches concerning the nature of time. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5410 Seminar In Significant Figures In Philosophy: 3 semester hours**

Prerequisites: Graduate Standing In depth study of the work of a single philosopher. The philosopher selected will be announced prior to registration. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5478 Seminar In Philosophy Of Mind: 3 semester hours**

Prerequisites: Graduate standing Topics may include functionalism and physicalism; representation and the nature of propositional attitudes such as belief, desire, and the various emotions; folk psychology and knowledge of other minds; introspection and knowledge of one's own mind; conscious and unconscious mental states and processes. This is a variable content course and may be taken again for credit with consent of the instructor and the department chair.

**PHIL 5495 Thesis Research: 1-3 semester hours**

Prerequisites: Graduate standing or consent of instructor. May be repeated once for credit with the consent of the instructor and the department chair.

**PHIL 5521 Seminar In Analytic Philosophy: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Intensive study of selected topics, texts, or individuals in historical or contemporary analytic philosophy. Topics may include, but are not limited to, Frege semantics, Russell's theory of definite descriptions, logical positivism, Wittgenstein's philosophy of language. Quine on the analytic/ synthetic distinction, Kripke possible-world semantics, theories of propositions, the analysis of knowledge, contextualism in epistemology and language, relative semantics, epistemic two-dimensionalism, conceivability vs. possibility, three-dimensionalism vs. four-dimensionalism, presentism vs. eternalism, and applications of core concepts in other areas of philosophy. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5530 Seminar In Social And Political Philosophy: 3 semester hours**

An intensive study of contemporary philosophical debate about such issues such as civil liberty, economic justice, political decision-making, and state authority. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5533 Philosophy Of Law: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of origins of law and the basis for legal obligation. Specific consideration of the justification of punishment, morality and law, and legal reasoning. (Same as CCJ 5533).

**PHIL 5537 Seminar in Metaethics: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. The course deals with questions regarding the foundations of ethics and the status of our ethical judgements about what's right and wrong, good and bad. The course will consider contemporary approaches to issues such as moral motivation, moral reasons, moral explanations, moral disagreement, moral knowledge, and moral supervenience, as well as various debates between realists and antirealists, and between cognitivists and expressivists.

**PHIL 5538 Seminar In Ethical Theory: 3 semester hours**

Prerequisites: Graduate standing or consent of the instructor. In this course we will seek to answer questions from normative ethics or metaethics, which may include: What do all morally wrong actions have in common? What does the word "wrong" mean? How, if at all, can we verify moral judgements? Are any moral judgements valid for all societies? Do we always have good reason to be moral?.

**PHIL 5540 Seminar In Epistemology: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Close study of selected topics, texts, or individuals in epistemology. Topics may include (but are not limited to) theories of justification, naturalism in epistemology, and conceptions of knowledge. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5545 Seminar In Metaphysics: 3 semester hours**

Prerequisites: Graduate standing Intensive study of a selected topic or problem area in metaphysics, e.g. mind-body identity, nature of the self, or conception of time. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5551 Special Readings In Philosophy: 1-3 semester hours**

Prerequisites: Graduate Standing, written consent of instructor Independent study through readings, reports, and conferences. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5560 Seminar In Logic: 3 semester hours**

Prerequisites: Graduate standing A focused study of topics in logic and/ or its history. Representative topics include: Aristotelian logic, modal logic, the Godel incompleteness theorems, relevance logic, paraconsistent logic, free logic. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5561 Graduate Formal Logic: 3 semester hours**

Prerequisite: Graduate standing; permission of the department A rigorous introduction to formal logic that includes sentential calculus, predicate logic, and completeness proofs. May be taken for graduate credit only with permission of the graduate advisor and chair.

**PHIL 5579 Seminar In Philosophy Of Cognitive Science: 3 semester hours**

Prerequisites: Graduate standing General topics include the role of computation in cognitive science, the merits of symbolic computation and connectionism, the aims and methods of artificial intelligence, and the relationship between cognitive science and our everyday understanding of people. Specific topics may include perception, reasoning, consciousness, language, emotion, and will. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5580 Seminar In Philosophy Of Science: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Focus is on recent issues and controversies. Topics may include: theories and observation, models of explanation, confirmation, realism and antirealism, empiricism & naturalism, "social construction" and feminist views of science. This is a variable content course and may be taken again with the consent of the instructor and the department chair.

**PHIL 5582 Seminar In Philosophy Of Social Science: 3 semester hours**

Prerequisites: Graduate Standing or consent of instructor. Intensive examination of selected topics, such as the nature of explanation in social science, rationality, value-freedom and objectivity, or relation of social to natural sciences. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5590 Philosophical Issues In Other Disciplines: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. An examination of selected philosophical issues in disciplines other than philosophy. One or more such disciplines as history, political science, psychology, sociology, biology, chemistry, physics, or mathematics will be chosen. The discipline(s) and issues selected will be announced prior to registration. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

## Physics and Astronomy

### General Information

#### Degrees and Areas of Concentration

The Department of Physics and Astronomy offers superb course work leading to the B.A. in physics, the B.S. in physics, and in cooperation with the College of Education, the B.A. in physics with teacher certification and the B.S. in education with an emphasis in physics. The Department offers meritorious students opportunities to participate in teaching and research to help prepare them for the independent effort required in industry or graduate school. The Department's faculty members have a diversity of interests and are active in various experimental and theoretical research areas. Students successfully completing this program will obtain an understanding of basic physics concepts, mathematical and problem-solving skills needed to solve basic physics problems, experimental skills in physics, astrophysics, or biophysics, and the ability to analyze and interpret scientific data and write scientific papers or reports.

The Master of Science in physics program combines a sound basis in the fundamental areas of classical and modern physics from both a theoretical and an applied perspective. The program is designed to enable students with undergraduate backgrounds in physics or other technical areas to further their professional development and maintain and improve their technical development. The program is offered almost entirely in the evening to serve students who are employed locally. Students receiving a M.S. in physics will obtain an understanding of advanced physics concepts and mathematical and problem-solving skills needed to solve advanced physics problems. Students are strongly encouraged to be involved with faculty research programs that will develop experimental skills in physics, astrophysics, or biophysics as well as experience in analyzing and interpreting scientific data and the writing of scientific papers, reports, or theses. The Department offers the Ph.D. degree in cooperation with Missouri University of Science and Technology Physics Department. Students must satisfy the Missouri S&T admission standards, and the Missouri S&T Qualifying Exam in Physics is required of University of Missouri-St. Louis Ph.D. students. However, all course work and

dissertation research may be completed while the student is in residence at UMSL. In addition to obtaining an understanding of advanced physics concepts and mathematical and problem-solving skills needed to solve advanced physics problems, Ph.D. students are expected to conduct independent scientific research in physics, astrophysics, or biophysics while learning to analyze and interpret scientific data and write scientific papers, reports, and a dissertation.

## Undergraduate Studies

### General Education Requirements

Majors must complete the university and college general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>). Any of the following courses may be used to satisfy the physical science requirement:

ASTRON 1001	Cosmic Evolution Introductory Astronomy	4
ASTRON 1001A	Cosmic Evolution/Introduction Astronomy	3
ASTRON 1011	Planets And Life In The Universe	3
ASTRON 1012	The Violent Universe And The New Astronomy	3
ASTRON 1050	Introduction To Astronomy I	3
ASTRON 1051	Introduction To Astronomy II	3
ASTRON 1121	The Search For Extraterrestrial Life	3
ATM SCI 1001	Elementary Meteorology	4
GEOL 1001	General Geology	4
GEOL 1001A	General Geology	4
GEOL 1002	Historical Geology	4
GEOL 1002A	Historical Geology Lecture	3
PHYSICS 1001	How Things Work	3
PHYSICS 1011	Basic Physics I	4
PHYSICS 1011A	Basic Physics I	3
PHYSICS 1012	Basic Physics II	4
PHYSICS 1012A	Basic Physics II	3
PHYSICS 2111	Physics: Mechanics And Heat	5
PHYSICS 2112	Physics: Electricity, Magnetism, And Optics	5

### Degree Requirements

All physics majors in all programs must complete the physics core curriculum with the exception that majors pursuing the Physics Education option are not required to take PHYSICS 1099 (p. 209) and CMP SCI 1250 (p. 209). In addition to the core courses, each individual program has its own specific requirements. Required Physics, Mathematics, Chemistry, Biology, Optometry and Computer Science courses for a major or minor in physics may not be taken on a satisfactory/unsatisfactory grading basis.

#### Core Curriculum

The following physics courses are required:	23
PHYSICS 1099 Windows On Physics (p. 209)	
PHYSICS 2111 Physics: Mechanics And Heat (p. 209)	
PHYSICS 2112 Physics: Electricity, Magnetism, And Optics (p. 209)	
PHYSICS 3200 Mathematical Methods Of Theoretical Physics (p. 209)	

PHYSICS 3221 Mechanics (p. 209)		
PHYSICS 3223 Electricity And Magnetism (p. 209)		
PHYSICS 3231 Introduction To Modern Physics I (p. 209)		
Also required are:		26
MATH 1800 Analytic Geometry And Calculus I (p. 209)		
MATH 1900 Analytic Geometry And Calculus II (p. 209)		
MATH 2000 Analytic Geometry And Calculus III (p. 209)		
MATH 2020 Introduction To Differential Equations (p. 209)		
CHEM 1111 Introductory Chemistry I (p. 209)		
CMP SCI 1250 Introduction To Computing (p. 209)		
Total Hours		49

Note: Students are urged to begin the calculus sequence [MATH 1800 (p. 209), Analytic Geometry and Calculus I] as soon as possible to avoid delays in graduation.

Students with experience in digital computer programming may be excused from CMP SCI 1250 (p. 209).

## Bachelor of Arts in Physics

The B.A. program is tailored to students wishing to preserve the option for specialization in graduate school without sacrificing the advantages of a liberal arts education. In addition to the core curriculum, including the foreign language requirement, at least three electives at the 3000 or 4000 levels must be completed. It is recommended that at least one of these three electives include ASTRON 4322 (p. 209), PHYSICS 4311 (p. 209), or PHYSICS 4347 (p. 209) for the required capstone course. The Department of Physics and Astronomy will accept the three-course sequence in American Sign Language as a substitution for the foreign language requirement for the degree. At least 31 hours of physics courses, but no more than 45 hours, are required.

## Bachelor of Science in Physics

The B.S. degree provides students with six options: general physics, astrophysics, engineering physics, medical physics, optical biophysics or physics education.

### General Physics Option

This option may be elected by students desiring a greater concentration in physics and mathematics and is recommended for students wishing to enter graduate study in physics. At least 50 hours are required. In addition to the core curriculum, the following physics courses are required:

#### Physics

PHYSICS 4310 Modern Electronics (p. 209)		3
PHYSICS 4311 Advanced Physics Laboratory I (p. 209)		3

PHYSICS 4323 Modern Optics (p. 209)		3
PHYSICS 4331 Intro To Quantum Mechanics (p. 209)		3
PHYSICS 4341 Thermal And Statistical Physics (p. 209)		3
PHYSICS 4350 Computational Physics (p. 209)		3
Select three electives at or above the 4000 level in physics or astronomy.		9

#### Astronomy

ASTRON 1050 Introduction To Astronomy I (p. 209)		3
or ASTRON 1051 Introduction To Astronomy II (p. 209)		

#### Mathematics

MATH 2450 (p. 209) Elementary Linear Algebra		3
Select one elective in mathematics at or above the 3000 level, or in computer science at or above the 2000 level.		3

#### Chemistry

CHEM 1121 (p. 209) Introductory Chemistry II (or equivalent)		5
Total Hours		41

#### Physics

PHYSICS 4310 Modern Electronics		3
PHYSICS 4311 Advanced Physics Laboratory I		3
PHYSICS 4323 Modern Optics		3
PHYSICS 4331 Intro To Quantum Mechanics		3
PHYSICS 4341 Thermal And Statistical Physics		3
PHYSICS 4350 Computational Physics		3
Select three electives at or above the 4000 level in physics or astronomy.		9

#### Astronomy

ASTRON 1050 Introduction To Astronomy I		3
or ASTRON 1051 Introduction To Astronomy II		

#### Mathematics

MATH 2450 Elementary Linear Algebra		3
Select one elective in mathematics at or above the 3000 level, or in computer science at or above the 2000 level.		3

#### Chemistry

CHEM 1121 Introductory Chemistry II (or equivalent)		5
Total Hours		41

## Astrophysics Option

Students who have interests in the aerospace sciences or anticipate graduate studies in astrophysics may elect this option. At least 48 hours must be taken. In addition to the core curriculum, the following physics courses are required:

#### Physics

PHYSICS 4323 Modern Optics (p. 209)		3
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PHYSICS 4331 (p. 209)	Intro To Quantum Mechanics	3
PHYSICS 4341 (p. 209)	Thermal And Statistical Physics	3
PHYSICS 4350 (p. 209)	Computational Physics	3

**Astronomy**

ASTRON 1050 (p. 209)	Introduction To Astronomy I	3
ASTRON 1051 (p. 209)	Introduction To Astronomy II	3
ASTRON 4301 (p. 209)	Astrophysics	3
ASTRON 4322 (p. 209)	Observational Astronomy	4

Select one physics elective at or above the 4000 level. <sup>1</sup> 3

**Mathematics**

MATH 2450 (p. 209)	Elementary Linear Algebra	3
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Total Hours 31

<sup>1</sup> With consent of the astronomy adviser, there may be substitution of ASTRON 1001 (p. 209), ASTRON 1001A (p. 209), ASTRON 1011 (p. 209) or ASTRON 1012 (p. 209) for ASTRON 1050 (p. 209) or ASTRON 1051 (p. 209).

**Engineering Physics Option**

Students interested in careers in the research and development field of industry should consider this option. This program exposes the student to a basic engineering curriculum, as well as to areas of physics with industrial applications, such as electronics, modern optics, and linear analysis. At least 49 hours, but no more than 51, are required. In addition to the core curriculum, the following courses are required:

**Joint Engineering**

ENGR 2310 (p. 209)	Statics	3
ENGR 2320 (p. 209)	Dynamics	3

**Joint Electrical Engineering**

J E ENGR 2300 (p. 209)	Introduction To Electrical Networks	3
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**Physics**

PHYSICS 4310 (p. 209)	Modern Electronics	3
PHYSICS 4311 (p. 209)	Advanced Physics Laboratory I	3
PHYSICS 4323 (p. 209)	Modern Optics	3
PHYSICS 4331 (p. 209)	Intro To Quantum Mechanics	3
PHYSICS 4341 (p. 209)	Thermal And Statistical Physics	3

**Mathematics**

MATH 1320 (p. 209)	Applied Statistics I	3
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MATH 2450 (p. 209)	Elementary Linear Algebra	3
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Select one elective in mathematics at or above the 3000 level, or in a computer science at or above the 2000 level.

Total Hours 33

**Medical Physics Option**

This option is designed for students who are interested in careers in various medical fields or biophysics. This option provides a strong preparation in physics, mathematics, chemistry, and biology for students who intend to apply for admission to medical schools. At least 41 hours of physics and biology combined, but no more than 51, are required. In addition to the core curriculum, the following physics and biology courses are required:

**Physics**

PHYSICS 4310 (p. 209)	Modern Electronics	3
PHYSICS 4347 (p. 209)	Biophysics Of Imaging	4

**Biology**

BIOL 1831 (p. 209)	Introductory Biology: From Molecules To Organisms	5
BIOL 1821 (p. 209)	Introductory Biology: Organisms And The Environment	5
Select two additional physics electives at the 4000 level.		6

**Chemistry**

CHEM 1121 (p. 209)	Introductory Chemistry II	5
CHEM 2612 (p. 209)	Organic Chemistry I	3
CHEM 2622 (p. 209)	Organic Chemistry II	3
CHEM 2633 (p. 209)	Organic Chemistry Laboratory	2

Total Hours 36

**Optical Biophysics Option**

This program is designed for students wanting to obtain a strong biophysics emphasis that will also prepare them for the optometry program at UMSL. This 3+4 program allows students to complete their B.S. in physics and Doctor of Optometry degrees in seven years. Students can complete their B.S. in physics degree in their fourth year while starting coursework in the College of Optometry. A total of 55 hours in physics, biology, and optometry courses are required. In addition to the physics core curriculum, the following courses are required:

**Physics**

PHYSICS 4341 (p. 209)	Thermal And Statistical Physics	3
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**Biology**

BIOL 1831 (p. 209)	Introductory Biology: From Molecules To Organisms	5
BIOL 1821 (p. 209)	Introductory Biology: Organisms And The Environment	5
BIOL 2482 (p. 209)	Microbiology	3

BIOL 2483 (p. 209)	Microbiology Laboratory	2
<b>Optometry (fourth year only)</b>		
OPTOM 8020 (p. 209)	Basic and Clinical Optics I	4
OPTOM 8060 (p. 209)	Biochemistry	3
OPTOM 8120 (p. 209)	Basic & Clinical Optics II	5
OPTOM 8140	Physical Optics and Photometry <sup>1</sup>	3
<b>Chemistry</b>		
CHEM 1121 (p. 209)	Introductory Chemistry II	5
CHEM 2612 (p. 209)	Organic Chemistry I	3
CHEM 2622 (p. 209)	Organic Chemistry II	3
CHEM 2633 (p. 209)	Organic Chemistry Laboratory	2
<b>Psychology</b>		
PSYCH 1003 (p. 209)	General Psychology	3
Select one elective in psychology		3
<b>Statistics</b>		
MATH 1320 (p. 209)	Applied Statistics I	3
or PSYCH 2201 (p. 209)	Psychological Statistics	
Total Hours		55

<sup>1</sup> This course will not be offered in 2013-2014. Please contact the department for more information.

Note: Upon declaring physics as a major and selecting this option, students should seek an initial interview with the Director of Student Services and the Pre-Optometry Advisor in the UMSL College of Optometry to ensure that all prerequisites for the College of Optometry will be completed. A similar review is recommended at the beginning of the Winter Semester of the second year. In August following the completion of their second year of this program, students may apply formally to the UMSL College of Optometry and arrange to take the Optometry Admissions Test (OAT) during the Fall semester of their third year. The applicant will be invited for a formal interview for acceptance into the College of Optometry professional program following receipt of a completed application in the Fall Semester of the candidate's third year. Following the formal interview with the College of Optometry at the beginning of the third year, students with a 3.0 or better grade point average in the science prerequisites for optometry and a score of 310 or better on the OAT exam may be accepted into the College of Optometry.

## B.S. degree in Physics, Physics Education Option and B.S. degree in Secondary Education with an Emphasis in Physics.

The course sequence below meets the science requirements for Missouri certification for teaching physics at the secondary school level. All candidates must enroll in a program that includes Levels I, II, and III coursework in the College of Education, which includes one semester

as a Teacher Intern and one semester of full-time Student Teaching. In addition, students must complete the following Science Core Courses and the courses listed under Physics Endorsement:

### Science Core Courses

PHIL 3380 (p. 209)	Philosophy Of Science	3
BIOL 1831 (p. 209)	Introductory Biology: From Molecules To Organisms	5
BIOL 2102 (p. 209)	General Ecology	3
CHEM 1111 (p. 209)	Introductory Chemistry I	5
CHEM 1121 (p. 209)	Introductory Chemistry II	5
PHYSICS 2111 (p. 209)	Physics: Mechanics And Heat	5
PHYSICS 2112 (p. 209)	Physics: Electricity, Magnetism, And Optics	5
Select one of the following:		4
GEOL 1001 (p. 209)	General Geology	
ATM SCI 1001 (p. 209)	Elementary Meteorology	
ASTRON10XX		

### Physics Endorsement

PHYSICS 3200 (p. 209)	Mathematical Methods Of Theoretical Physics	3
PHYSICS 3221 (p. 209)	Mechanics	3
PHYSICS 3223 (p. 209)	Electricity And Magnetism	3
PHYSICS 3231 (p. 209)	Introduction To Modern Physics I	3
PHYSICS 4310 (p. 209)	Modern Electronics	3
PHYSICS 4311 (p. 209)	Advanced Physics Laboratory I	3
SEC ED 3240 (p. 209)	Curriculum And Methods Of Teaching Physical Sciences	3
SEC ED 4837 (p. 209)	Chemistry/Physics Teaching Seminar	2

### Minor in Physics

Students may complete a minor in physics with the flexibility of emphasis on classical physics, modern physics, or a combination of the two areas. The following physics courses are required:

PHYSICS 1099 (p. 209)	Windows On Physics	1
PHYSICS 2111 (p. 209)	Physics: Mechanics And Heat	5
PHYSICS 2112 (p. 209)	Physics: Electricity, Magnetism, And Optics	5

PHYSICS 3200 Mathematical Methods Of Theoretical Physics (p. 209)	3
Select two additional emphasis courses from the following:	6
PHYSICS 3221 Mechanics (p. 209)	
PHYSICS 3223 Electricity And Magnetism (p. 209)	
PHYSICS 3231 Introduction To Modern Physics I (p. 209)	
PHYSICS 4310 Modern Electronics (p. 209)	
Total Hours	20

A GPA of at least 2.0 is required in courses presented for a minor. It is required that a student completes a minimum of 6 hours of graded work in 2000 level or above courses on the UMSL campus.

## Graduate Studies

### Admission Requirements

The Department requires applicants to have adequate backgrounds in such areas as mechanics, thermodynamics, electromagnetism, optics, electronics, and modern physics. Students admitted to the program with deficiencies in these areas are required to take appropriate undergraduate courses. If necessary, a remedial program is determined in consultation with the department graduate studies director at the time of application for admission.

### Graduate Degree Requirements

#### Master's

A student must complete 30 credit hours in graduate physics courses with at least 15 of these at the 5000 or 6000 level. Writing a thesis is optional. A maximum of six (3) credit hours of Research, PHYSICS 6490 (p. 209), may be counted toward the minimum 15 hours with (or without) the thesis option. Students must pass a comprehensive examination, which includes a defense of the thesis for students who have chosen to write one. A grade point average of 3.0 must be maintained during each academic year. Students must complete their degree program within 130 percent of the semester hour requirements for the degree. The requirements must be fulfilled within six years from the time of admission. Two-thirds of required graduate credit must be taken in residence. There is no foreign language requirement.

#### Typical Program

<b>First Semester</b>	
PHYSICS: 6000 level and 4000, 5000 level course	6
<b>Second Semester</b>	
PHYSICS: 6000 level and 4000, 5000 level course	6
<b>Third Semester</b>	
PHYSICS: 6000 level and 4000, 5000 level course	6
PHYSICS 6490 Research (p. 209)	3
<b>Fourth Semester</b>	
PHYSICS: 6000 level and 4000 level course	6

PHYSICS 6490 Research (p. 209)	3
Total Hours	30
<b>First Semester</b>	
PHYSICS: 6000 level and 4000, 5000 level course	6
<b>Second Semester</b>	
PHYSICS: 6000 level and 4000, 5000 level course	6
<b>Third Semester</b>	
PHYSICS: 6000 level and 4000, 5000 level course	6
PHYSICS 6490 Research	3
<b>Fourth Semester</b>	
PHYSICS: 6000 level and 4000 level course	6
PHYSICS 6490 Research	3
Total Hours	30

### Doctorate

Students must complete a minimum of 48 hours past the master's degree with satisfactory performance. The university has a residency requirement of three years/six semesters (for those with master's degree, two years/ four semesters) at UMSL and/or Missouri S&T. The Ph.D. qualifying exam, dissertation, and dissertation exam are administered in cooperation with Missouri S&T. All graduate work requires B grades or better. The dissertation may be written in absentia, and there is no foreign language requirement.

### Special Equipment, Facilities, or Programs

The William L. Clay Center for Nanoscience, which opened in 1996, is an interdisciplinary facility bringing together both physicists and chemists for research in materials science. A focus of the center is to foster collaborations between its members and colleagues in industry. The center houses the Microscope Image and Spectroscopy Tech Lab where research at the forefront of nanotechnology is conducted with transmission electron, scanning probe, and scanning electron microscopes in a building uniquely designed for such work. The center is spearheading the formation of the Missouri NanoAlliance, a nano-characterization and synthesis network that will facilitate the sharing of resources across Missouri. The Center for Neurodynamics, established in 1995, conducts research at the interface between physics and biology, with a focus on the roles of noise and stochastic synchronization in neural processing. The center has an on-site high speed (CCD) imaging system for studying the spatial dynamics of neural activity in the mammalian brain. Collaborations with St. Louis University will permit high time-resolution magnetoencephalography (MEG) image analysis, making use of a high-speed Internet 2 connection, UMSL's new high-speed (3.8 GHz) 128-node Beowulf cluster, and Missouri's first MEG machine. Astronomers make use of national facilities at Kitt Peak, Cerro Tololo, and Mauna Kea Observatories. The university provides email and internet services through numerous student labs equipped with computers with Windows and Macintosh operating systems, flat-bed document scanners, and color printers. The department maintains a network of UNIX/LINUX/OSX system and workstations and a workstation for image processing. In addition, the department maintains a library containing some of the most frequently used physics journals and machine and electronics shops.

### Career Outlook

Many of our students have been successful in subsequent graduate studies in astronomy and atmospheric science, biomedical engineering,

medical physics, and patent law, as well as in physics. Our alumni have pursued graduate studies and earned doctorate degrees at institutions such as Cornell University, University of Wisconsin, Washington University, and University of Chicago. The many students who elected a career in industry are now working in a variety of settings for such firms as International Business Machines, Emerson Electric, MEMC Electronic Materials, Motorola, A T & T, Hewlett-Packard, Boeing, and the National Center for Atmospheric Research. Several former students are currently teaching physics in high schools around the St. Louis area.

## Sample Four Year Plans

Physics BA (p. 214) Physics BS (p. 215)

### Physics BA

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 MATH 1800	5
PHYSICS 1099	1 Foreign Language 1002	5
ENGL 1100	3 CHEM 1111	5
MATH 1030	3	
MATH 1035	2	
Foreign Language 1001	5	
	<b>15</b>	<b>15</b>
Second Year		
Fall	Hours Spring	Hours
PHYSICS 2111	5 PHYSICS 2112	5
MATH 1900	5 MATH 2000	5
CMP SCI 1250	3 General Education	6
Foreign Language 2101	3	
	<b>16</b>	<b>16</b>
Third Year		
Fall	Hours Spring	Hours
PHYSICS 3200	3 PHYSICS 3221	3
PHYSICS 3231	3 PHYSICS 3221	3
MATH 2020	3 ENGL 3100	3
General Education	6 General Education	6
	<b>15</b>	<b>15</b>
Fourth Year		
Fall	Hours Spring	Hours
PHYSICS 3000+ level elective	6 PHYSICS 3000+ level elective	6
General Education	6 General Education	3
Elective or minor	3 Elective or minor	7
	<b>15</b>	<b>16</b>
Total Hours: 123		

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are*

*encouraged to meet with their advisor each semester. All requirements are subject to change.*

### Physics BS

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 CHEM 1121	5
MATH 1035	2 MATH 1800	5
CHEM 1111	5 ASTRON 1051	3
ENGL 1100	3 General Education	3
PHYSICS 1099	1	
MATH 1030	3	
	<b>15</b>	<b>16</b>
Second Year		
Fall	Hours Spring	Hours
MATH 1900	5 PHYSICS 2111	5
CMP SCI 1250	3 MATH 2000	5
PHYSICS 2111	5 MATH 2450	3
CMP SCI 2000+ level elective	3 General Education	3
	<b>16</b>	<b>16</b>
Third Year		
Fall	Hours Spring	Hours
PHYSICS 3200	3 PHYSICS 3221	3
MATH 2020	3 PHYSICS 3221	3
PHYSICS 3231	3 PHYSICS 4341	3
General Education	9 PHYSICS 4000+ level elective	3
	General Education	3
	<b>18</b>	<b>15</b>
Fourth Year		
Fall	Hours Spring	Hours
PHYSICS 4331	3 PHYSICS 4323	3
PHYSICS 4310	3 PHYSICS 431	3
PHYSICS 4000+ level elective	3 PHYSICS 4000+ level elective	3
PHYSICS 4350, MATH 4030, or MATH 4230	3 General Education	9
ENGL 3100	3	
	<b>15</b>	<b>18</b>
Total Hours: 129		

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*



## Astronomy Courses

### ***ASTRON 1001 Cosmic Evolution Introductory Astronomy: 4 semester hours***

Overview of astronomy, from the planets to the Big Bang. Topics include the celestial motions, planets and the formation of the solar system, stars and stellar evolution, galaxies, and cosmology. Students will be introduced to the latest discoveries and how they affect our understanding of the universe. The format is three classroom hours and one 2-hour laboratory session per week to enhance lecture material.

### ***ASTRON 1001A Cosmic Evolution/Introduction Astronomy: 3 semester hours***

Overview of astronomy, from the planets to the Big Bang. Topics include the celestial motions, planets and the formation of the solar system, stars and stellar evolution, galaxies, and cosmology. Students will be introduced to the latest discoveries and how they affect our understanding of the universe. Three classroom hours per week. Same as ASTRON 1001 without the laboratory.

### ***ASTRON 1011 Planets And Life In The Universe: 3 semester hours***

Man's concept of the solar system from Stonehenge to Einstein; geology and meteorology of the planets of our solar system, with particular attention to results from the space program; exobiology--study of the possibilities of life on other worlds and the best method of communicating with it. Three lecture hours per week.

### ***ASTRON 1012 The Violent Universe And The New Astronomy: 3 semester hours***

A nontechnical course focusing on recent results which larger telescopes and the space program have made available. Pulsars, x-ray stars, and black holes; radio astronomy, our galaxy, and interstellar molecules; exploding galaxies and quasars; origin of the expanding universe. Three lecture hours and one observing session per week.

### ***ASTRON 1050 Introduction To Astronomy I: 3 semester hours***

Prerequisites: MATH 1030 and MATH 1035. A survey of the history of astronomy from the ancient times to present. Theories for the formation and evolution of the solar system and the general features of the solar system and planetary motions are discussed. The physical concept of gravity is presented. The detailed properties of the planets, comets, and asteroids are reviewed, concentrating on recent results from space missions.

### ***ASTRON 1051 Introduction To Astronomy II: 3 semester hours***

Prerequisites: MATH 1030 and MATH 1035. A survey of astronomy beyond the solar system. Topics include stars and stellar evolution, neutron stars, and black holes. The physical concept of light and the design of telescopes is discussed in detail. The structure of the Milky Way Galaxy and the large scale structure of the universe are explored. Dark matter, quasars, and active galactic nuclei are discussed in the context of theories for the formation and evolution of the universe. Course does not need to be taken in sequence with ASTRON 1050.

### ***ASTRON 1121 The Search For Extraterrestrial Life: 3 semester hours***

Prerequisite: ASTRON 1001 or ASTRON 1011. Are we alone? The possibility of life in the universe in addition to our own will be explored. Our discussion of the chances for extraterrestrial life will be built around the current theories of chemical, biological, and cultural evolution which have led to our own technological civilization on Earth. Strategies for communication with extraterrestrial intelligence will be discussed.

### ***ASTRON 4301 Astrophysics: 3 semester hours***

Prerequisite: PHYSICS 3231 or consent of instructor. A Moderately technical introduction to astrophysics. Topics will include: physics of stellar interiors and atmospheres; interpretation of stellar spectra; stellar evolution; radio astronomy; and cosmology.

### ***ASTRON 4322 Observational Astronomy: 4 semester hours***

Prerequisite: ASTRON 1050, ASTRON 1051 and PHYSICS 3231. Tools of the astronomer: telescopes, spectroscopy, photoelectric photometry. Students will work on a number of projects which will enable them to develop expertise in obtaining, reducing, and analyzing astronomical observations. Student night observing will be an important part of the course. This course is primarily for persons who are astronomy or physics majors or who have some equivalent background.

## Atmospheric Science Courses

### ***ATM SCI 1001 Elementary Meteorology: 4 semester hours***

Prerequisites: MATH 1020 or equivalent. An elementary course covering atmospheric phenomena, weather, and climate. Topics included are temperature, pressure, and moisture distributions in the atmosphere and dynamical effects such as radiation, stability, storms, and general circulation. Four classroom hours per week with one hour being a learning enhancement session to include demonstrations and exercises on problem solving.

### ***ATM SCI 1001A Elementary Meteorology: 3 semester hours***

Prerequisite: MATH 1020 or equivalent. An elementary course covering atmospheric phenomena, weather, and climate. Topics included are temperature, pressure, and moisture distributions in the atmosphere and dynamical effect such as radiation, stability, storms, and general circulation. Same as ATM SCI 1001 without the learning enhancement session.

## Geology Courses

### ***GEOL 1001 General Geology: 4 semester hours***

Earth materials and processes, including geological aspects of the resource/energy problem. Laboratory involves identification of common rocks and minerals.

### ***GEOL 1001A General Geology: 4 semester hours***

Earth materials and processes, including geological aspects of the resource/energy problem. Laboratory involves identification of common rocks and minerals.

### ***GEOL 1002 Historical Geology: 4 semester hours***

Study of changes in Geography, climate and life through geological time; origin of and continents oceans basins, and mountains in light of continental drift. Laboratory primarily involves description and identification of fossils. Three hours of lecture and two hours of lab.

### ***GEOL 1002A Historical Geology Lecture: 3 semester hours***

Study of changes in geography, climate and life through geological time; origin of continents, ocean basins, and mountains in light of continental drift. Same as GEOL 1002 without the laboratory.

### ***GEOL 1053 Oceanography: 3 semester hours***

The atmospheric and ocean circulations; the chemistry and geology of the deep sea; and their effects on the distribution of marine organisms.

## Physics Courses

### **PHYSICS 1001 How Things Work: 3 semester hours**

Can baseball players hit home runs more easily when the weather is hot and humid? This course provides a practical introduction to understanding common life experiences by using physical intuition and basic ideas of physics. Powerful scientific principles are demonstrated through topics ranging from airplane wings to compact disk players, from lightning strikes to lasers.

### **PHYSICS 1011 Basic Physics I: 4 semester hours**

Prerequisites: MATH 1030 and MATH 1035, MATH 1100 or MATH 1800 strongly recommended. A course specifically designed for students in health and life sciences covering the topics in classical mechanics such as kinematics, Newton's laws, energy, momentum and oscillations. This course will not fulfill the PHYSICS 2111 requirement for physics, chemistry, and engineering majors. Three classroom hours and two hours of laboratory per week.

### **PHYSICS 1011A Basic Physics I: 3 semester hours**

Prerequisites: MATH 1030 and MATH 1035, MATH 1100 or MATH 1800 strongly recommended. A course specifically designed for students in health and life sciences, covering the topics of classical mechanics, heat and sound. Will not fulfill the PHYSICS 2111 requirement for physics, chemistry, and engineering majors. Three classroom hours per week. There is no laboratory associated with this course.

### **PHYSICS 1012 Basic Physics II: 4 semester hours**

Prerequisites: PHYSICS 1011. A continuation of PHYSICS 1011. A course specifically designed for students in health and life sciences covering electricity, magnetism, light, optics and waves. This course will not fulfill the PHYSICS 2112 requirement for physics, chemistry, and engineering majors. Three classroom hours and two hours of laboratory per week.

### **PHYSICS 1012A Basic Physics II: 3 semester hours**

Prerequisites: PHYSICS 1011 or PHYSICS 1011A. A continuation of PHYSICS 1011. A course specifically designed for students in health and life sciences covering the topics of electricity, magnetism, light and radiation. Will not fulfill the PHYSICS 2112 requirement for physics, chemistry, and engineering majors. Three classroom hours. There is no laboratory associated with this course.

### **PHYSICS 1099 Windows On Physics: 1 semester hour**

A seminar designed to introduce physics majors to research areas in physics and physics-related fields in the Department of Physics and Astronomy. In addition to fundamental areas of physics, the areas of astrophysics, biophysics, materials science, and nanotechnology will be included. Career opportunities for students with physics degrees will be discussed and the physics curriculum will be reviewed. The course meets weekly and is required of all physics majors and minors who are transfer students.

### **PHYSICS 2111 Physics: Mechanics And Heat: 5 semester hours**

Prerequisites: MATH 1900 (may be taken concurrently). An introduction to the phenomena, concepts, and laws of mechanics and heat for physics majors and students in other departments. Three classroom hours, one hour discussion, and two hours of laboratory per week.

### **PHYSICS 2112 Physics: Electricity, Magnetism, And Optics: 5 semester hours**

Prerequisites: PHYSICS 2111 and MATH 2000 (MATH 2000 may be taken concurrently). A phenomenological introduction to the concepts and laws of electricity and magnetism, electromagnetic waves, optics and electrical circuits for physics majors and students in other departments. Three hours of lecture, one hour of discussion, and two hours of laboratory per week.

### **PHYSICS 3200 Mathematical Methods Of Theoretical Physics: 3 semester hours**

Prerequisites: PHYSICS 2112 and MATH 2000 Mathematical techniques specifically used in the study of mechanics, electricity, magnetism, and quantum physics are developed in the context of various physical problems. Course includes the topics of vector calculus, coordinate systems, the Laplace equation and its solutions, elementary Fourier analysis, & complex variables. Applications to electrostatics, mechanics, and fluid dynamics are emphasized. Three hours of lecture per week.

### **PHYSICS 3221 Mechanics: 3 semester hours**

Prerequisites: PHYSICS 3200 and MATH 2020 (MATH 2020 may be taken concurrently) Advanced course covering single and many particle dynamics, rigid-body dynamics, and oscillations. Variational principles and Hamiltonian formulations of mechanics are covered. Three hours of lecture per week.

### **PHYSICS 3223 Electricity And Magnetism: 3 semester hours**

Prerequisites: PHYSICS 3200 and MATH 2020 (MATH 2020 may be taken concurrently) Advanced course covering the rigorous development, from basic laws, of Maxwell's equations for electromagnetic fields along with applications of these equations. Topics covered are electrostatics and electrodynamics including currents, magnetic fields, motion of charged particles in fields and an introduction to electromagnetic waves. Three hours of lecture per week.

### **PHYSICS 3231 Introduction To Modern Physics I: 3 semester hours**

Prerequisites: PHYSICS 2111, PHYSICS 2112, and MATH 2020 (may be taken concurrently) and PHYSICS 3200 strongly recommended. Photons and the wave nature of particles, wave mechanics, Schrodinger equation, with applications to atomic physics; and radiation; the physics of solids; elementary particles; special relativity; health physics. Three hours of lecture per week.

### **PHYSICS 3281 Directed Readings In Physics: 1-5 semester hours**

Prerequisite: Consent of Instructor An independent study of special topics in physics. A paper may be required on an approved topic. Topics must be substantially different. Hours arranged.

### **PHYSICS 3390 Research: 1-10 semester hours**

Prerequisite: Consent of department. Independent physics research projects arranged between student and instructor. Hours arranged.

### **PHYSICS 4305 Bayesian Data analysis for the Sciences: 3 semester hours**

Prerequisites: Consent of Instructor. This is a cross-disciplinary course in two parts. Part one covers Bayesian inference as applied to data analysis in general, with a special focus on the mathematics of model-selection in the physical and life sciences. Part two concentrates specifically on the Bayesian use of log-probability (i.e. information) measures to track order-disorder transitions in thermodynamics, and to track the evolution of sub-system correlations (via both digital and analog means) in a wide variety of complex systems. Expect weekly empirical observation exercises, and opportunities for asynchronous as well as synchronous collaboration.

### **PHYSICS 4306 Nanoscience Practicals: 1-3 semester hours**

Studies of Nanoscience characterization, synthesis, modeling techniques designed for clients of these tools, as well as for technical users interested in a current overview. Course consists of a set of 1/3 semester modules. Check with the instructor on more specialized modules, (e.g. on materials microscopy), if interested. Each module will cover instrumentation, current applications, weaknesses, and will involve lab visits for hands-on experience, weekly web interaction and classroom hours.

**PHYSICS 4308 Transmission Electron Microscopy: 3 semester hours**

Prerequisite: Consent of instructor. Course introduces students to transmission electron microscopy techniques and their applications to solving challenging materials and biological problems. Course includes fundamental principles (electron optics), electron-specimen interactions, diffraction of electrons, image formation and interpretation, image processing and analysis, energy dispersive X-ray spectroscopy, electron energy loss spectroscopy, and sample preparation of both biological and non-biological systems. Laboratory experiments will provide students "hands-on" experience with TEM operations and problem solving skills. Successful completion of the course enables students to independently operate transmission electron microscopes to perform basic research experiments. This course is ideal for students interested in ultrastructural or nanocharacterization of biological or materials systems. Two classroom hours and two hours of laboratory per week.

**PHYSICS 4309 Scanning Probe Microscopy: 3 semester hours**

Prerequisites: Consent of instructor A lecture/laboratory study of research techniques using scanning probe microscopy. Topics include atomic force microscopy, scanning tunneling microscopy, feedback control, scanning tip fabrication, scan calibrations, air/solution/vacuum imaging, image processing and analysis, near-field optical probes, metrology, and lateral force/displacement microscopy. Applications in physics, chemistry, biology, engineering and surface science are discussed. Two hours lecture and two hours laboratory per week.

**PHYSICS 4310 Modern Electronics: 3 semester hours**

An integrated recitation/laboratory study of modern analog and digital electronics with emphasis on integrated circuits. Topics include circuit elements, operational amplifiers, logic gates, counters, ac/dc converters, noise reduction, microprocessors, embedded microcontrollers, and digital processing. Three hours of lecture/laboratory per week.

**PHYSICS 4311 Advanced Physics Laboratory I: 3 semester hours**

Prerequisite: Advanced standing with at least nine completed hours of Physics at or above the 3000 level. Physics majors are introduced to the experimental techniques used in research. A student will choose and do several special problems during the semester. Six hours laboratory per week.

**PHYSICS 4323 Modern Optics: 3 semester hours**

Prerequisite: PHYSICS 3223 A study of modern optics including diffraction theory, polarization, light propagation in solids, quantum optics, and coherence.

**PHYSICS 4331 Intro To Quantum Mechanics: 3 semester hours**

Prerequisites: PHYSICS 3200 and PHYSICS 3231 Photons and the wave nature of particles; wave mechanics, Schrodinger equation, operator and matrix formulations, and Dirac notation; applications to single particle systems, atomic physics, and spectroscopy.

**PHYSICS 4341 Thermal And Statistical Physics: 3 semester hours**

Prerequisites: MATH 2000 and PHYSICS 3231. Introduction to statistical mechanics, classical thermodynamics, and kinetic theory.

**PHYSICS 4343 Selected Topics In Physics I: 3 semester hours**

Prerequisites: PHYSICS 3221, PHYSICS 3223, PHYSICS 3231, PHYSICS 4341 Topics include special phenomena for research areas such as physics of waves, biophysics, nonlinear physics, geophysical fluid dynamics and the atmospheric sciences treated by methods of advanced mechanics, electromagnetism, statistical mechanics, thermodynamics and quantum mechanics. Three hours of lecture per week.

**PHYSICS 4347 Biophysics Of Imaging: 4 semester hours**

Prerequisites: PHYSICS 3231, BIOL 1821, and BIOL 1831 An introduction to the application of physical principles to problems in medical physics and biology, with a particular focus on the biophysics of various technologies for imaging both human patients and biological macromolecules. Topics covered will include the principles of x-ray crystallography, metabolic and optical changes in the brain, NMR and fMRI, magnetoencephalography, PET imaging, the electrophysiology of EEG and ECG, dynamics in the body and brain, and dynamics in genetics. Laboratory projects on brain imaging and data analysis are an integral part of the course. Three classroom hours and two laboratory hours per week.

**PHYSICS 4350 Computational Physics: 3 semester hours**

Prerequisite: PHYSICS 3221, PHYSICS 3223, and PHYSICS 3231. Computer Analysis In Physics; Solutions Of Eigenvalue Problems; Coupled Differential Equations; And Writing Of Fortran Programs.

**PHYSICS 4351 Elementary Solid State Physics: 3 semester hours**

Prerequisites: PHYSICS 4331 Theoretical and experimental aspects of solid state physics, including one-dimensional band theory of solids; electron emission from metals and semiconductors; electrical and thermal conductivity of solids.

**PHYSICS 4353 Physics Of Fluids: 3 semester hours**

Prerequisites: PHYSICS 3221, PHYSICS 3223, and PHYSICS 4341, or consent of instructor. Dynamical theory of gases and liquids. Course covers the mathematical development of physical fluid dynamics with contemporary applications.

**PHYSICS 4365 Introduction To Plasma Physics: 3 semester hours**

Prerequisites: PHYSICS 3223 and PHYSICS 4341 A study of the nonlinear collective interactions of ions, electrons, and neutral molecules with each other and with electric and magnetic fields. Topics include plasma confinement and stability, electrical discharges and ionization, kinetic theory of plasma transport, plasma waves and radiation, and controlled fusion. Solutions of the Boltzmann, Fokker-Planck, and Vlasov equations are discussed and methods of advanced electromagnetism and statistical physics are utilized.

**PHYSICS 4370 Relativity And Cosmology: 3 semester hours**

Prerequisites: PHYSICS 3221, PHYSICS 3223 and PHYSICS 3231 An introduction to Einstein's general theory of relativity. Topics will include special relativity in the formalism of Minkowski's four dimensional space-time, Principle of Equivalence, Riemannian geometry and tensor analysis, Einstein Field Equation and cosmology.

**PHYSICS 4381 Directed Readings In Physics: 1-10 semester hours**

Prerequisite: Consent of instructor. An independent study of special topics in physics for senior undergraduates or graduate students.

**PHYSICS 5307 Advanced Scanning Electron Microscopy: 3 semester hours**

Prerequisites: Consent of instructor. This Course introduces students to advanced scanning electron microscopy techniques and their applications to solving challenging materials and biological problems. Course includes electron optics, electron-specimen interactions, image formation and interpretation, compositional analysis by energy dispersive x-ray spectroscopy, and sample preparation of both biological and non-biological systems. Laboratory experiments will provide students "hands-on" experience with SEM operations and problem-solving skills. Successful completion of the course enables students to independently operate scanning electron microscopes to perform research experiments. Two classroom hours and two hours of laboratory per week.



**PHYSICS 5308 Transmission Electron Microscopy: 3 semester hours**

Prerequisites: PHYSICS 5307 or consent of instructor. A lecture/laboratory study of transmission electron microscopy (TEM) in conventional, analytical, and phase-contrast (high resolution) applications. Course includes advanced electron optics and image formation, defect structures, specimen preparation, contrast theory, diffraction/periodicity analysis, and electron energy loss/x-ray spectroscopy. Two hours lecture and two hours laboratory per week.

**PHYSICS 5345 Nonlinear Dynamics And Stochastic Processes: 3 semester hours**

Prerequisites: PHYSICS 3221 and PHYSICS 4341 and consent of instructor. Dynamical systems; theory of oscillations; introduction to bifurcation theory and chaos in dissipative systems with applications in physics and biology; introduction to stochastic processes with applications in physics, chemistry and biology; dynamics of nonlinear systems perturbed by noise; noise-induced phase transitions; linear and nonlinear time series analysis. Three classroom hours per week.

**PHYSICS 5357 Fundamental Particles and Forces: 3 semester hours**

Prerequisites: PHYSICS 3223, PHYSICS 3231, and PHYSICS 4331, may be taken concurrently Introduction to nuclear and particle physics. Nuclear phenomenology and models; high energy particle accelerators and detectors; phenomenology of strong, electromagnetic and weak interactions; symmetry principles; quark compositions of strongly interacting baryons and mesons; gauge theories and the standard model of particle interactions; grand unification.

**PHYSICS 5402 Introduction To Mathematical Physics: 3 semester hours**

Prerequisites: Graduate standing in physics or consent of instructor A course covering mathematical techniques as applied in advanced theoretical physics including generalized vector spaces and their dual spaces, linear operators and functionals, generalized functions, spectral decomposition of operators, tensor analysis, and complex variables. Three hours of lecture per week.

**PHYSICS 5403 Principles Of Mathematical Physics: 3 semester hours**

Prerequisites: Graduate standing in physics or consent of instructor Boundary value problems; Strum-Liouville theory and orthogonal functions; Green's function techniques; and introduction to group theory with emphasis on representations of Lie Algebras. Three hours of lecture per week.

**PHYSICS 6300 Master's Thesis: 3 semester hours**

Prerequisite: Consent of Instructor. Thesis work under the supervision of a faculty member. The course is designed for those students intending to present a thesis as part of their M.S. program. Students who do not write a thesis cannot apply PHYSICS 6300 to a degree. This course transfers to the Cooperative Ph.D. program as three research credits.

**PHYSICS 6400 Special Problems: 1-5 semester hours**

Must have faculty mentor and approval of Department Chairperson. A study of special topics in physics for graduate students.

**PHYSICS 6401 Special Topics: 1-4 semester hours**

Prerequisite: Consent of instructor. This course is designed to give the department an opportunity to test a new course.

**PHYSICS 6409 Theoretical Mechanics I: 3 semester hours**

Prerequisite: PHYSICS 3221 Classical mechanics, methods of Newton, Lagrange, and Hamilton applied to motion of particles and rigid bodies, elasticity, hydrodynamics.

**PHYSICS 6410 Seminar: 1-3 semester hours**

Prerequisite: Approval of Department Chair. Discussion of current topics.

**PHYSICS 6411 Electrodynamics I: 3 semester hours**

Prerequisite: PHYSICS 3223. A rigorous development of the fundamentals of electromagnetic fields and waves. Electrostatics, magnetostatics, Maxwell's equations, Green's functions, boundary value problems, multipoles, conservation laws.

**PHYSICS 6413 Statistical Mechanics: 3 semester hours**

Prerequisite: PHYSICS 4331, PHYSICS 4341. A study of statistical ensembles; Maxwell-Boltzmann, Fermi-Dirac and Einstein-Bose distribution laws, application to some physical systems.

**PHYSICS 6423 Electrodynamics II: 3 semester hours**

Prerequisite: PHYSICS 6411. A Continuation of PHYSICS 6411. Applications of time-dependent Maxwell's equations to such topics as plasmas, wave guides, cavities, radiation: fields of simple systems and multiples. Relativity: covariant formulation of Maxwell's equations and conservation laws, fields of uniformly moving and accelerated charges.

**PHYSICS 6461 Quantum Mechanics I: 3 semester hours**

Prerequisite: PHYSICS 4331. A study of the Schroedinger wave equation, operators and matrices, perturbation theory, collision and scattering problems.

**PHYSICS 6463 Quantum Mechanics II: 3 semester hours**

Prerequisite: PHYSICS 6461. Continuation of PHYSICS 6461. To include such topics as Pauli Spin-Operator Theory, classification of atomic states, introduction to field quantization, and Dirac Electron Theory.

**PHYSICS 6481 Physics Of Solid State: 3 semester hours**

Prerequisite: PHYSICS 6461. Crystal symmetry, point and space groups, lattice vibrations, phonons, one-electron model, Hartee-Fock approximation, elementary energy band theory, transport properties, the Boltzmann equation, introduction to superconductivity, semiconductors and magnetism.

**PHYSICS 6490 Research: 1-10 semester hours**

Prerequisite: Must have a faculty mentor and approval of the department chair. Investigations of an advanced nature leading to the preparation of a thesis or dissertation.

**PHYSICS 6495 Continuous Registration: 1-6 semester hours**

Doctoral candidates who have completed all requirements for the degree except the dissertation, and are away from the campus must continue to enroll for at least one hour of credit each registration period until the degree is completed. Failure to do so may invalidate the candidacy.

## Political Science

### General Information

#### Degrees and Areas of Concentration

The political science department offers undergraduate work leading to the B.A. degree in political science, B.S. degree in public policy and administration, and, in cooperation with the College of Education, the B.A. in political science with teacher certification and the B.S. in education with an emphasis in social studies. (See College of Education section in this Bulletin for details.) Minors in political science are available to students who are majoring in another discipline and who have a special interest in law, government, politics, and public policy.

Principal areas of concentration include urban politics, American political processes and behavior, international politics, comparative politics, public policy and administration, public law, and political theory. In many courses, emphasis is placed on the ways in which public policies are developed and administered. In addition to formal course work, internships are



available in which the student can relate classroom learning to practical field experience.

The political science department also offers graduate courses leading to the M.A. and Ph.D. in political science. The M.A. program in political science offers advanced education for those seeking careers in government, business, secondary education, community, or not-for-profit agencies. The principal foci of the 33-hour program are public administration and public policy analysis/evaluation in the local, state, national, and international areas. The flexibility of the general master's degree allows for individualized programs in urban politics, prelegal education, American national government, comparative politics, international relations, and political theory.

The Ph.D. in political science emphasizes the study of theoretic, analytic, and substantive approaches to public policy. Core courses include research methods, normative and empirical theory, and policy processes and institutions. Doctoral candidates, in consultation with the faculty, develop a policy concentration, which can be interdisciplinary. Internships, when appropriate, may be a component. All successful doctoral candidates must complete a dissertation, which makes a significant contribution to knowledge in the field.

Most graduate classes are scheduled so those employed outside the university can participate in the programs on a part-time basis. Financial assistance is available to full-time students.

## Special Interdisciplinary Degree

The Department of Political Science also cooperates with the Department of Economics in the College of Arts and Sciences and the College of Business Administration in offering a master's degree in public policy administration (MPPA). For information on the MPPA degree program, see that section in this Bulletin.

## Cooperative Programs

Political science students may also study overseas, or obtain a Certificate in International Studies, European Studies, African Studies, East Asian Studies, Latin American Studies, Women's & Gender Studies, or Writing, in conjunction with their political science major. See Certificate Programs in this Bulletin and consult with International Studies and Programs.

Research in political science is encouraged for students at all levels. Assistance is available at UMSL's Public Policy Research Centers, International Studies and Programs. The department's membership in the Interuniversity Consortium for Political and Social Research provides access to a wide range of survey data on local-state-national, comparative, and international politics. In addition, extensive research opportunities are available within the metropolitan St. Louis area. Scholarships are available for qualified students; details can be obtained from the department office.

## Learning Outcomes

- Majors in the BA learn about power, conflict and cooperation in society, within and outside government.
- Students understand the fundamentals of scientific-based inquiry, the postulating of cause-effect relationships, and the marshalling of evidence using quantitative or qualitative methods to draw conclusions about problems in politics.
- We train students to communicate information effectively.
- The BSPPA program provides knowledge and skills for real world application in the context of American institutions and structures.

- Students learn the fundamentals of administration and policymaking in the United States by acquiring skills in budgeting, personnel management, accounting, and expertise in a specific policy area.
- The M.A. in political science provides a firm grounding in scientific-based inquiry into problems in politics.
- Students learn how institutional design and economic and cultural factors shape the distribution of power and patterns of cooperation and conflict in society within and outside of government.
- Students master the postulating of cause-effect relationships, and the marshalling of evidence using quantitative or qualitative methods to test hypotheses about problems in politics.
- The Ph.D. in political science trains students to become independent researchers who may apply their skills in the academic, government, non-profit, and business worlds.
- Students master the skills to frame researchable questions that make original contributions to empirical and theoretical knowledge about problems in politics.
- Students learn to rigorously specify cause-effect relationships, and to master techniques for marshalling evidence using quantitative and qualitative methods to test competing hypotheses about problems in politics.

## Faculty

Political Science faculty are nationally known scholars in their respective fields, dedicated to high-quality teaching and education. Department faculty members have received distinctions such as the Curators' Research Award, Curators' Distinguished Teaching Professor Award, Presidential Award for Research and Creativity, Chancellor's Award for Research and Creativity, Chancellor's Award for Excellence in Teaching, Governor's Teaching Awards, Burlington Northern Faculty Achievement Award, Emerson Electric Excellence in Teaching Award and E. Desmond Lee Endowed Professor Award. They have received research grants from such prestigious agencies as the John F. Kennedy Library, the Ford Foundation, the MacArthur Foundation, the National Science Foundation, the German Marshall Fund, the United States Department of Education, the Fulbright Program, and the United States Institute for Peace. The faculty has published its research in more than 80 books and 400 articles in scholarly journals and is devoted to using its research findings to improve teaching.

In addition to helping students become more knowledgeable about politics and public policy, political science course work provides rich opportunities for students to develop a variety of practical skills--such as information-gathering and processing, analysis, research, decision making and oral and written communication--that are transferable to many career paths and job settings after graduation.

## Undergraduate Studies

### General Education Requirements

Majors must satisfy the university and college general education requirements (<http://bulletin.umsi.edu/generaleducationrequirements>). Political science courses may be used to satisfy the social sciences requirement. The foreign language requirement for the B.A. degree may be satisfied in any language.

### Departmental Honors

The department awards honors to students having a grade point average (GPA) of 3.2 in the major, an overall GPA of 3.2 (except in extraordinary

circumstances), and successfully completed an honors thesis, project, or report.

## Degree Requirements

### Bachelor of Arts in Political Science

All majors must complete at least 36, but not more than 45, hours of political science. All students are required to take the following core curriculum:

#### Political Science

POL SCI 1100 (p. Introduction To American Politics 218)	3
POL SCI 1500 (p. Introduction To Comparative Politics 218)	3
POL SCI 2000 (p. Political Analysis 218)	3
POL SCI 3950 (p. Senior Seminar In Political Science 218)	3
<hr/>	
Total Hours	12

Majors are urged to take POL SCI 1100 (p. 218), POL SCI 1500 (p. 218), and as early as possible since these courses are designed to provide a substantive foundation as well as conceptual and analytical tools for subsequent course work. Because the seminar topics in POL SCI 3950 (p. 218) change from semester to semester, the course can be repeated as an elective. All majors must take at least one Seminar in Political Science.

Students also must complete at least one course in four of the following political science areas:

- Public Law (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level)
- American Politics (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).
- Public Policy and Administration (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).
- Comparative Politics (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).
- Political Theory (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).
- International Relations (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).
- Methodology (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).

At least 15 hours of political science course work must be at the 3000 or 4000 level, including POL SCI 3950 (p. 218) Senior Seminar. B.A. degree students may take a maximum of 3 hours of political science on a satisfactory/ unsatisfactory basis; this can include any course except the required courses in the core curriculum.

Note: As early as possible, students should determine their educational objectives and consult with an adviser regarding a plan of study. Those students who are uncertain of their future plans are urged to include in their 36-45 hours of political science a broad set of courses in American politics, public policy and administration, public law, comparative politics, international politics, political theory, and methodology. In addition to this general course of study in political science, the department offers B.A.

degree students several specialized programs of study in political science geared to various student academic and career interests.

## Graduate School Preparation

This program is designed for students planning to pursue graduate studies in political science, particularly the Ph.D. degree, with the aim of a career as either an academic or practitioner (working as a researcher, policy analyst, or in some other capacity calling for advanced knowledge and skills). In addition to the core curriculum and common requirements for all political science majors, students are advised to:

1. take as many political science courses at the 2000 and 3000 or 4000 level as possible in a variety of areas (public law, American politics, comparative and international politics, etc.),
2. complete a departmental honors project based on independent research and writing in POL SCI 3900, Special Readings, and
3. give special consideration to courses in normative political theory (such as POL SCI 2620, Modern Political Thought) and research methods (such as , Introduction to Policy Research, which is a graduate course open to undergraduates with Graduate School approval).

Students are also encouraged to take course work outside the department in microeconomics, macroeconomics, and statistics.

## Legal Studies

This is an ideal program of study for double majors in political science and criminal justice or for any student interested in law school and a career in the law. In addition to the core curriculum and common requirements for all political science majors, students are advised to take:

POL SCI 1200	Foundations Of Law: An Introduction To Legal Studies	3
Select at least four of the following:		12
POL SCI 2260	Law, Politics and Society	
POL SCI 2280	Judicial Politics And Policy	
POL SCI 2290	Gender And The Law	
POL SCI 2650	American Political Thought	
POL SCI 2900	Studies In Political Science (when appropriate)	
POL SCI 3200	Constitutional Law	
POL SCI 3210	Civil Liberties	
POL SCI 3260	The Supreme Court	
POL SCI 3900	Special Readings (when appropriate)	
POL SCI 3940	Public Affairs Internship (when appropriate)	
POL SCI 4850	International Law	
<hr/>		
Total Hours		15

Students are also advised to take political science course work that gives them a strong background in American political institutions and processes. Those students considering practicing law in the international arena should take course work in comparative and international politics. Political science course work may be supplemented by course work in criminal justice and criminology.

## American Politics

Designed for those students interested in careers in communications, education, business, social work, political consulting, and other fields requiring knowledge of American urban, state, and national politics and

institutions. Education majors planning to teach in the social studies field, communications majors planning on a career in journalism, or business majors thinking about working in corporate relations may especially wish to consider a double major in political science with a focus in this area. In addition to the core curriculum and common requirements for all majors, students are advised to take:

<b>Select at least five of the following:</b>	15
POL SCI 2280 Judicial Politics And Policy	
POL SCI 2300 State Politics	
POL SCI 2320 African Americans And The Political System	
POL SCI 2350 Introduction To Urban Politics	
POL SCI 2380 The Politics of Gender in the United States	
POL SCI 2420 Introduction To Public Policy	
POL SCI 2650 American Political Thought	
POL SCI 2820 United States Foreign Policy	
POL SCI 2900 Studies In Political Science (when appropriate)	
POL SCI 3300 The American Presidency	
POL SCI 3330 Introduction To Political Behavior	
POL SCI 3331 Congressional Politics	
POL SCI 3340 Politics And The Media	
POL SCI 3350 Political Parties And Elections	
POL SCI 3390 Studies In American Politics	
POL SCI 3480 Environmental Politics	
POL SCI 3900 Special Readings (when appropriate)	
POL SCI 3940 Public Affairs Internship (when appropriate)	
Total Hours	15

In addition, students may wish to choose other political science courses listed below under the public policy and administration program of study. Given the growing reality of international interdependence, students should not restrict their studies completely to American politics but should take some course work in comparative and international politics as well. Depending on their specific career interest, students may wish to round out their program with course work in other social science departments such as criminal justice, communications, economics, or social work.

## Public Policy and Administration

Designed for students interested in working inside or outside government, in a career requiring familiarity with how public policies are formulated and implemented. (Students alternatively may wish to consider the B.S. in public policy and administration degree offered by the political science department.) In addition to the core curriculum and common requirements for all majors, students are advised to take:

POL SCI 2420 Introduction To Public Policy	3
Select four of the following:	12
POL SCI 2400 Public Administration	
POL SCI 2820 United States Foreign Policy	
POL SCI 2900 Studies In Political Science (when appropriate)	
POL SCI 3420 Public and NonProfit Personnel Management	
POL SCI 3440 Public and NonProfit Budgeting	
POL SCI 3450 Urban Administration	
POL SCI 3460 The Politics Of Poverty And Welfare	
POL SCI 3480 Environmental Politics	
POL SCI 3570 Gender, Ethnicity and Public Policy	

POL SCI 3900 Special Readings (when appropriate)	
POL SCI 3940 Public Affairs Internship (when appropriate)	
POL SCI 4460 Urban Planning And Politics	
POL SCI 4510 Comparative Public Policy And Administration	
Total Hours	15

Depending on career interests, students should add course work in American, comparative, or international politics. Students are encouraged to develop a policy concentration in a particular policy area, such as urban, labor, health, education, and business studies, with multidisciplinary course work taken in political science and other departments.

## International and Comparative Studies

Designed for students interested in international careers in government service (not only the U.S. State Department but also other federal government agencies), intergovernmental and non-governmental organizations, business, education, and other areas of employment. In addition to the core curriculum and common requirements for all political science majors, students are advised to take:

POL SCI 1800 World Politics	3
POL SCI 2350 Introduction To Urban Politics	3
Select at least four of the following: <sup>1</sup>	12
POL SCI 1600 Contemporary Political Ideologies	
POL SCI 2510 The Politics of European Union	
POL SCI 2520 Middle Eastern Politics	
POL SCI 2530 Political Systems Of South America	
POL SCI 2540 Political Systems Of Mexico, Central America And The Caribbean	
POL SCI 2580 African Politics	
POL SCI 2820 United States Foreign Policy	
POL SCI 2900 Studies In Political Science (when appropriate)	
POL SCI 3570 Gender, Ethnicity and Public Policy	
POL SCI 3595 Studies In Comparative Politics	
POL SCI 3690 The Marxist Heritage	
POL SCI 3830 International Political Economy	
POL SCI 3850 International Organizations And Global Problem-Solving	
POL SCI 3860 Studies In War And Peace	
POL SCI 3890 Studies In International Relations	
POL SCI 3900 Special Readings (when appropriate)	
POL SCI 3940 Public Affairs Internship (when appropriate)	
POL SCI 4510 Comparative Public Policy And Administration	
POL SCI 4850 International Law	
Total Hours	18

<sup>1</sup> Some of which are international politics courses that focus on conflict and cooperation between countries, and some of which are comparative politics courses that focus on political, economic, and social change within countries.

Students interested in working for the U.S. Foreign Service, American-based multinational companies, and nonprofit organizations should also take course work that familiarizes them with the American political system and how public policy is made. Students should explore the various

interdisciplinary area studies and international studies certificate programs offered through the Center for International Studies.

## Bachelor of Science in Public Policy and Administration

The BSPA degree has three emphasis areas. The first is a public administration track, which emphasizes management in both the public and nonprofit sectors; it may produce a terminal degree or be a precursor to graduate training. The second is a public policy track in which a student may focus on a particular policy area and also acquire specialized analytic training and research skills, in preparation for relevant entry-level jobs in the public or the voluntary sector as well as in certain parts of the private sector. The third emphasis area focuses explicitly on the administrative and leadership concerns of organizations in the nonprofit sector, which constitutes a growing field of research and employment opportunities.

All BSPA majors must complete at least 33, but no more than 45, hours in political science. The following core curriculum is required of all BSPA majors:

### Political Science

POL SCI 1100	Introduction To American Politics	3
POL SCI 1500	Introduction To Comparative Politics	3
POL SCI 2000	Political Analysis	3
POL SCI 2400	Public Administration	3
POL SCI 2420	Introduction To Public Policy	3
POL SCI 3940	Public Affairs Internship	1-6
POL SCI 3950	Senior Seminar In Political Science	3
ECON 1001	Principles Of Microeconomics	3
ECON 1002	Principles Of Macroeconomics	3
CRIMIN 2220	Statistical Analysis In Criminology And Criminal Justice	4
or SOC 3220	Social Statistics	
or ECON 3100	Economic Statistics	
Total Hours		29-34

In addition, students must provide a demonstration of computer proficiency through one of the following:

- INFSYS 1800 Computers and Information Systems, extension courses, or other study approved by the BSPA coordinator.
- BSPA students may take a maximum of 3 hours of political science on a satisfactory/ unsatisfactory basis, except for the following (which may not be taken on a satisfactory/unsatisfactory basis):

POL SCI 1100	Introduction To American Politics	3
POL SCI 1500	Introduction To Comparative Politics	3
POL SCI 2400	Public Administration	3
POL SCI 2000	Political Analysis	3
POL SCI 2420	Introduction To Public Policy	3
POL SCI 3940	Public Affairs Internship	1-6
POL SCI 3950	Senior Seminar In Political Science	3
POL SCI 1100	Introduction To American Politics	3
POL SCI 1500	Introduction To Comparative Politics	3
POL SCI 2400	Public Administration	3
POL SCI 2000	Political Analysis	3

POL SCI 2420	Introduction To Public Policy	3
POL SCI 3940	Public Affairs Internship	1-6
POL SCI 3950	Senior Seminar In Political Science	3

## Public Administration Emphasis Area

In addition to the core curriculum requirements for all BSPA majors, students in the public administration emphasis area are required to complete the following courses:

POL SCI 3420 (p. 218)	Public and NonProfit Personnel Management	3
POL SCI 3440 (p. 218)	Public and NonProfit Budgeting	3
POL SCI 2400 (p. 218)	Public Administration	3
Select two of the political science courses listed under policy and institutions courses below.		6
Select at least two additional elective courses chosen from among that list or any other political science offerings.		6
Total Hours		21

## Public Policy Emphasis Area

In addition to the core curriculum requirements for all BSPA majors, students in the public policy emphasis area must take four political science courses, preferably selected from the policy and institutions courses listed below but which may include other political science course offerings as well.

### Policy and Institutions Courses

Select four of the following:		12
POL SCI 1450 (p. 218)	Introduction To Labor Studies	
POL SCI 2280 (p. 218)	Judicial Politics And Policy	
POL SCI 2300 (p. 218)	State Politics	
POL SCI 2350 (p. 218)	Introduction To Urban Politics	
POL SCI 3300 (p. 218)	The American Presidency	
POL SCI 3331 (p. 218)	Congressional Politics	
POL SCI 3430 (p. 218)	Union Leadership And Administration	
POL SCI 3450 (p. 218)	Urban Administration	
POL SCI 3460 (p. 218)	The Politics Of Poverty And Welfare	
POL SCI 3480 (p. 218)	Environmental Politics	
POL SCI 4460 (p. 218)	Urban Planning And Politics	
POL SCI 4510 (p. 218)	Comparative Public Policy And Administration	
Other political science course offerings.		
Total Hours		12



Students will adopt a policy concentration of at least 15 credit hours. Possible areas of specialization include, but are not limited to, environmental policy, government and business, society and the legal system, urban policy, labor studies, health care, human services, and nonprofit service provision. In fulfilling the concentration requirement, students, in consultation with the BSPA coordinator, will select courses from related disciplines in addition to taking two more political science courses related to the policy area.

## Nonprofit Emphasis Area

In addition to the core curriculum requirements for all BSPA majors, students in the nonprofit emphasis area are required to complete the following courses:

POL SCI 3420 (p. Public and NonProfit Personnel Management 218)	3
POL SCI 3440 (p. Public and NonProfit Budgeting 218) or POL SCI 2400 Public Administration (p. 218)	3
POL SCI 3700 (p. NonProfit Organizations and Public Policy 218)	3
POL SCI 3710 (p. NonProfits, Civil Society and Volunteerism 218)	3
<b>Total Hours</b>	<b>12</b>

In addition, the Public Affairs Internship (POL SCI 3940 (p. 218)) required for the BSPPA must be conducted through a nonprofit organization.

Note: Students considering the B.S. in public policy and administration should see a political science adviser as early as possible to plan their program.

## Requirements for the Minors

A general minor in political science can be arranged, as well as specialized minors in eight different subfields of the discipline. Interested students should see a faculty adviser to plan a coherent program of study as a minor field.

Students must achieve a cumulative 2.0 GPA in the political science courses chosen to qualify for the minor. Students may count no more than 3 hours in political science taken on a satisfactory/unsatisfactory basis toward the minor. Students taking an internship POL SCI 3940 (p. 218) may count no more than three hours of the internship toward the minor.

## Minor in Political Science, General

Fifteen hours, chosen from among all political science courses.

## Minor in American Politics

Select five of the following:	15
POL SCI 1100 Introduction To American Politics (p. 218)	
POL SCI 2280 Judicial Politics And Policy (p. 218)	
POL SCI 2300 State Politics (p. 218)	
POL SCI 2320 African Americans And The Political System (p. 218)	

POL SCI 2350 Introduction To Urban Politics (p. 218)	
POL SCI 2380 The Politics of Gender in the United States (p. 218)	
POL SCI 2420 Introduction To Public Policy (p. 218)	
POL SCI 2650 American Political Thought (p. 218)	
POL SCI 2820 United States Foreign Policy (p. 218)	
POL SCI 3260 The Supreme Court (p. 218)	
POL SCI 3300 The American Presidency (p. 218)	
POL SCI 3331 Congressional Politics (p. 218)	
POL SCI 3330 Introduction To Political Behavior (p. 218)	
POL SCI 3340 Politics And The Media (p. 218)	
POL SCI 3350 Political Parties And Elections (p. 218)	
POL SCI 3390 Studies In American Politics (p. 218)	
POL SCI 3900 Special Readings (when appropriate) (p. 218)	
POL SCI 3940 Public Affairs Internship (when appropriate) (p. 218)	
<b>Total Hours</b>	<b>15</b>

## Minor in Comparative Politics

POL SCI 1500 (p. Introduction To Comparative Politics 218)	3
Select four of the following:	12
POL SCI 2500 Comparing Different Worlds (p. 218)	
POL SCI 2510 The Politics of European Union (p. 218)	
POL SCI 2530 Political Systems Of South America (p. 218)	
POL SCI 2540 Political Systems Of Mexico, Central America And The Caribbean (p. 218)	
POL SCI 2580 African Politics (p. 218)	
POL SCI 3570 Gender, Ethnicity and Public Policy (p. 218)	
POL SCI 3595 Studies In Comparative Politics (p. 218)	
POL SCI 3900 Special Readings (when appropriate) (p. 218)	
POL SCI 4510 Comparative Public Policy And Administration (p. 218)	

**Total Hours** 15

## Minor in International Relations

Select five of the following:	15
POL SCI 1800 World Politics (p. 218)	
POL SCI 1820 Global Issues (p. 218)	
POL SCI 2520 Middle Eastern Politics (p. 218)	
POL SCI 2820 United States Foreign Policy (p. 218)	
POL SCI 3830 International Political Economy (p. 218)	
POL SCI 3850 International Organizations And Global Problem-Solving (p. 218)	
POL SCI 3860 Studies In War And Peace (p. 218)	
POL SCI 3890 Studies In International Relations (p. 218)	
POL SCI 3900 Special Readings (when appropriate) (p. 218)	
POL SCI 3940 Public Affairs Internship (when appropriate) (p. 218)	
POL SCI 4850 International Law (p. 218)	
Total Hours	15

## Minor in Nonprofit Administration

Select five of the following:	15
POL SCI 3420 Public and NonProfit Personnel Management	
POL SCI 3440 Public and NonProfit Budgeting	
POL SCI 2400 Public Administration	
POL SCI 3700 NonProfit Organizations and Public Policy	
POL SCI 3710 NonProfits, Civil Society and Volunteerism	
POL SCI 3940 Public Affairs Internship (must be conducted through a nonprofit organization)	
Total Hours	15

## Minor in Political Theory

Select five of the following:	15
POL SCI 1600 Contemporary Political Ideologies (p. 218)	
POL SCI 2610 Ancient And Medieval Political Thought (p. 218)	
POL SCI 2620 Modern Political Thought (p. 218)	
POL SCI 2650 American Political Thought (p. 218)	
POL SCI 3690 The Marxist Heritage (p. 218)	
POL SCI 3900 Special Readings (when appropriate) (p. 218)	
Total Hours	15

## Minor in Public Administration

POL SCI 2400 (p. Public Administration 218)	3
Select four of the following:	12
POL SCI 2420 Introduction To Public Policy (p. 218)	
POL SCI 3420 Public and NonProfit Personnel Management (p. 218)	
POL SCI 3440 Public and NonProfit Budgeting (p. 218)	
POL SCI 3450 Urban Administration (p. 218)	
POL SCI 3900 Special Readings (when appropriate) (p. 218)	
POL SCI 3940 Public Affairs Internship (when appropriate) (p. 218)	
POL SCI 4460 Urban Planning And Politics (p. 218)	
POL SCI 4510 Comparative Public Policy And Administration (p. 218)	
Total Hours	15

## Minor in Public Law

Select five of the following:	15
POL SCI 1200 Foundations Of Law: An Introduction To Legal Studies (p. 218)	
POL SCI 2260 Law, Politics and Society (p. 218)	
POL SCI 2280 Judicial Politics And Policy (p. 218)	
POL SCI 2290 Gender And The Law (p. 218)	
POL SCI 3200 Constitutional Law (p. 218)	
POL SCI 3210 Civil Liberties (p. 218)	
POL SCI 3260 The Supreme Court (p. 218)	
POL SCI 3900 Special Readings (when appropriate) (p. 218)	
POL SCI 4850 International Law (p. 218)	
Total Hours	15

## Minor in Public Policy

POL SCI 2420 (p. Introduction To Public Policy 218)	3
Select four of the following:	12
POL SCI 2300 State Politics (p. 218)	
POL SCI 2350 Introduction To Urban Politics (p. 218)	
POL SCI 2400 Public Administration (p. 218)	

POL SCI 3300 The American Presidency (p. 218)	
POL SCI 3440 Public and NonProfit Budgeting (p. 218)	
POL SCI 3450 Urban Administration (p. 218)	
POL SCI 3460 The Politics Of Poverty And Welfare (p. 218)	
POL SCI 3480 Environmental Politics (p. 218)	
POL SCI 3570 Gender, Ethnicity and Public Policy (p. 218)	
POL SCI 3900 Special Readings (when appropriate) (p. 218)	
POL SCI 3940 Public Affairs Internship (when appropriate) (p. 218)	
POL SCI 4460 Urban Planning And Politics (p. 218)	
POL SCI 4510 Comparative Public Policy And Administration (p. 218)	
<b>Total Hours</b>	<b>15</b>

### Minor in Urban Politics

POL SCI 2350 (p. Introduction To Urban Politics 218)	3
Select four of the following:	12
POL SCI 2320 African Americans And The Political System (p. 218)	
POL SCI 3450 Urban Administration (p. 218)	
POL SCI 3460 The Politics Of Poverty And Welfare (p. 218)	
POL SCI 3900 Special Readings (when appropriate) (p. 218)	
POL SCI 3940 Public Affairs Internship (when appropriate) (p. 218)	
POL SCI 4460 Urban Planning And Politics (p. 218)	
<b>Total Hours</b>	<b>15</b>

### Minor in Women and Politics

POL SCI 1550 (p. Women And Politics In The Developing World 218)	3
Select four of the following:	12
POL SCI 2290 Gender And The Law (p. 218)	
POL SCI 2380 The Politics of Gender in the United States (p. 218)	
POL SCI 3460 The Politics Of Poverty And Welfare (p. 218)	
POL SCI 3570 Gender, Ethnicity and Public Policy (Comparative) (p. 218)	
POL SCI 3590 Women and Leadership World-Wide: Breaking the Glass Ceiling (p. 218)	

POL SCI 3900 Special Readings (consent of instructor required) (p. 218)	
<b>Total Hours</b>	<b>15</b>

Outstanding BSPPA students may want to consider the BSPPA/MPPA 2+3 program (p. 430). This accelerated program allows students to complete a BS degree and Master of Public Policy Administration (MPPA) degree in five years. The program allows students to apply 12 of the MPPA credit hours towards the BS, reducing the overall required hours for the two degrees to 148 credit hours from the 160 credit hours required when taking the programs separately (120 are required for the BS and 40 for the MPPA). Please see the PPA section of the Bulletin for specific information.

### Undergraduate Certificate in Women, Political Leadership and Public Policy

**5 courses from among the following course options:** 15

POL SCI 1550 Women And Politics In The Developing World (p. 218)	
POL SCI 2290 Gender And The Law (p. 218)	
POL SCI 2380 The Politics of Gender in the United States (p. 218)	
ECON 2410 Work, Families, And Public Policy (p. 218)	
POL SCI 2510 The Politics of European Union (p. 218)	
POL SCI 3460 The Politics Of Poverty And Welfare (p. 218)	
POL SCI 3570 Gender, Ethnicity and Public Policy (p. 218)	
POL SCI 3590 Women and Leadership World-Wide: Breaking the Glass Ceiling (p. 218)	
POL SCI 3950 Senior Seminar In Political Science (topic specific, with consent) (p. 218)	
<b>Capstone Option</b>	<b>3</b>
POL SCI 2900 Studies In Political Science (p. 218)	
POL SCI 3900 Special Readings (p. 218)	
POL SCI 3940 Public Affairs Internship (p. 218)	
<b>Total Hours</b>	<b>18</b>

### Bachelor of Arts with Teacher Certification

For information, refer to the Secondary Education section in this Bulletin.

### Bachelor of Science in Education: Emphasis in Social Studies

The Political Science requirements are the same as for the B.A. degree except students fulfill the College of Education general education requirements rather than those of the College of Arts and Sciences. For information, refer to the College of Education section in this Bulletin.

## Career Overview

### Bachelor of Arts, Bachelor of Science, and Master of Arts in Political Science

Political science graduates have done well in obtaining appropriate employment and in pursuing graduate education. Majors develop communications and decision-making skills, learn to analyze complex policy issues, both domestic and international in scope, and have a thorough understanding of government and politics. Political science is a particularly good undergraduate major for pre-law students. Many other majors pursue graduate education in business, education, public administration, public policy administration, journalism, public relations, non-profit organizations, and many other fields.

### Graduate Studies

The department offers the MA and PhD in Political Science. Qualified students may enter the MA through two different routes, either as graduates with a baccalaureate degree or as exceptional undergraduates in the program via a 2 + 3 program.

### Master of Arts in Political Science

**Admission Requirements:** For admission, a student should have a baccalaureate degree with a minimum grade point average of 2.75 and an undergraduate background in the social sciences. The GRE is required, and scores should be submitted at the time of application. Two letters of recommendation are also requested for each student applying to the program. Students who do not meet these requirements may be admitted upon approval of the department and the dean of the Graduate School. Application materials may be obtained from and should be returned to the office of the director of admissions.

Deadlines are July 1 for the fall semester; December 1 for the winter semester; and May 1 for the summer term.

### Degree Requirements

Beyond the general requirements of the Graduate School, the department requires a minimum of 27 semester hours of course work, of which 18 hours must be at the 6400 level and 12 hours must be in core courses in political science, including:

POL SCI 6401 (p. Introduction To Policy Research 218)	3
Select three of the following:	9
POL SCI 6410 Introduction To Policy Analysis (p. 218)	
POL SCI 6420 Proseminar In Public Law (p. 218)	
POL SCI 6430 Proseminar In American Politics (p. 218)	
POL SCI 6440 Proseminar In Public Policy Administration (p. 218)	
POL SCI 6450 Proseminar In Comparative Politics (p. 218)	
POL SCI 6470 Proseminar In Urban Politics (p. 218)	

POL SCI 6480 Proseminar In International Relations (p. 218)

Total Hours 12

Students can plan their degree program to reflect the following six emphasis areas:

- American Politics
- Comparative Politics
- International Politics
- Political Process and Behavior
- Public Administration and Public Policy
- Urban and Regional Politics

Students must also select one of the following exit projects: a six-hour thesis, a six-hour internship, or six hours of additional course work and an approved paper. Students will have a mid-program review at the end of 12-15 hours of course work, at which time they will discuss their academic performance and program with a faculty committee and determine the most appropriate exit project. Each candidate is given a final oral review conducted by a faculty committee and focused on the course work completed and the student's chosen exit project.

### 2+3 B.A. and M.A. in Political Science

The 2+3 Combined BA/MA program in Political Science provides an opportunity for students of recognized academic ability and educational maturity to complete the requirements for both degrees in 5 years of full-time study.

The combined program requires a minimum of 140 credit hours of which at least 33 must be at the graduate level in political science. In qualifying for the BA, students must meet all University and College requirements. Students in the combined 2+3 who successfully complete the requirements for the MA degree will be awarded a BA degree simultaneously upon completion of at least 107 hours of undergraduate credit.

Student should apply to the Department for admission to the 2+3 combined degree program in Political Science during the semester they will complete 60 undergraduate credit hours. A cumulative grade point average of 3.0 or higher and two letters of recommendation from faculty are required. Students will be admitted to the 2+3 program under provisional status until they have completed 30 hours in that program with a grade point of 3.0 or higher. After completion of the provisional period, with the recommendation of the Graduate Director, students can be granted full admission into the 2+3 program.

Students must maintain a grade point average of 3.0 or higher throughout the combined program. Students who officially withdraw from the 2+3 combined degree program, who have successfully completed all the regular requirements for the BA degree (120 hours) will be awarded their BA degree.

### Undergraduate Requirements for Student in the 2+3 Program

#### A. The following must be completed prior to enrolling in the 2+3 program

POL SCI 1100 Introduction To American Politics	3
POL SCI 1500 Introduction To Comparative Politics	3
Select two of the following:	6



POL SCI 1600 Contemporary Political Ideologies	
POL SCI 1800 World Politics	
POL SCI 2300 State Politics	
POL SCI 2350 Introduction To Urban Politics	
POL SCI 2400 Public Administration	
POL SCI 2650 American Political Thought	
Total Hours	12

## B. Undergraduate Requirements Within the 2+3 Program

Select two of the following:	6
POL SCI 2280 Judicial Politics And Policy	
POL SCI 2620 Modern Political Thought	
POL SCI 3200 Constitutional Law	
POL SCI 3210 Civil Liberties	
POL SCI 3300 The American Presidency	
POL SCI 3331 Congressional Politics	
POL SCI 3350 Political Parties And Elections	
POL SCI 3470 Collective Bargaining	
POL SCI 3480 Environmental Politics	
Select two of the following:	6
POL SCI 2510 The Politics of European Union	
POL SCI 2520 Middle Eastern Politics	
POL SCI 2530 Political Systems Of South America	
POL SCI 2540 Political Systems Of Mexico, Central America And The Caribbean	
POL SCI 2580 African Politics	
POL SCI 3690 The Marxist Heritage (PHIL 3369; INTDSC 3690)	
POL SCI 3830 International Political Economy	
POL SCI 3850 International Organizations And Global Problem-Solving	
POL SCI 4850 International Law	
Select one additional course from B-1 or B-2 .	3
Total Hours	15

## C. Graduate Requirements

POL SCI 6401 Introduction To Policy Research	3
Select three of the following:	9
POL SCI 6420 Proseminar In Public Law	
POL SCI 6430 Proseminar In American Politics	
POL SCI 6440 Proseminar In Public Policy Administration	
POL SCI 6450 Proseminar In Comparative Politics	
POL SCI 6470 Proseminar In Urban Politics	
POL SCI 6480 Proseminar In International Relations	
Select five additional graduate Political Science classes. <sup>1</sup>	15
Select Exit Project or Internship or Thesis	6
Total Hours	33

<sup>1</sup> Students should select an emphasis in American Politics, Public Policy, Comparative Politics, Political Theory, or International Relations.

## Summary of Credits in Political Science:

- BA: 27 hours  
(12 completed in lower division courses before admission to the 2+3 program)
- MA: 33 hours at the graduate level
- TOTAL: 60 hours in Political Science classes

## Ph.D. in Political Science

The doctoral program emphasizes theoretical, analytic, and substantive approaches to public policy analysis and administration. Students are provided an opportunity to link core skills in policy analysis and political science with substantive emphasis in specific policy areas. The program is designed to prepare pre-career and mid-career students for advanced positions in policy research and administration, as well as for academic research and teaching.

## Admission Requirements

Admission and financial aid decisions are made on the basis of past academic record, intellectual ability, and career commitment and performance. Applications are accepted from students who have either baccalaureate or master's degrees. Past graduate work will be credited toward degree requirements as appropriate. Applicants must submit:

1. complete academic transcripts,
2. three letters of recommendation,
3. aptitude tests of the GRE and
4. a statement of objectives for the course of study.

Application materials may be obtained from and should be returned to the office of the director of admissions. Applications for fall semester should be submitted by February 15 and for winter semester by October 15.

Graduate Assistantships Stipends for teaching and research assistantships (nine month/20 hours per week) are awarded on a competitive basis. Out-of-state educational fees are waived for graduate assistants.

## Degree Requirements

The department requires 60 credit hours beyond the baccalaureate degree for completion of the Ph.D. To ensure sufficient background for doctoral-level policy courses, students must demonstrate appropriate competence in computing and intermediate economics during their course of study. Course requirements are as follows:

## Core courses

### (18 credit hours)

- 18 credit hours will be required in the areas of research methods, and policy process and institutions. Contact the department for specific courses.
- Additional Requirements (12 credit hours)
- In addition, students will select a minimum of 12 credit hours in public policy, theory, or process as they apply to major subfields in political science.

## Policy Concentration

### (24 credit hours)

Students, in consultation with the program director, will develop expertise in a substantive policy area. Policy concentrations (many interdisciplinary) include but are not limited to:

- American National Policy
- Urban Politics and Planning
- Comparative/International Policy
- Policy Analysis and Research Social Welfare

## Internship

(6 credit hours) optional

The Ph.D. intern program offers an opportunity to gain first-hand experience in select research and administrative positions.

## General Examination and Dissertation

Upon completion of course work, students are advanced to candidacy by successfully completing three general examinations,

1. public policy institutions, processes, and analysis,
2. methodology, and
3. the student's chosen subfield and area of policy concentration.

The degree is awarded upon completion and defense of the Ph.D. dissertation.

## Career Outlook

### Ph.D. in Political Science

The Ph.D. in political science prepares students for three career areas:

1. government leadership and management positions at the local, state, and federal levels (both for new employees and in-service employees);
2. careers in the private sector, particularly positions in public affairs, policy research, and governmental relations departments of corporations, as well as consulting firms and nonprofit organizations; and
3. research and teaching careers in academic institutions.

Requests for further information about the M.A. or Ph.D. program should be sent to the Director of Graduate Studies, Department of Political Science, University of Missouri-St. Louis, One University Blvd, 347 SSB, St. Louis, MO 63121-4499 or by e-mail: [umslpolisci@umsl.edu](mailto:umslpolisci@umsl.edu).

## Sample Four Year Plans

Political Science BA (p. 228) Public Policy and Administration BA (p. 228)

### Political Science BA

First Year		
Fall	Hours Spring	Hours
INTDSC 1003	1 POL SCI 2000	3
ENGL 1100	3 POL SCI area requirement	4
MATH 1030	3 General Education	9
POL SCI 1100	3	
POL SCI 1500	3	

General Education	3	
	<b>16</b>	<b>16</b>
<b>Second Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
POL SCI area requirement	3 POL SCI area requirement	3
Elective or minor	3 Elective or minor	3
Foreign Language 1001	5 Foreign Language 1002	5
General Education	6 General Education	3
	<b>17</b>	<b>14</b>
<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
POL SCI area requirement	4 POL SCI 3000+ level course	3
POL SCI 3000+ level course	3 Elective or minor	12
ENGL 3100	3	
Foreign Language 2101	3	
General Education	3	
	<b>16</b>	<b>15</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
POL SCI 3000+ level course	POL SCI 3000+ level course	3
Elective or minor	6 POL SCI 3950	3
General Education	6 Elective or minor	9
	<b>12</b>	<b>15</b>

Total Hours: 121

- 1 INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Public Policy and Administration BA

<b>First Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
INTDSC 1003 <sup>1</sup>	1 POL SCI 2000	3
ENGL 1100	3 POL SCI 2400	3
MATH 1030	3 ECON 1002	3
POL SCI 1100	3 General Education	6
POL SCI 1500	3	
ECON 1001	3	
	<b>16</b>	<b>15</b>
<b>Second Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
POL SCI 2420	3 POL SCI Policy and Institutions course	3

Foreign Language 1001	5 POL SCI course	3
General Education	6 Foreign Language 1002	5
Elective or minor	3 General Education	3
	<b>17</b>	<b>14</b>
<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
POL SCI 3420	3 POL SCI Policy and Institutions course	3
POL SCI 3440	3 POL SCI course	3
ENGL 3100	3 CRIMIN 2220, SOC 3220, or ECON 3100	3-4
Foreign Language 2101	3 General Education	3
Elective or minor	3 Elective or minor	3
	<b>15</b>	<b>15-16</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
POL SCI 3940	3 ACCTNG 2400	3
INFSYS 1800	3 POL SCI 3950	3
General Education	3 General Education	3
Elective or minor	6 Elective or minor	6
	<b>15</b>	<b>15</b>

Total Hours: 122-123

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Courses

### **POL SCI 1100 Introduction To American Politics: 3 semester hours**

Introduction to basic concepts of government and politics with special reference to the United States, but including comparative material from other systems. Course fulfills the state requirement.

### **POL SCI 1200 Foundations Of Law: An Introduction To Legal Studies: 3 semester hours**

Same as CRIMIN 1200. As a broad liberal-arts approach to the study of law, this course is designed to familiarize students with legal ideas, legal reasoning, and legal processes. It also provides comparative and historical perspectives on law that will help explain legal diversity and legal change. Finally, it offers opportunities to explore some of the persistent issues in law and legal theory: for example, issues about the sources of law, the responsibilities of the legal profession, or the relative merits of the adversary system.

### **POL SCI 1450 Introduction To Labor Studies: 3 semester hours**

This course covers many topics important to the role of unions in the American political system and American society from a labor perspective. Topics include the role of workers in current and future times, unions' institutional structure, collective bargaining strategies and obstacles for union organizing, recent union campaigns, labor's political role, and the relationship between labor and the media.

### **POL SCI 1500 Introduction To Comparative Politics: 3 semester hours**

This course introduces students to western and non-western systems. It examines similarities and differences in the basic political ideologies, structures, economies, social institutions and governmental processes of developed and developing countries. It also provides frameworks for understanding the cultures of the world that are the basis for formal economic and political institutions. In addition, the course examines the role of non-state institutions, including trans-national ones, in shaping national policies. It uses case studies from Africa, Asia, Latin America, as well as Europe, to enhance student understanding of comparative politics. (This course fulfills the cultural diversity requirement.)

### **POL SCI 1550 Women And Politics In The Developing World: 3 semester hours**

Women play a central role in the transformation of political, economic, cultural and gender relations in developing nations. This course examines the political role of women in these transformations. In particular, the course examines: 1) ways that modernity, universal education, the market economy and globalization have widened the scope of women's public activities; 2) the emergence of social movements driven by the transformation of economic and political roles brought about by the inclusion of women in the political arena; 3) the re-interpretation of religious doctrines, especially those that emphasize women's "return" to the private sphere and the legitimate denial of women's political rights. Fulfills the Cultural Diversity requirement.

### **POL SCI 1600 Contemporary Political Ideologies: 3 semester hours**

An introduction to the major political ideologies of the world today. Emphasis is placed on democracy, feminism, Marxism, and nationalism.

### **POL SCI 1800 World Politics: 3 semester hours**

An introduction to the field of international relations, covering such topics as nationalism, power, foreign policymaking, diplomacy, war, arms control and disarmament, interdependence, the regulation of conflict, and other aspects of politics among nations.

### **POL SCI 2000 Political Analysis: 3 semester hours**

An introduction to political analysis, emphasizing both the logic of inquiry and practical methods. Students learn about the construction and evaluation of theories that relate to real-world politics. They also have an opportunity for hands-on experience with qualitative and quantitative methods including graphics, descriptive statistics, cross-tabular and correlational analysis, hypothesis testing, and computer applications.

### **POL SCI 2260 Law, Politics and Society: 3 semester hours**

Prerequisites: POL SCI 1100 or POL SCI 1200 or consent of instructor. This course examines the ways in which law in America connects with politics and society. The course will cover the litigation process, access to the courts, how and why individuals and groups bring litigation to pursue political and policy goals, and how lawyers, judges and other political actors use law to solve policy problems. Attention will be placed on current legal policy issues facing American society.

**POL SCI 2280 Judicial Politics And Policy: 3 semester hours**

Prerequisites: POL SCI 1100 or POL SCI 1200 or consent of instructor  
 This course is an examination of the American state and federal legal systems. Topics examined in this course include an analysis of the structure, organization and foundation of courts. Emphasis will be placed on the role of juries, judges, attorneys, litigants, and interest groups in the judicial system. The objective of the course is to evaluate courts as political institutions and analyze the policy-making role of judges.

**POL SCI 2290 Gender And The Law: 3 semester hours**

Same as GS 2290. This course examines the ways in which laws and interpretations of the laws affect gender equality in the United States. Emphasizing how traditional roles impact both women and men historically and currently, the course highlights major pieces of legislation and court rulings related to employment, economics, education, sexual harassment, pornography, rape, reproductive rights, and domestic relations. The course stresses the impact of federal and state institutions and non-governmental influences on equality. It also addresses gender representation in the legal profession and its effect on judicial decisions. (This course satisfies State requirements in American History and Government).

**POL SCI 2300 State Politics: 3 semester hours**

Prerequisite: POL SCI 1100 Or consent of instructor. An examination of contemporary state politics in the U.S. Covers social, economic and political determinants of policies; federal-state-local relations, elections, interest groups and participation; executive legislative and judicial institutions and processes, policies and their impact. Course fulfills the state requirement.

**POL SCI 2320 African Americans And The Political System: 3 semester hours**

Prerequisites: POL SCI 1100 or consent of instructor. Examination of the status of African Americans in the context of the American political system. The course will focus on a number of issues, including: attitudes of various publics toward racial concerns; nature of problems in specific policy areas (e.g., unemployment, school desegregation, housing, poverty); representation of African Americans in governmental institutions and the private sector; and the role of African American leadership and civil rights groups in the political process. Course fulfills the state requirement.

**POL SCI 2350 Introduction To Urban Politics: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Examination of structure and process of politics in the urban community, with emphasis on their relationships to community power structures. Course fulfills the state requirement.

**POL SCI 2380 The Politics of Gender in the United States: 3 semester hours**

Same As GS 2380. Prerequisites: POL SCI 1100 or consent of instructor. This course examines the role of gender in political institutions, practices and policy in the United States, past for political equality, the relationship between gender and political participation, vote choice, and public opinion, and how legislative, executive, and judicial offices are gendered at the national, state, and local levels. (This course satisfies State requirements in American History and Government.).

**POL SCI 2400 Public Administration: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Survey of Public Administration, with reference to organization, financial administration, personnel management, judicial control of the administrative process. Course fulfills state requirement.

**POL SCI 2420 Introduction To Public Policy: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor Study of differing approaches to understanding the public policy process. Course surveys the application of social science to public issues and problems. Course fulfills the state requirement.

**POL SCI 2500 Comparing Different Worlds: 3 semester hours**

This course focuses on the role of political institutions, economic structures and social groups in explaining differences in forms of government and levels of socio-economic development. It explores in detail one or more of these themes in cases drawn from developing and developed nations.

**POL SCI 2510 The Politics of European Union: 3 semester hours**

Prerequisite: POL SCI 1500 or consent of instructor. The European Union has become the driving force in European economic and social development. This course assesses the changing nature of national identity and national sovereignty in Europe. It compares and contrasts key public policies, (single market, welfare, migration, gender mainstreaming, "democratic deficits"), along with core EU actors and institutions, and includes participation in the annual Midwest Model EU.

**POL SCI 2520 Middle Eastern Politics: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 1500 Or consent of instructor. Survey of political movements, governments, and international conflicts in the Middle East. Islam, nationalism, ideologies and economic systems will be studied. The effect of oil and the military will also be considered. Course fulfills the non-Euro-American requirement.

**POL SCI 2530 Political Systems Of South America: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. An introduction to the study of the political systems of South America. Examination of the cultural context that has shaped the political, economic, and social development of states in the region. This course satisfies the Cultural Diversity requirement.

**POL SCI 2540 Political Systems Of Mexico, Central America And The Caribbean: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. An introduction to the study of the political systems of Mexico, Central America, and the Caribbean. Examination of the cultural context that has shaped the political, economic, and social development of these countries. This course satisfies the Cultural Diversity requirement.

**POL SCI 2550 East Asian Politics: 3 semester hours**

An introduction to the study of the Chinese and Japanese political systems. Examination of the cultural context that has shaped the path of political development for both states. This course satisfies the Cultural Diversity requirement.

**POL SCI 2580 African Politics: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An introduction to the nature of societies, governments, and international relations in Africa. The course deals with forms of governance on the continent, regional groupings of states, and persistent conflicts within and among states. Problems of economic underdevelopment, food supplies, health and population trends, and cultural change are analyzed, along with the role of outside major power intervention. Fulfills the Cultural Diversity requirement.

**POL SCI 2610 Ancient And Medieval Political Thought: 3 semester hours**

Study of political thought from Plato to Machiavelli.

**POL SCI 2620 Modern Political Thought: 3 semester hours**

Study of political thought from Machiavelli to the present.



**POL SCI 2650 American Political Thought: 3 semester hours**

History of political thought in the United States from Colonial times to the present.

**POL SCI 2820 United States Foreign Policy: 3 semester hours**

Prerequisite: POL SCI 1100 or POL SCI 1500, or consent of Instructor. Examination of the factors influencing the formation and the execution of American foreign policy, with a focus on specific contemporary foreign policy issues.

**POL SCI 2900 Studies In Political Science: 3 semester hours**

Selected topics in political science.

**POL SCI 3200 Constitutional Law: 3 semester hours**

Prerequisites: POL SCI 1100, or POL SCI 1200, or consent of the instructor. Study of leading American constitutional principles regarding legislative, executive, and judicial power, federalism, the commerce clause, and economic due process as they have evolved through the important decisions of the U.S. Supreme Court. Course fulfills the state requirement.

**POL SCI 3210 Civil Liberties: 3 semester hours**

Prerequisite: POL SCI 1100, or POL SCI 1200, or POL SCI 3200, or consent of instructor. Civil rights in the American constitutional context, emphasizing freedom of religion, freedom of expression, minority discrimination, and rights of defendants. Course fulfills the state requirement.

**POL SCI 3220 Labor Law: 3 semester hours**

Prerequisites: Consent of instructor In this course, participants will examine the role of government in the regulation of labor-management relations in the United States. While the focus of the course will be on federal laws regulating private sector labor relations, parallel issues addressed in the Railway Labor Act and state public sector labor relations law will also be covered. Specific topics include the legal framework for the organization of workers, definition of prohibited or unfair labor practices of employers and unions, legal regulation of the collective bargaining process, regulation of the use of economic weapons in labor disputes, enforcement of collective bargaining agreements and the regulation of internal trade union activities.

**POL SCI 3260 The Supreme Court: 3 semester hours**

Prerequisites: POL SCI 1100, or POL SCI 1200 or consent of the instructor An examination of the role, function and assertion of power by the U.S. Supreme Court in our constitutional democracy. Topics include an historical overview of the Supreme court, the process of selecting Supreme Court Justices, life in the Court, Supreme Court decision making, Supreme Court policymaking, implementation and impact of Court decisions and the role of the Supreme Court as a national policymaker. This course fulfills the state requirement.

**POL SCI 3300 The American Presidency: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Study of constitutional, political, legislative, and administrative roles played by the American chief executive in the development of public policy. Course fulfills state requirement.

**POL SCI 3330 Introduction To Political Behavior: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An introduction to political behavior employing perspectives from both political psychology and political sociology. Subjects include political socialization, the character of public opinion, citizen participation, group dynamics, the social determination of reality, and the underlying bases of leadership and authority. Course fulfills the state requirement.

**POL SCI 3331 Congressional Politics: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An examination of the Congress of the United States, its history and evolution, its contemporary politics, and its role in the national policy-making process. Topics include candidate recruitment, campaigns and elections, representation, committees, legislative leadership, roles and norms, voting alignments, lobbyists and interest groups, oversight of administration, and House-Senate comparisons, the role of Congress in foreign policy, economic policy, social-welfare policy will be examined.

**POL SCI 3340 Politics And The Media: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An analysis of the role the media play in shaping American political life. The first part of the course examines the organizational structures, the economic and psychic incentives, and the social and professional norms that define how television and newspapers report news about public affairs. The second part then considers the nature of a mass-communications society by looking at how reality is defined, the susceptibility of mass publics to persuasion and propaganda, the peculiar form of media election campaigns, and the manner in which the media link changes the basic character of a citizenry.

**POL SCI 3350 Political Parties And Elections: 3 semester hours**

Prerequisite: POL SCI 1100 Or Consent Of Instructor. Development, Organization, Functions, Activities Of Major And Minor Political Parties, Pressure Groups, Election Administration, Especially In The United States. Course Fulfills The State Requirement.

**POL SCI 3390 Studies In American Politics: 3 semester hours**

Prerequisite: POL SCI 1100 Or Consent Of Instructor. Selected Topics In American Politics. May Be Repeated.

**POL SCI 3420 Public and NonProfit Personnel Management: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 2400 or consent of instructor. A study of personnel practices in the public and nonprofit sectors, including recruitment, job development, labor relations, and administration of equal employment/ affirmative action Programs.

**POL SCI 3430 Union Leadership And Administration: 3 semester hours**

Prerequisites: Consent of instructor This course will focus on the roles and challenges of union leadership in a changing environment. Topics will include the union leader's roles as representative, organizer and educator as well as administrative responsibilities within the union and the relationship with enterprise management in both adversarial and participatory situations. Options for leadership style and organizational models will be discussed and explored in both theory and practice. Leaders will develop their skills of motivation, speaking strategic planning and managing complex campaigns and diverse organizations.

**POL SCI 3440 Public and NonProfit Budgeting: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor Budgeting is the study of "who gets what" and who pays for it. This course examines the administration and politics of federal, state, and local government budgets. Students gain experience in interpreting budget documents and making budget choices, using electronic and other resources.

**POL SCI 3450 Urban Administration: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Study of administrative machinery and practices of metropolitan government, how metropolitan areas organize themselves to provide services, how urban policies are made and implemented, how budgeting and personnel recruitment processes operate, and how these relate to urban policies. Course fulfills state requirement.

**POL SCI 3460 The Politics Of Poverty And Welfare: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An examination of the structure of income inequality in the U.S. and public policies designed to redistribute wealth and to treat poverty. The history of welfare programs, the growth of the welfare state, and attempts to cut social spending are closely examined.

**POL SCI 3470 Collective Bargaining: 3 semester hours**

This course involves a study of collective bargaining processes including contract negotiations, contract administration, and methods for the resolution of bargaining disputes. Both theoretical and applied issues in collective bargaining will be addressed. Specific topics include the economic determination of bargaining power, legal constraints on the bargaining process, negotiation strategies and techniques, and the use of mediation and arbitration in the resolution of bargaining disputes.

**POL SCI 3480 Environmental Politics: 3 semester hours**

Prerequisites: POL SCI 1100 or consent of instructor This course examines the process of environmental policymaking and key environmental issues. Topics include national and international policies toward air and water pollution, energy use, solid and toxic waste disposal, global warming, overpopulation, and wilderness and wildlife conservation.

**POL SCI 3570 Gender, Ethnicity and Public Policy: 3 semester hours**

Prerequisite: POL SCI 1100, or POL SCI 1500, or consent of instructor. Raises the question as to whether "more women in politics," stemming from diverse economic, racial, ethnic backgrounds and age groups, will necessarily result in better policies for women and men. Compares gendered and racialized impacts of a wide array of public policies (in the areas of education, employment health care, welfare, and reproductive technologies) across a broad sample of advanced industrial societies. Analyzes the "empowerment" potential of new equality policies being generated at the international and supranational levels (e.g., in the UN and the European Union).

**POL SCI 3580 African Diasporas: Identity Politics And Transnational Communities: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. This course focuses on the role of Africa's regional and global diaspora(s) in the construction of post-modern identities, democratization and foreign policymaking in diverse countries.

**POL SCI 3590 Women and Leadership World-Wide: Breaking the Glass Ceiling: 3 semester hours**

Same as GS 3590. Prerequisites: POL SCI 1500 or consent of instructor. Compares women's day-to-day leadership and participation patterns across a wide variety of political-economic contexts, emphasizing their performance as elective and executive office holders. It examines the experiences of individual female leaders, the effect of country-specific nomination and recruitment strategies, party dynamics, and the larger political opportunity structure hindering or promoting the balanced participation of women and men in national leadership. Understanding how gender (the socially constructed meanings related to biological sex) operates within these specific contexts is a major concern.

**POL SCI 3595 Studies In Comparative Politics: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. Selected topics in comparative politics. May be repeated.

**POL SCI 3690 The Marxist Heritage: 3 semester hours**

Same as PHIL 3369. An interdisciplinary study of Marx and leading Marxists, designed to evaluate their influence on recent political, economic, and social thought and institutions.

**POL SCI 3700 NonProfit Organizations and Public Policy: 3 semester hours**

Prerequisites: POL SCI 1100; Recommended: POL SCI 2420. This course explores the roles of nonprofit organizations in public policy issues through citizen advocacy and political participation. The course begins with an overview of the scope of the nonprofit sector and then examines its political and legal foundations in the U.S. Theories about civic engagement and the rights of association are considered. Students will gain practical knowledge about direct and grassroots lobbying by nonprofit organizations. Discussion and analysis of actual advocacy campaigns carried out through nonprofit effort will be included. The course also investigates the formation of nonprofit political action committees (PACs) and other so-called 527 organizations, as well as ethical abuses of the nonprofit form for political purposes.

**POL SCI 3710 NonProfits, Civil Society and Volunteerism: 3 semester hours**

Prerequisites: POL SCI 1100 and junior standing. This course introduces basic concepts about the role of voluntary action in democratic society, especially in the context of organizations in the nonprofit sector. Theories of civil society and social capital are explored. Selected approaches to leadership are considered, in addition to the variety of motivations for giving time and resources to the pursuit of social and political change. Students will gain practical skill development in the recruitment, training and utilization of volunteers. Through study of recent case examples, students will develop an appreciation for the characteristics of effective leadership and strategic use of volunteers. In addition, the course includes an overview of new technologies that are being used by voluntary organizations to enlist participation and strengthen commitment of supporters.

**POL SCI 3830 International Political Economy: 3 semester hours**

Prerequisite: POL SCI 1100 or POL SCI 1500, or consent of instructor. This course provides an introduction to international political economy. In particular, it will focus on the politics of international trade, finance, and investment. It will analyze the relationships between developed and developing countries and it will assess the relative usefulness of alternative frameworks for studying international political economy.

**POL SCI 3850 International Organizations And Global Problem-Solving: 3 semester hours**

Prerequisites: POL SCI 1100, POL SCI 1200, or consent of the instructor. Introduction to the study of international organization. The course focuses on relationships between nation-states and "nonstate" actors (e.g., global intergovernmental organizations such as multinational corporations) in world politics and on the role of international institutions in such problem areas as economic development, management of resources, and control of violence across national boundaries.

**POL SCI 3860 Studies In War And Peace: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 1500, or consent of instructor. Exploration, development, and testing of theories about the causes and consequences of war, peace, and conflict among nations. A broad range of literature on war and peace will be reviewed, and applied to crisis situations in the international system.

**POL SCI 3890 Studies In International Relations: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 1500, or consent of instructor. Selected topics in international relations. May be repeated.

**POL SCI 3900 Special Readings: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports, and conferences. May be repeated.

**POL SCI 3940 Public Affairs Internship: 1-6 semester hours**

Prerequisite: Junior standing and consent of instructor. Independent study involving work with an appropriate public or private agency. A maximum of six credit hours may be earned.

**POL SCI 3950 Senior Seminar In Political Science: 3 semester hours**

Prerequisite: POL SCI 2000, senior standing and consent of instructor. Required of all political science majors in their last year of coursework as an integrative, capstone experience. Emphasis is on student-faculty interaction in a seminar format designed to engage upper-level students in a critical examination of a broad theme in political science, leading to the production of a major research paper. Topics vary. May be repeated. This course is not available for graduate student credit.

**POL SCI 4040 Survey Research Practicum in Political Science: 3 semester hours**

Prerequisite: Junior standing and consent of the instructor. The execution of a sample survey, including establishing study objectives, sampling, questionnaire construction, interviewing, coding, data analysis, and presentation of results.

**POL SCI 4060 Theory Of Decisions And Games: 3 semester hours**

Prerequisites: Six hours of Philosophy and junior standing, or Political Sci 6401 (or the equivalent, or consent of the instructor. A study of rational decision-making, including games against nature, zero-sum games, and social choices. Topics will include the following: expected utility maximization, the Prisoner's Dilemma, Nash equilibria, and Arrow's theorem on the impossibility of a social welfare function. Parts of the course are technical in nature; a prior course in mathematics (e.g., finite mathematics, calculus, statistics or an economics course with a mathematical component), symbolic logic, or some other course with comparable mathematical content. (Same as Philosophy 4465).

**POL SCI 4090 American Government For The Secondary Classroom: 3 semester hours**

Same as: SEC ED 4090 Prerequisites: Admission to the Teacher Education Program. TCH ED 3310 or the consent of the instructor. Adapts the themes and subject matter of American Government to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting methods of inquiry for use in an interactive classroom. Can be counted towards the Political Science major requirement, but not the American Politics subgroup. Counts towards Social Studies certification. Not available for graduate credit.

**POL SCI 4460 Urban Planning And Politics: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 2400, or consent of instructor. Examination of the political processes of urban areas, as they relate to the planning of services and facilities. Course fulfills state requirement.

**POL SCI 4510 Comparative Public Policy And Administration: 3 semester hours**

Prerequisite: POL SCI 1500 or consent of instructor. A comparative study of the characteristics of public administrators, their institutions and environments in western democratic, developing nations and communist political systems.

**POL SCI 4520 Mega-Cities and Diasporas: Understanding Global Migration: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. This course examines the causes, dynamics and effects of mega-city development and migrating diasporas in a variety of national settings. Case studies include cities based in Europe, South America, china, India, Turkey, and parts of Africa, fostering global awareness, as well as an understanding of the "interconnectedness" of politics, economics and climate change across the planet.

**POL SCI 4850 International Law: 3 semester hours**

PREREQUISITE: POL SCI 1100, POL SCI 1500, or consent of instructor. Study of the international legal system, including the content and operation of the laws of war and peace, how law is created and enforced with regard to the oceans and other parts of the globe, and the relationship between international law and international politics.

**POL SCI 4900 Topics In Political Science: 3 semester hours**

Prerequisites: POL SCI 1100 or consent of instructor Selected topics in Political Science.

**POL SCI 6300 Leadership and Management in NonProfit Organizations: 3 semester hours**

Same as P P ADM 6300 and SOC WK 6300. Prerequisites: Graduate standing required. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

**POL SCI 6401 Introduction To Policy Research: 3 semester hours**

Procedures for testing explanations, including research design, principles of measurement, probability sampling, methods of data collection, and techniques for analyzing data.

**POL SCI 6402 Intermediate Techniques In Policy Research: 3 semester hours**

Prerequisite: Graduate standing and POL SCI 6401. elementary distribution theory, statistical inference, and introduction to multiple regression. Emphasis on practical applications.

**POL SCI 6403 Advanced Techniques In Policy Research: 3 semester hours**

Prerequisite: Graduate standing and POL SCI 6402. Selected topics in policy research emphasizing forecasting, modeling and estimation.

**POL SCI 6404 Multi-Method Research Design: 3 semester hours**

Prerequisite: POL SCI 6403 or consent of instructor. Develops policy research skills that combine qualitative and quantitative social science tools and applies an appropriate mix of these tools to specific policy problems. Topics include alternative approaches to causal analysis, levels of analysis, triangulation from a variety of qualitative and quantitative research techniques, building contextual effects into multiple research projects, techniques for assessing alternative program theories and clarifying implicit assumptions, and meta-analysis of secondary data sources.

**POL SCI 6405 Directed Readings In Research Methods: 1-10 semester hours**

Independent study through readings, reports, research projects, and conferences.



**POL SCI 6410 Introduction To Policy Analysis: 3 semester hours**

Same as P P ADM 6000. Systematic development of a critical/analytic base for dealing with public policy.

**POL SCI 6415 Directed Readings And Research In Public Policy: 1-10 semester hours**

Same as P P ADM 6150. Prerequisite: Consent of instructor. Independent study through readings, reports, research projects, and conferences. May be repeated for credit, provided the subject matter is different.

**POL SCI 6418 Social & Economic Development Policy: 3 semester hours**

Same as SOC WK 6250. Prerequisites: SOC WK 5200 or equivalent or consent of instructor and graduate standing. Examines major trends and alternatives in social and economic development policy and practice in state, national, and international perspectives. Students will develop skills in policy analysis and development.

**POL SCI 6420 Proseminar In Public Law: 3 semester hours**

Study of judicial systems and processes (judges, courts, litigants, and juries) and evaluation of legal policies (Compliance, impact and deterrence).

**POL SCI 6421 Seminar In Public Law: 3 semester hours**

Research problems and designs, models and approaches to the study of public law. May be repeated for credit when the subject matter is different.

**POL SCI 6422 Law, Courts And Public Policy: 3 semester hours**

Same as CRIMIN 6422. Prerequisites: Graduate Standing. An analysis of the role of courts as policymaking institutions and the law as policy. We will explore the role of judges as policymakers, consider the attributes of courts, (both trial and appellate) that make them appropriate yet limited targets for advocates of reform, and the implementation and impact of court decisions. We will consider recent examples of judicial involvement in state and national policymaking. In addition, we will examine the role of lawyers and interest groups in selecting litigation rather than alternative political processes for policy change.

**POL SCI 6425 Directed Readings And Research In Public Law: 1-10 semester hours**

Independent study through readings, reports, research projects, and conferences.

**POL SCI 6430 Proseminar In American Politics: 3 semester hours**

Study of individual and group political behavior including socialization, participation, consensus formation, representation, legislative and judicial behavior.

**POL SCI 6431 Seminar In American Politics: 3 semester hours**

Research problems and design in American political process and behavior. May be repeated for credit when the subject matter is different.

**POL SCI 6435 Directed Readings And Research In American Politics: 1-10 semester hours**

Independent study through readings, reports, research projects, and conferences.

**POL SCI 6440 Proseminar In Public Policy Administration: 3 semester hours**

Examination of major approaches to analyzing public policies and their administration. Emphasis is on the effects of administrative organization and procedures on policy decisions and their impacts. Specific topics may include administrative accountability, inter-governmental relations, public-private interaction, implementation of processes, bureaucratic expertise, the legal environment of public service and merit issues.

**POL SCI 6442 The Policy Process: 3 semester hours**

Prerequisite: Graduate Standing. The course will require a major research project using federal documents and other primary sources of information about the U.S. policy process. Topics will include the sources of public policy; the policy agenda; policy design, legitimation, and implementation.

**POL SCI 6443 Health Care Policy: 3 semester hours**

Same as P P ADM 6430, GERON 6443, and SOC WK 6443. Prerequisites: Graduate Standing or consent of instructor. Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

**POL SCI 6444 Seminar In Public Policy And Aging: 3 semester hours**

Same as GERON 6444 and P P ADM 6444. Prerequisites: Consent of instructor. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include: housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

**POL SCI 6445 Directed Readings And Research In Public Administration: 1-10 semester hours**

Independent study through readings, reports, research projects, and conferences.

**POL SCI 6446 Selected Topics In Health Care Policy: 3 semester hours**

Same as P P ADM 6460. Prerequisite: Consent of Instructor. The study of specialized issues and methods relating to health care policy. May be repeated for credit, provided the subject matter is different.

**POL SCI 6448 Political Economy And Public Policy: 3 semester hours**

Prerequisite: Graduate standing. This course examines political economy in its contemporary manifestations as public choice and as the study of the ways in which institutional power shapes economic policies and performance. The course explores the origins and major concepts of political economy, the institutions of economic policymaking and economic policies in the U. S. It emphasizes the consequences of budget constraints inflation, unemployment and sectoral decline on the design and administration of public programs at all levels of government.

**POL SCI 6449 Human Resources In The Public Sector: 3 semester hours**

Same as SOC WK 6449 and P P ADM 6490. Prerequisites: P P ADM 6600 or consent of Instructor. Presents an overview of personnel and labor relations in the public sector. Particular emphasis placed on issues which are unique to the public sector such as the merit system, the questions of representative bureaucracy and the constraints of personnel in the nonprofit sector. The topics include: personnel reforms in the federal sector, equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation and labor relations including grievance arbitration and collective bargaining.

**POL SCI 6450 Proseminar In Comparative Politics: 3 semester hours**

Classification and typology of political systems; structural-functional analysis; political culture, ideology, affiliation and participation; decision-making processes; political roles; organization of authority.

**POL SCI 6451 Seminar In Comparative Politics: 3 semester hours**

Research problems and design in comparative politics. May be repeated for credit when the subject matter is different.



**POL SCI 6452 Public Policy Of Conservation And Sustainable Development: 3 semester hours**

Same as BIOL 6250. Prerequisites: Graduate standing in Political Science or Biology and consent of instructor. Prior course in ecology is recommended. This course will introduce the student to concepts and techniques for formulating, implementing, and analyzing public policy with an emphasis on environmental concerns, conservation, and sustainable development. The course will be team taught by a political scientist and a biologist. Course materials will include case studies that demonstrate the special problems of environmental policymaking in developing and developed economies.

**POL SCI 6455 Directed Readings And Research In Comparative Politics: 1-10 semester hours**

Independent study through readings, reports, research projects, and conferences.

**POL SCI 6465 Directed Readings And Research In Political Theory: 1-10 semester hours**

Independent study through readings, reports, research projects, and conferences.

**POL SCI 6470 Proseminar In Urban Politics: 3 semester hours**

Examination of the relationship between the social, economic and political systems of urban areas. Urban political structure, patterns of influence, political participation and communication and political change. Special attention to problems of access to and control of urban political systems.

**POL SCI 6471 Seminar In Urban Politics: 3 semester hours**

Research problems and design in urban and regional politics. May be repeated for credit when the subject matter is different.

**POL SCI 6475 Directed Readings And Research In Urban Politics: 1-10 semester hours**

Independent study through readings, reports and conferences.

**POL SCI 6480 Proseminar In International Relations: 3 semester hours**

Examination of various approaches to the study of international politics and foreign policy, focusing on studies of conflict, decision-making, international political economy, and related topics. Included are realist, idealist, and Marxist perspectives.

**POL SCI 6481 Seminar In International Relations: 3 semester hours**

Research problems and design in international politics. May be repeated for credit when the subject matter is different.

**POL SCI 6482 International Political Economy: 3 semester hours**

Prerequisite: Graduate standing. This course will examine the theoretical and policy issues of international political economy. In particular, it will focus on the politics of international trade, finance and investment. It will also analyze the themes of interdependence, hegemony, and dependency, as well as consider relations between developed and developing countries. Finally, the relative usefulness of liberal, Realist and Marxist approaches to the study of international political economy will be weighed.

**POL SCI 6485 Directed Readings And Research In International Relations: 1-10 semester hours**

Independent study through readings, reports, research projects, and conferences.

**POL SCI 6488 Studies In International Relations: 1-6 semester hours**

PREREQUISITES: Graduate standing or permission of instructor. Selected topics in international studies. May be repeated for credit provided the topic of the course is different each time.

**POL SCI 6490 Strategic & Program Planning For Nonprofit Organizations: 3 semester hours**

Same as P P ADM 6550 and SOC WK 6491. Prerequisites: Graduate standing or consent of instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, a vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

**POL SCI 6494 Thesis Research: 1-10 semester hours****POL SCI 6495 Internship: 1-6 semester hours**

Independent study involving work with an appropriate public or private agency.

**POL SCI 6499 Directed Dissertation Proposal Research: 3 semester hours**

Prerequisites: Consent of Instructor. Supervised study through readings and research leading to the preparation of a dissertation proposal plan. Open to doctoral students who have completed at least 42 hours of course work. The proposal plan will indicate the following: statement of research question, importance of the problem, literature review and research design.

**POL SCI 7499 Dissertation Research: 1-10 semester hours**

## Pre-professional Programs

Students at the University of Missouri-St. Louis may develop pre-professional study programs in either law or the health professions. With early and careful advising, students may develop an appropriate program to prepare for the intended professional study.

Students should seek pre-professional advisors in their interest area early in their academic careers to ensure development of sound, comprehensive study programs that fulfill the admission requirements of the professional program to which they wish to apply.

The following information on pre-professional study at UMSL is provided to give students minimal guidelines and assistance in planning a program.

For advisement and information, contact the Office of Undergraduate Student Affairs in the College of Arts and Sciences, 303 Lucas Hall, 314-516-5501

## Pre-Law

There is no pre-law major or minor at UMSL. There is a pre-law track available within the philosophy major, and a public law minor within political science, but you need not major in philosophy, nor minor in political science, in order to be a pre-law student. According to the Pre-Law Committee of the American Bar Association (ABA):

The ABA does not recommend any undergraduate majors or group of courses to prepare for a legal education. Students are admitted to law school from almost every academic discipline. You may choose to major in subjects that are considered to be traditional preparation for law school, such as history, English, philosophy, political science, economics or business, or you may focus your undergraduate studies in areas as diverse as art, music, science and mathematics, computer science, engineering, nursing or education. Whatever major you select, you are encouraged to pursue an area of study that interests and challenges you, while taking advantage of opportunities to develop your research and

writing skills. Taking a broad range of difficult courses from demanding instructors is excellent preparation for legal education.

The pre-law advisor can assist you in selecting courses that will best meet your interests while also allowing you to develop the skills that are important for success in law school and within the legal profession. The ABA recommends that you take courses that allow you to develop the following seven sets of skills:

- 1) Analytic / Problem Solving Skills
- 2) Critical Reading Skills
- 3) Writing Skills
- 4) Oral Communication / Listening Abilities
- 5) General Research Skills
- 6) Task Organization / Management Skills
- 7) Public Service and the Promotion of Justice

Pre-law advising is done through the Department of Philosophy in the College of Arts and Sciences. For further information, please consult the pre-law advising website: <http://www.umsl.edu/divisions/artscience/Advising%20and%20Student%20Resources/prelaw.html>. The website contains information about the pre-law advisor, the law school application process, preparation for the LSAT, UMSL's Pre-law Advisory Council, and the Friends of the Pre-Law Advisory Council Scholarship.

## Pre-Health Sciences

The University of Missouri - St. Louis offers the prerequisite classes necessary for entry into health professions schools. Students planning on applying to a health professions school should complete a baccalaureate degree of their choice while completing the prerequisite courses. Even though some programs might not require a baccalaureate degree, it is strongly recommended to complete one in order to be as competitive as possible when applying.

Programs that are covered by UMSL's pre-health advising include: medicine, dentistry, optometry, pharmacy, veterinary science, physician assistant, occupational therapy, physical therapy, chiropractic, and clinical lab science. For pre-health advising please contact 314-516-5501 or [prehealth@umsl.edu](mailto:prehealth@umsl.edu) for an appointment.

In addition to the courses listed below, students should actively seek out extracurricular opportunities. Such activities can include volunteering, shadowing, research, and organizational leadership. Students are encouraged to join some of the many on-campus organizations including one of the pre-health societies. Information about student organizations can be found at the Office of Student Life (<http://www.umsl.edu/studentlife/osl>).

Since admission requirements may vary between schools, students should consult the catalogs<sup>1</sup> of the programs to which they intend to apply. Updated information may be found in:

### Medical School Admission Requirements (MSAR)

Phone: 1-202-828-0400; Website: [www.aamc.org](http://www.aamc.org)

### American Dental Education Association Official Guide to Dental Schools

Phone: 1-202-289-7201; Website: [www.adea.org](http://www.adea.org)

### Schools and Colleges of Optometry Admission Requirements

Phone: 1-301-231-5944; Website: [www.opted.org](http://www.opted.org)

### Pharmacy School Admission Requirements

Phone: 1-703-739-2330; Website: [www.aacp.org](http://www.aacp.org)

### Veterinary Medical School Admission Requirements in the United States and Canada

Phone: 1-202-371-9195; Website: [www.aavmc.org](http://www.aavmc.org)

## Suggested Courses

Many health professions schools require or recommend the following undergraduate courses<sup>2</sup>:

### Biology

BIOL 1831	Introductory Biology: From Molecules To Organisms	5
BIOL 1821	Introductory Biology: Organisms And The Environment	5
BIOL 2012	Genetics	3
BIOL 2482	Microbiology	3
BIOL 3622	Cell Biology	3
BIOL 1131	Human Physiology And Anatomy I	4
BIOL 1141	Human Physiology And Anatomy II	4

### Chemistry

CHEM 1111	Introductory Chemistry I	5
CHEM 1121	Introductory Chemistry II	5
CHEM 2612	Organic Chemistry I	3
CHEM 2622	Organic Chemistry II	3
CHEM 2633	Organic Chemistry Laboratory	2
CHEM 4712	Biochemistry	3

### Mathematics

Select courses at least through calculus, as appropriate for the major degree.<sup>2</sup>

MATH 1100	Basic Calculus	3-5
or MATH 1800	Analytic Geometry And Calculus I	
MATH 1320	Applied Statistics I	3

### Physics

As appropriate for the degree chosen:<sup>2</sup> 8-10

PHYSICS 1011	Basic Physics I & PHYSICS 1012 and Basic Physics II	8
or		
PHYSICS 2111	Physics: Mechanics And Heat & PHYSICS 2112 and Physics: Electricity, Magnetism, And Optics	10

<sup>1</sup> The campus health professions advisor has copies of these catalogs. Email [prehealth@umsl.edu](mailto:prehealth@umsl.edu) for an appointment.

<sup>2</sup> Consult with the health professions advisor to determine the appropriate course(s).

Since students are not confirmed for admission to professional schools until the science requirements for admission are fulfilled, students should meet the science requirements before the end of the junior year. To complete these requirements in time, BIOL 1831 (<https://nextbulletin.umsl.edu/artsandsciences/preprofessionalprograms>) and BIOL 1821 (<https://nextbulletin.umsl.edu/artsandsciences/preprofessionalprograms>), Introductory Biology I and II as well as CHEM 1111 (<https://nextbulletin.umsl.edu/artsandsciences/preprofessionalprograms>) and CHEM 1121 (<https://nextbulletin.umsl.edu/artsandsciences/preprofessionalprograms>)

artsandsciences/preprofessionalprograms), Introductory Chemistry I and II should be taken during their first three semesters.

Successful completion of these recommended courses also helps students prepare for required standardized exams.

Students should take the required national standardized examination early in their junior year as is appropriate for the exam: The Medical College Admission Test (MCAT) for Pre-Med students; the Dental Aptitude Test (DAT) for Pre-Dental students; the Optometry Admission Test (OAT) for Pre-Optometry students; and the Pharmacy College Admission Test (PCAT), (if required) for Pre-Pharmacy students; and the Medical College Admission Tests or Graduate Record Exam (GRE) for Pre-Vet students. (Pre-Vet students should consult with their intended veterinary colleges for appropriate test information.)

Each year the number of applicants to health profession schools exceeds the number of available places. Students should meet with Career Services (<http://www.umsl.edu/depts/career>) and the various campus advising resources are available to students to explore alternative plans should they not be accepted.

## Pre-Optometry

The University of Missouri-St. Louis offers a four-year program of study leading to the Doctor of Optometry degree; this professional degree is administered by the College of Optometry. It is one of only 20 schools or colleges of optometry in the United States and the only one in the state of Missouri. This program, as a result, makes UMSL an ideal institution for Pre-Optometry education. Various programs are available for Pre-Optometry students as noted below.

Students may pursue a traditional 4 + 4 program, which is a bachelor's degree followed by the four-year graduate optometry program. In this case, students may pursue any bachelor's degree, as long as the pre-optometry requirements are met in biology, chemistry, math, physics, psychology and English.

Alternatively, the Department of Biology, the Department of Physics & Astronomy, and the Department of Chemistry & Biochemistry sponsor 3+4 Programs for the UMSL College of Optometry, for which a student may be admitted after completing three years (90 semester hours) of study in their respective majors and successful completion of the Optometry Admission Test (OAT). See your specific department for undergraduate degree requirements.

The Pierre Laclède Honors College and the College of Optometry also offer the Scholars Program, which allows a student to complete both the undergraduate and Doctor of Optometry degrees in seven years. To qualify for this program, a student must be a senior in high school; score a minimum composite of 27 on the ACT; and be accepted to the UMSL Pierre Laclède Honors College program. For more information about the Scholars Program, contact the Pierre Laclède Honors College, 314-516-7769.

For the programs described above (3+4 or Scholars), the undergraduate degree is granted when the student satisfactorily completes the first year of the professional program and has met all of the conditions for the specific undergraduate degree for which the student has applied.

1. All general education requirements and all requirements for the biology, physics, or chemistry major, except electives, must be completed.

2. Any deficiency in required courses must be remedied with courses taken at UMSL within three years after entering the College of Optometry.
3. Up to 6 hours from the College of Optometry may be substituted for undergraduate degree in Biology with approval of the Department of Biology.
4. Up to six hours is used to satisfy degree requirements in biology, and 14 hours in physics to complete the B.S. in Physics degree.

For more information, contact the Department of Biology, 314-516-6200 or the Department of Physics & Astronomy at 314-516-5931. The Department of Chemistry & Biochemistry offers a similar program, which may require taking summer classes in order to complete the degree requirements for a B.A. or B.S. degree in three years. For more information, please contact the Department of Chemistry & Biochemistry at 314-516-5311.

In some cases, students are admitted to the College of Optometry program prior to completing the requirements for their baccalaureate degree.

Note: MATH 1800 (<https://nextbulletin.umsl.edu/artsandsciences/preprofessionalprograms>), Analytical Geometry and Calculus I must be taken in the first semester for most 3+4 or Scholars Programs.

For more information on admission requirements for the College of Optometry, please refer to the Optometry section of this Bulletin.

## Psychological Sciences

### General Information

#### Psychology Academic Advising Office

Undergraduate psychology majors and other students interested in majoring or minoring in Psychology should visit an Academic Advisor in the Psychology Academic Advising Office (Stadler 322) to receive specific information on degree requirements and course offerings, discuss questions about career options, and receive information about graduate work in Psychology. All students are encouraged to see a Psychology Academic Advisor regularly throughout their collegiate careers. It is especially important for all students who are within one calendar year of graduation to meet with a Psychology Academic Advisor. Students will minimize waiting time and will be assured one-to-one attention from an Academic Advisor by calling (314) 516-4561 to schedule an appointment. Office hours for Psychology Academic Advising can be obtained by e-mailing: [psy\\_advising@umsl.edu](mailto:psy_advising@umsl.edu).

### Career Outlook

The undergraduate major in Psychology can provide the foundation for further training in psychology at the graduate level, the background necessary for graduate training in other fields such as the health professions, social work or counseling, or the liberal arts background necessary for entry level positions in many fields such as business, communication, and human services and mental health positions. To function specifically as a psychologist, a graduate degree is required. For more career information please schedule an appointment with an Academic Advisor in the Psychology Academic Advising Office (Stadler 322; 314-516-4561; [psy\\_advising@umsl.edu](mailto:psy_advising@umsl.edu)). For additional information, visit the American Psychological Association website at [www.apa.org](http://www.apa.org) (<http://www.apa.org>).

## Facilities

The department has several animal and human experimental laboratories furnished with a wide range of psychophysiological equipment. The department also operates three facilities (Community Psychological Services, the Center for Trauma Recovery, and Children's Advocacy Services of Greater St. Louis) which provide training opportunities for students in Psychology, as well as providing psychological assessment services for citizens of the region.

## Program Overview

The Psychology department offers a broad-based curricular plan leading to the Bachelor of Arts (BA) degree in Psychology as well as a minor in the field. There are several certificates that can be earned through the department including an undergraduate certificate in neuroscience and an undergraduate and a graduate certificate in trauma studies. The department also offers a terminal Master of Arts in Psychology, with a specialization in either Industrial/Organizational Psychology or Behavioral Neuroscience. The department offers three options within its Ph.D. Program: Clinical Psychology; Behavioral Neuroscience; and Industrial/Organizational Psychology. Finally, the department offers a Clinical Psychology Respecialization-Advanced Graduate Certificate Program. This program is designed for individuals who already have a doctoral degree in Psychology who wish to receive specialty training in Clinical Psychology.

## Undergraduate Programs

### General Education Requirements

Majors must satisfy the university and college General Education curricular requirements (<http://bulletin.umsl.edu/generaleducationrequirements>). Selected courses in Psychology may be used to meet General Education Social and Behavioral Sciences and/or Valuing requirements. These courses are listed here in The Bulletin and can be found on the Degree Audit Report System.

### Bachelor of Arts in Psychology

At least 34, but no more than 45, hours must be completed in courses taught by or cross-listed with the Psychology Department. Credits that exceed the 45 hour maximum in Psychology will not be counted toward graduation. Candidates must have a cumulative grade point average of 2.0 or higher in the major overall, and must earn a C- or above in each of the courses comprising the 34 credits required of all Psychology majors. Failure to earn a C- or above in these required courses will necessitate re-taking them for a satisfactory completion of the C- requirement in all 34 hours. It is recommended that students complete the prerequisites necessary to start taking the Psychological Statistics (PSYCH 2201) and Research Methods (PSYCH 2219) course sequence as early as possible after declaring a Psychology major. Psychological Statistics and Research Methods are 2000-level courses; it is important to complete these when students are taking other 2000-level courses. Students who wait to take these courses are not as prepared for their 3000 and 4000 level courses as are those who take them at the appropriate time. No Psychology courses taken on a satisfactory/unsatisfactory basis may be applied to the major.

A grade of C- or above is required by all Psychology majors in the following 34 credit hours of courses:

PSYCH 1000, Careers in Psychology (1.0 Credit Hour): Native and transfer students must satisfactorily complete this course during their first semester as a Psychology major at UMSL.

A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade.

PSYCH 1003, General Psychology (3.0 Hrs)

- A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade

PSYCH 2201 Psychological Statistics (4.0 Hrs): Meeting the University mathematical skills requirement is a prerequisite for this course.

- Students may register for this course only after satisfactory completion of this requirement.
- A grade of C- or higher in PSYCH 2201 is required before students may register for PSYCH 2219. A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade.

PSYCH 2211 Introduction to Biological Psychology (3.0 Hrs)

- PSYCH 1003, and three hours of BIOL chosen from either BIOL 1012, BIOL 1102, or BIOL 1831 are prerequisites of this course and must be completed before enrollment. A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade.

PSYCH 2219 Research Methods (3.0 Hrs)

- A grade of C- or above in PSYCH 2201 at UMSL is a prerequisite of this course. Students may not register for PSYCH 2219 until a final grade of C- or above has been earned in PSYCH 2201. Students wishing to have statistics courses from other institutions reviewed for possible course equivalency must see the Director of Academic Advising for the Department of Psychology for a review. PSYCH 2201 and PSYCH 2219 cannot be taken concurrently.
- A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade.

PSYCH 2245 Abnormal Psychology (3.0 Hrs)

- A grade of C- or above in PSYCH 1003 is a prerequisite for this course. A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade. PSYCH 2160, Social Psychology (3) \*OR\* PSYCH 2270, Developmental Psychology: Infancy, Childhood & Adolescence (3) A grade of C- or above in PSYCH 1003 is a prerequisite for taking either of these courses. A grade of C- or above is required for Psychology majors in at least one of these two courses. Psychology majors earning below a C- must either repeat the course in which the unsatisfactory grade was earned, or satisfactorily complete the other course listed here.

PSYCH 4999, Integrated Psychology (2.0 Hrs)

- Students may register for this course during their final semester of study at UMSL.
- A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade. PSYCH 3000/4000 level Psychology courses (12). At least four additional totaling a minimum of 12 credit hours in Psychology (in addition to the 2 credits earned PSYCH 4999) must be satisfactorily completed at the 3000/4000 level.



- A grade of C- or above is required by all Psychology majors in a total of 12 credit hours of 3000/4000 level Psychology courses. Psychology majors earning below a C- must either repeat courses in order to earn a C- or above in 12 hours at this level, or satisfactorily complete other 3000/4000 level courses for satisfactory completion of a cumulative total of 12 hours.

## Additional Notes

Psychology majors must not take courses in excess of 45 hours in Psychology. Psychology credits completed in excess of 45 will not count toward graduation. For example, students earning 48 hours in Psychology will consequently be required to earn a minimum of 123 hours to graduate.

The three course sequence of Math, Psychological Statistics (PSYCH 2201), and Research Methods (PSYCH 2219) require a minimum of three semesters to complete. Students must satisfy the current University mathematical skills requirement before taking PSYCH 2201, Psychological Statistics. PSYCH 2201 is a prerequisite for PSYCH 2219, and hence, PSYCH 2201 must be completed with a grade of C- or higher PRIOR to enrollment in PSYCH 2219. PSYCH 2201 and PSYCH 2219 cannot be taken concurrently. Students are advised to plan accordingly and to seek assistance from Psychology Academic Advising whenever needed.

Students are required to satisfactorily complete 13 credit hours in one foreign language.

## Requirements for the Minor

Candidates must complete a minimum of 15 hours of courses taught by or cross-listed with the Psychology Department, including at least 6 hours at the 3000 or 4000 level (no more than 3 of these can be PSYCH 3390 (p. 237)). Candidates must have a cumulative grade point average of 2.0 or higher in the minor. Psychology courses taken on a satisfactory/unsatisfactory basis may not be applied to the minor.

## Undergraduate Certificate in Trauma Studies

The trauma studies certificate is designed for students who are interested in a focused specialty in trauma studies or victim services in addition to their own major. It is appropriate for students in the College of Arts and Sciences or any of the schools of the university. It is particularly appropriate for students wishing to pursue careers in psychology, social work, sociology, criminology, law, public health, or nursing.

## Requirements

A student may earn a trauma studies certificate by completing 18 hours with a GPA of 2.0 or better from at least three departments from the following courses:

Select at least four of the following: 12

### Criminology and Criminal Justice

CRIMIN 1120 Criminal Law  
(p. 237)

CRIMIN 4300 Communities And Crime  
(p. 237)

CRIMIN 4350 Victimology  
(p. 237)

### Psychology

PSYCH 2232 Psychology Of Trauma  
(p. 237)

PSYCH 3390 Directed Studies (for three credits only toward certificate) <sup>1</sup>  
(p. 237)

### Social Work

SOC WK 3100 Introduction To Strategies for Social Work Practice  
(p. 237)

SOC WK 4601 Abused And Neglected Children  
(p. 237)

SOC WK 4602 Child Welfare Practicum Seminar  
(p. 237)

### Sociology

SOC 3250 (p. 237) Sociology Of Victimization  
(p. 237)

Select up to two of the following: 6

### Criminology and Criminal Justice

CRIMIN 3230 Crime Prevention  
(p. 237)

CRIMIN 2240 Policing  
(p. 237)

CRIMIN/ SOC 4340 (p. 237) Race, Crime, And Justice  
(p. 237)

### Political Science

POL SCI 2400 Public Administration  
(p. 237)

POL SCI 2420 Introduction To Public Policy  
(p. 237)

### Psychology

PSYCH/ SOC 2160 (p. 237) Social Psychology  
(p. 237)

PSYCH 2230 Psychology Of Gender  
(p. 237)

PSYCH 2245 Abnormal Psychology  
(p. 237)

### Social Work

SOC WK 4630 Gender Issues in Social Work  
(p. 237)

### Sociology

SOC 2102 (p. 237) Introduction To Gender Studies  
(p. 237)

SOC/PSYCH 2160 (p. 237) Social Psychology  
(p. 237)

SOC 3268 (p. 237) The Sociology Of Conflict  
(p. 237)

SOC/CRIMIN 4340 (p. 237) Race, Crime, And Justice  
(p. 237)

Total Hours 18

<sup>1</sup> Please seek approval of the Coordinator of the Trauma Studies Certificate in advance

Special Topics courses relevant to trauma studies may be included in the certificate when approved in advance by the coordinator of the trauma studies certificate.

## Graduate School Preparation

In addition to the required courses listed above, students interested in applying to graduate school in Psychology are strongly encouraged to become involved in a research project with a Psychology faculty member by securing enrollment in PSYCH 3390, Directed Studies. These positions are available on a limited and competitive basis. No enrollments in PSYCH 3390 are possible without special Instructor permission. Those invited to participate must obtain a special consent form from the instructor in order to enroll. Contact the Psychology Academic Advising office for more information on such positions (psy\_advising@umsl.edu).

## Undergraduate Learning Outcomes

The Undergraduate Psychology Learning Goals and Outcomes represent reasonable departmental expectations for the psychology major at the University of Missouri-St Louis. They have been modified from the undergraduate learning goals recommended by the American Psychological Association.

### Outcome 1. Recommended Courses for General Knowledge Base of Psychology

- Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
- PSYCH 1003 introduces these concepts; all other psychology courses expand on these issues in more depth.

### Goal 2. Research Methods in Psychology

- Students will understand basic research methods in psychology, including the development and refinement of theory, hypothesis generation and testing, research design, data analysis and interpretation.
- All courses touch on these issues, but two required courses, PSYCH 2201 and PSYCH 2219 specifically address these issues in depth. In addition, students may take elective courses to strengthen their skills in this area.

### Goal 3. Biological and Cognitive Approaches to Understanding Behavior

- Students will have a basic understanding of the biological basis of behavior and cognitive theory and research in psychology.
  - The following courses specifically address this goal:
- |            |                                       |   |
|------------|---------------------------------------|---|
| PSYCH 2211 | Introduction To Biological Psychology | 3 |
| PSYCH 4349 | Human Learning And Memory             | 3 |
| PSYCH 4356 | Cognitive Processes                   | 3 |

### Goal 4. Application of Psychology to Personal Development and Mental Health.

- Students will understand and apply psychological principles to personal development and mental health.
- Many psychology courses have a specific application to the personal development and mental health of students and their families, including:

PSYCH 2232	Psychology Of Trauma	3
PSYCH 2245	Abnormal Psychology	3

PSYCH 2270	Developmental Psychology: Infancy, Childhood And Adolescence	3
PSYCH 2280	Psychology Of Death And Dying	3
PSYCH 3340	Clinical Problems Of Childhood	3
PSYCH 3346	Introduction To Clinical Psychology	3
PSYCH 4305	Developmental Psychology: Cognitive Development of Children	3
PSYCH 4316	Developmental Psychology: Social Development of Children and Adolescents	3
PSYCH 4376	Mental Health And Aging	3

### Goal 5. Application of Psychology to Social and Organizational Issues

- Students will understand and apply psychology principles of social and organizational issues, including understanding and respect for cultural diversity.
- The following courses address this goal:

PSYCH 2160	Social Psychology	3
PSYCH 2222	Group Processes In Organizations	3
PSYCH 2230	Psychology Of Gender	3
PSYCH 3318	Industrial And Organizational Psychology	3
PSYCH 4311	Psychology Of Nonverbal Behavior	3

### Goal 6. Values in Psychology and Critical Thinking

- Students will be able to weigh evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a discipline. Students will also learn to use critical thinking in evaluating research and other types of information.
- All courses are relevant to this goal.

### Goal 7. Information and Technological Literacy

- Students will demonstrate information competence and the ability to use computers and other technology for many purposes.
- PSYCH 2201 and PSYCH 2219 addresses these topics in considerable detail.

### Goal 8. Communication Skills

- Students will be able to communicate effectively in a variety of formats.
- All courses provide some training in communication skills, with initial skills reinforced in upper division courses.

### Goal 9. Career Planning and Development

- Students will emerge from the major with realistic ideas about how to implement their psychological knowledge, skills, and values in occupational pursuits in a variety of settings.
- PSYCH 1000 and PSYCH 1003 addresses this goal directly.

## Graduate Programs

### Admission Requirements

In addition to meeting the general admission requirements of the Graduate School, applicants should have completed undergraduate courses at minimum in general psychology, psychological statistics, and research methods. Each doctoral program has additional admission requirements specific to that program.

## Applications

Each program has independent deadlines for completed applications. They are as follows:

Ph.D. in Psychology:

- Clinical Psychology--December 15
- Industrial/Organizational Psychology--January 15
- Behavioral Neuroscience --January 15

## Teaching and Research Assistantships.

Stipends for teaching and research assistantships are available for the doctoral programs only.

## Master of Arts in Psychology

The psychology department at the University of Missouri-St. Louis offers a program of studies leading to the Master of Arts degree with a specialization in either Behavioral Neuroscience or Industrial/Organizational Psychology. The M.A. degree is a terminal degree and is separate from the Ph.D. program in Psychology. There is no thesis or language requirement. The M.A. degree does not constitute a license to practice in Missouri or elsewhere as a professional Psychologist. The M.A. program does not offer course work in Counseling or Clinical Psychology.

The M.A. in Psychology requires a total of 32 semester hours of graduate course work in Behavioral Neuroscience or 45 semester hours of course work in Industrial/Organizational Psychology. All students in the Master's program must take the course work prescribed by their emphasis area. All programs of study for M.A. students require the approval of the Director of the Behavioral Neuroscience program or Director of the Industrial/Organization program.

## Emphasis in Behavioral Neuroscience Psychology

(pending CBHE approval)

The University of Missouri-St. Louis offers a program of studies leading to a Master of Arts Degree in Psychology with a specialization in Behavioral Neuroscience. Masters students take classes with Doctoral level students and conduct research in a core area of study including hormones and behavior, psychophysiology of trauma, neuropsychology and neuroimaging of aging and HIV, brain dysregulation in language disorders, social neuroscience of bias and stigma or neurobiology of emotion.

Students are enrolled into a research group headed by a faculty member with research interests in one of the six areas identified above. That professor serves as the student's primary mentor throughout their graduate training, though communication and collaboration with other laboratories are encouraged.

Research Facilities: Research facilities include a variety of resources to support animal models of learning and memory, sociosexual behaviors, neuroendocrinology, and neuropharmacology; assessment of human cognition and neuropsychology; electrophysiology labs and psychophysiology labs to measure electrocardiogram, electrodermal activity, respiration, electromyogram, electrooculogram and infrared video-based equipment for tracking eye movements and pupillary response.

## Degree Requirements

A total of 32 credit hours is required for the MA degree with an emphasis in the behavioral neuroscience field of experimental psychology. There is no thesis requirement for the Masters degree.

### Required Coursework

The following graduate courses are currently required of all Masters students in the Behavioral Neuroscience emphasis area:

PSYCH 7421	Quantitative Methods I	4
PSYCH 7422	Quantitative Methods II	4
PSYCH 5465	Seminar: Behavioral Neuroscience	3
PSYCH 5407	Psychopharmacology	3
PSYCH 5468	Seminar: Cognitive Processes	3
PSYCH 5001	Neuropsychological Assessment	3
PSYCH 7483	Directed Research	3
or PSYCH 7484	Directed Readings	

### Electives

Choose from among the following or courses approved by graduate director:

PSYCH 4330	Hormones, The Brain And Behavior	
PSYCH 7403	Psychopathology	
PSYCH 7412	Social Psychology	
PSYCH 7423	Quantitative Methods III	
PSYCH 7429	Psychometric Theory	
PSYCH 7483	Directed Research	
or PSYCH 7484	Directed Readings	

Total Hours		32
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Students should develop, in collaboration with their graduate faculty advisor/mentor in the Department of Psychology, a useful and compatible set of elective courses fitting their individual career goals and preferences.

## Emphasis in Industrial/Organizational Psychology

(pending CBHE approval)

The University of Missouri-St. Louis offers a program of studies leading to a Masters of Arts degree in Psychology with an emphasis in Industrial/Organizational Psychology. This program embraces the scientist-practitioner model and provides a balanced training in I/O. This emphasis provides "industrial" training in areas such as personnel selection, training, and test development/validation, as well as "organizational" training in areas such as work motivation, leadership, mentoring, and group processes. Conducting research with faculty and other training experiences are also incorporated. Masters students take 45 hours of courses. Completion of the Masters program does not qualify one for admittance to the doctoral program. Masters students must reapply for consideration to the doctoral program. Additionally, Masters students are not required to complete an empirical research thesis.

PSYCH 5468	Seminar: Cognitive Processes	3
PSYCH 7412	Social Psychology	3
PSYCH 7421	Quantitative Methods I	4
PSYCH 7422	Quantitative Methods II	4
PSYCH 7449	Research Methods and Project Development In Applied Psychology	3
PSYCH 7454	Seminar: Personnel Psychology	3

PSYCH 7455	Seminar: Organizational Psychology	3	PSYCH 5465	Seminar: Behavioral Neuroscience	3
PSYCH 7457	Seminar: Special Topics In Industrial Psychology	3	PSYCH 5468	Seminar: Cognitive Processes	3
PSYCH 7458	Seminar: Special Topics In Organizational Psychology	3	PSYCH 6466	Seminar: Developmental Psychology	1-3
PSYCH 7466	Seminar Series in Industrial/Organizational Psychology	4	PSYCH 7403	Psychopathology	3
MGMT 5611	Advanced Organizational Behavior And Administrative Processes	3	PSYCH 7412	Social Psychology	3
MGMT 5621	Managing Human Resources	3	Students will be prepared in multiple approaches to assessment and treatment that are theory-based and research-supported.		
MGMT 5625	Selected Topics In Human Resource Management	3	The following courses address this goal directly:		
<b>Electives</b>		<b>3</b>	PSYCH 7404	Introduction To Clinical Assessment I	4
Choose one of the following:			PSYCH 7406	Introduction To Clinical Assessment II	4
	PSYCH 7429	Psychometric Theory	PSYCH 7430	Introduction To Clinical Skills	1
	PSYCH 7469	I/O Professional Issues And Ethics	PSYCH 7431	Clinical Supervision	1-3
	PSYCH 7423	Quantitative Methods III	PSYCH 7434	Introduction to Clinical Interventions	3
	PSYCH 7465	Applied Issues In Organizational Psychology	PSYCH 7439	Summer Supervision	1
	PSYCH 7472	Special Topics In Psychology	PSYCH 7450	Clinical Internship I	1
Total Hours		45	PSYCH 7451	Clinical Internship II	1

## Description of Ph.D. Programs/Options

There are three distinct programs:

- Clinical Psychology;
- Behavioral Neuroscience; and
- Industrial/Organizational Psychology.

Details on each program can be found on the Psychology Department webpage. Each has its own specific curricular and research requirements. The following briefly describes each program.

### Clinical Psychology

The Clinical Psychology program has been fully accredited by the American Psychological Association since 1977 and is patterned upon the scientist-practitioner model of clinical training. The Clinical Psychology program requires five years of full-time study. Students are not considered for admission on a part-time basis. Through the medium of courses, practicums, and research experiences, this emphasis area prepares Clinical Psychologists for careers in research, teaching, and clinical practice.

Students in the Clinical Psychology program participate for three years in the Psychology Department's Community Psychological Services clinic. This facility provides psychological services to the public and consultation to outside agencies. Students also receive clinical experience in clerkships and during a full-time, year-long internship. Research requirements include an initial independent research project, a major critical review of research in a specialty area, and a dissertation.

### Learning Outcomes for the Ph.D. in Clinical Psychology:

The Ph.D. in Clinical Psychology has the following goals and outcomes:

**Goal 1.** Students will gain a broad-based foundation of knowledge and conceptual skills necessary for psychological research and practice.

The following courses address this goal:

**Goal 2.** Students will develop the ability to evaluate and conduct methodologically sound research of potential benefit to the practice of psychology.

The following courses address this goal directly:

PSYCH 7421	Quantitative Methods I	4
PSYCH 7422	Quantitative Methods II	4
PSYCH 7474	Clinical Research In Applied Settings	3
PSYCH 7485	Research Team I	2
PSYCH 7486	Research Team II	2
PSYCH 7487	Thesis Research Project	1-6
PSYCH 7488	Specialty Examination Research	1-6
PSYCH 7492	Ph D Thesis Research	1-10

In addition, students must submit a journal-length manuscript based on their dissertation for review by a professional journal prior to graduation.

**Goal 3.** Students will develop a firm basis for ethical decision-making and adherence to professional standards of conduct in research and practice.

Most courses provide some training in this area, and PSYCH 7432 addresses this goal directly as a required course.

**Goal 4.** Students will develop and display sensitivity and adaptability in their applications of research, assessment and treatment approaches to diverse populations.

Most courses provide some training in this area, and PSYCH 6448 addresses this goal directly as a required course.

**Goal 5.** Students will continue to develop a commitment to the goals of life-long learning, and an awareness of clinical psychology as an evolving science.

All courses are relevant to this goal.

### Behavioral Neuroscience

The Behavioral Neuroscience program provides opportunities for study, research, and training in various areas including psychophysiology, psychopharmacology, neuroendocrinology, cognitive neuroscience, and



neuropsychology. This program prepares students for research careers in academia or industries, such as pharmaceutical firms and medical schools. Full-time enrollment is required.

## Learning Outcomes for the Ph.D. in Behavioral Neuroscience

The graduate program in Behavioral Neuroscience has the following goals. Outcome measures for each goal allow the faculty to assess the students.

**Goal 1.** Students will gain a broad-based foundation of terminology and basic and conceptual knowledge necessary for teaching and research in the Behavioral Neuroscience field. Outcome measures include grades in coursework, performance on both the written and oral segments of the qualifying exam, as well as active participation in our journal reading groups.

**Goal 2.** Beginning early in their studies, students will learn the basic skills to conduct research in a variety of different paradigms. Outcome measures include successful accomplishments in the laboratories of mentor professors.

**Goal 3.** Beginning early in their studies, students will come to recognize the key to success in the Behavioral Neuroscience field is publishing and seeking grant support. Outcome measures include an easily observable mindset that assesses all scholarly activities in regard to possible publication and/ or a suitable idea for submission to a grant agency. Also, regular attendance is expected at all relevant colloquia on campus and at the grant writing seminars offered by the Behavioral Neuroscience faculty.

**Goal 4.** Students will come to recognize the importance of writing and will be constantly developing their writing skills as applied to manuscript preparations and grant applications. Outcome measures are the numbers of manuscripts written and submitted to journals or grant agencies each year.

**Goal 5.** As they progress through the program, students will show increasing self-reliance to initiate a research project and carry it to its completion. Outcome measures are numbers and quality of self-initiated research projects.

**Goal 6.** At the end of their graduate studies, the students will have grown into full colleagues of the faculty and be ready for careers in research and teaching. Outcome measures are a quality dissertation that is successfully defended before peers and being hired for a suitable position (post-doc, assistant professor, junior-level researcher) in the field.

## Industrial/Organizational Psychology

The Industrial/Organizational Psychology program is offered in cooperation with selected faculty from the College of Business to prepare students for careers in industry or academia. This program embraces the scientist-practitioner model and provides a balanced training in I/O. This emphasis provides "industrial" training in areas such as personnel selection, training, and test development/validation, as well as "organizational" training in areas such as work motivation, leadership, and group processes. Research and other training experiences in various settings are also incorporated.

## Learning Outcomes for the Ph.D. in Industrial/Organizational Psychology:

The Ph.D. in Industrial/Organizational (IO) Psychology has the following goals:

**Goal 1.** Students will gain a broad-based foundation of knowledge and conceptual skills necessary for applied psychological research and practice.

**Goal 2.** Students will develop the ability to evaluate and conduct methodologically sound research of potential benefit to the theory and practice of psychology.

**Goal 3.** Students will develop the ability to apply psychological principles that are theory-based and research-supported to individuals and groups in organizational settings.

**Goal 4.** Students will develop a firm basis for ethical decision-making in research and practice.

**Goal 5.** Students will display adaptability in their applications of research, assessment and practical psychological approaches to individuals and groups in organizational settings.

## Graduate Certificate Programs

### Clinical Psychology Respecialization-Advanced Graduate Certificate Program

This program is designed for graduates of accredited doctoral programs in psychology who wish to receive training in the specialty field of clinical psychology. Respecialization students are trained within the context of the UMSL Clinical Psychology Doctoral Program, which is accredited by the American Psychological Association. The program provides an integrated sequence of training experiences, including didactic course work and practicum placements. Core graduate-level psychology educational requirements not completed elsewhere are included in the respecialization student's course of study.

### Graduate Certificate in Trauma Studies

The graduate certificate is awarded upon the completion of 18 credit hours of graduate coursework on the topic of trauma studies. No more than nine hours of graduate level independent research or fieldwork may be used for the certificate. The coursework for the certificate must be taken in at least two departments and may include no more than three hours at the undergraduate 3000 or 4000 level.

## Sample Four Year Plan

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 PSYCH 2211	3
PSYCH 1003	3 PSYCH 2201	4
ENGL 1100	3 General Education <sup>2</sup>	3
MATH 1020	3 Foreign Language 1001	5
PSYCH 1000	1	
BIOL 1012	3	
	<b>14</b>	<b>15</b>
Second Year		
Fall	Hours Spring	Hours
PSYCH 2219	3 PSYCH 2160 or 2270	3
Foreign Language 1002	5 Foreign Language 2101	3

General Education	6 General Education	9
PSYCH 2245	3	
	<b>17</b>	<b>15</b>
<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
General Education	6 General Education	9
PSYCH 3000-4000+ level course	3 PSYCH 3000-4000+ level course	6
Elective or minor	3	
ENGL 3100	3	
	<b>15</b>	<b>15</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
Elective or minor	3 Elective or minor	12
PSYCH 3000-4000+ level course	6 PSYCH 4999	2
General Education	6	
	<b>15</b>	<b>14</b>
Total Hours: 120		

- 1 INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits
- 2 The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science or Humanities general education course.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Child Advocacy Studies Courses

### **CAST 3290 Traumatic Stress in Childhood and Adolescence: 3 semester hours**

SAME AS PSYCH 3290. Prerequisites: PSYCH 2270 (majors), PSYCH 1268, or approval from the instructor. Exploration of the impact of stressors experienced during infancy, childhood and adolescence. Integrates how theoretical frameworks, cultural considerations and policy implications apply to child development research and practice.

### **CAST 4398 Child Maltreatment: A Multidisciplinary Approach: 3 semester hours**

SAME AS PSYCH 4398 and SOC WK 4398. Focuses on clinical aspects of child abuse with attention to identification, reporting, intervention and prevention. Perspectives from the disciplines of psychology and social work are provided.

### **CAST 4498 Forensic Investigation of Child Abuse: 3 semester hours**

Prerequisites: CAST 4398/PSYCH 4398/SOC WK 4398. Designed for students across multiple disciplines where knowledge of child abuse investigation and advocacy are necessary. Focuses on the investigative and prosecutorial responses of professionals involved with child abuse cases to expand the student's knowledge and skills in the most effective response to child abuse investigations. Includes competency-based skills training such as conducting a cursory interview, participating in peer review, doing case presentations, and producing investigative documentation.

### **CAST 4598 Child Abuse Assessment and Intervention: 3 semester hours**

Prerequisites: CAST 4398/PSYCH 4398/SOC WK 4398. Provides students with knowledge and skills to intervene effectively and empathically with families that experience child abuse and neglect. Uses experiential learning to develop skills in trauma-focused screening, assessment, and crisis intervention for vulnerable children and their families who are involved with child serving systems such as law enforcement, child protective services, prosecution, and physical and mental health.

### **CAST 4698 Internship in Child Advocacy Studies: 3 semester hours**

SAME AS PSYCH 4698. Prerequisites: PSYCH 4398, completion of or concurrent enrollment in PSYCH 4498 and PSYCH 4598, and approval from the CAST director. Internship under CAST staff supervision in child or youth-serving setting. Monthly seminar participation required. Approval from the CAST director is required prior to enrolling.

## Psychology Courses

### **PSYCH 1000 Choosing A Career In Psychology: 1 semester hour**

Prerequisite: Psychology Major or consent of instructor. This course is an orientation to the field of psychology for majors and for students who are considering declaring the major. This course is to be completed by native and transfer Psychology majors during their first semester of study at UMSL. Students will be engaged in activities that will help them to develop and identify their professional goals, learn about the various specialties and careers available within the field of psychology, understand the education and skills necessary for various careers, learn the requirements for a psychology major, become familiar with minors that are available at UMSL, think about a possible choice of minor or certificate, and become acquainted with the interest areas of UMSL faculty in Psychology and related fields. All Psychology majors must complete this course during the first semester at UMSL with a grade of C- or higher.

### **PSYCH 1003 General Psychology: 3 semester hours**

A survey of the basic concepts, theories, and pivotal findings over the past 100 years in the science of Psychology, with special emphasis on contemporary concepts and findings that focus on the relation of the brain to normal and pathological behaviors. All Psychology majors must complete this course with a grade of C- or higher.

### **PSYCH 1268 Human Growth And Development: 3 semester hours**

Prerequisites: PSYCH 1003. A survey course, designed for non-majors. This course examines development over the lifespan with an emphasis on the developmental tasks and hazards of each age period. Majors in Psychology and students planning to pursue a career in psychology research, teaching, or practice are strongly encouraged to take PSYCH 2270 instead of this course.

### **PSYCH 2160 Social Psychology: 3 semester hours**

Same as SOC 2160. Prerequisite: PSYCH 1003 or SOC 1010. This course examines the behavior, thoughts, and feelings of individuals in their social environments. The content focuses not only on how people relate to one another, but also on the processes affecting their interactions with others. Specific topics include the self, social judgments, attitudes and persuasion, helping behavior, prejudice, aggression, attraction, conformity and obedience, and group processes. All Psychology majors taking this course instead of PSYCH 2270 must complete it with a grade of C- or higher.

**PSYCH 2200 Drugs And Behavior: 3 semester hours**

Prerequisite: PSYCH 1003. The course is an introduction to psychopharmacology and the relationship among drugs, and how these impact the brain and behavior. The emphasis is on physiological mechanisms underlying the behavioral responses to psychotherapeutic substances, illicit psychoactive drugs, commonly used substances (alcohol, nicotine, caffeine), and drug-like substances produced naturally in the body.

**PSYCH 2201 Psychological Statistics: 4 semester hours**

Prerequisites: PSYCH 1003 and satisfaction of the University's mathematical skills requirement. (With Laboratory) This course serves as an introduction to statistical concepts and methods used in Psychological measurement and the analysis and interpretation of social sciences data. Topics include descriptive statistics, frequency distributions centrality, variability, and correlational measures; as well as an introduction to statistical inference, sampling fundamentals, significance testing and effect size, t-test, and analysis of variance. All Psychology majors must complete this course with a grade of C- or higher before registering for PSYCH 2219.

**PSYCH 2205 Human Sexuality: Psychological Perspectives: 3 semester hours**

Prerequisites: PSYCH 1003. This course is a comprehensive overview of human sexuality from the standpoint of the behavioral science of Psychology. This course includes a study of sexual anatomy and physiology, intersex classifications, sex and gender differences, sexual orientation, interpersonal and interpersonal aspects of human sexuality, classification and treatment of sexual dysfunction and sexual disorders, sexual victimization, and the methods employed for the scientific examination of human sexual behavior.

**PSYCH 2211 Introduction To Biological Psychology: 3 semester hours**

Prerequisites: PSYCH 1003 and 3 hours of BIOL chosen from either BIOL 1012, or BIOL 1102, or BIOL 1831. Students with career goals that include graduate study in Psychology are urged to complete the BIOL 1831 prerequisite for this course. This course introduces psychology students to behavioral neuroscience and neuropsychology. Course topics include basic neuroanatomy and neurophysiology, neurodevelopment, sensory and motor systems, and the integration of subcortical and cortical networks. All are covered with an emphasis on behavioral outcomes of normal and pathological functioning of the brain. All psychology majors must complete this course with a grade of C- or higher.

**PSYCH 2219 Research Methods: 3 semester hours**

Prerequisite: Completion of PSYCH 2201 with a final grade of C- or higher is required prior to enrolling in this course. This course is a comprehensive overview of research methods in the social sciences. Topics include technical scientific writing in current APA format, critical evaluation of research literature, the application of statistical methods, and mastery of the ethical principles guiding social sciences research. Course and laboratory work involve designing and evaluating research questions, formulating research hypotheses, designing and conducting original research studies, and presenting research results. All psychology majors must complete this course with a grade of C- or higher.

**PSYCH 2222 Group Processes In Organizations: 3 semester hours**

Prerequisite: PSYCH 1003 or MGMT 3600. Topics Include Theory, Research And Practice In Coordination, Conflict And Decision-Making In Groups And Organizations, As Well As The Role Of Influence, Power, And Leadership Effectiveness In Understanding Interpersonal And Group Relations.

**PSYCH 2230 Psychology Of Gender: 3 semester hours**

Same as GS 2230. Prerequisite: PSYCH 1003. Evaluation of psychological theories and research regarding physiological, cognitive, and personality gender differences and similarities, gender related problems in adjustment, and gender specific clinical interventions.

**PSYCH 2232 Psychology Of Trauma: 3 semester hours**

Same as GS 2232. Prerequisites: PSYCH 1003. This course is designed to review the psychological effects of crime, violence, war, natural disasters, and other traumas. Particular attention is paid to the development of specific psychopathology and other negative consequences of traumatic events. The process of recovery from distress following psychological events is further emphasized. The role of gender and its relationship to victimization and the development of psychopathology and recovery are considered throughout the course.

**PSYCH 2245 Abnormal Psychology: 3 semester hours**

Prerequisite: PSYCH 1003. This course examines the historical views and current perspectives on the possible antecedents, symptoms, and treatments of major psychological disorders, including anxiety, dissociative, mood, somatoform, eating, schizophrenia and substance-related disorders. Major diagnostic categories and criteria, individual and social factors of maladaptive behavior, methods of clinical assessment, research strategies, and types of therapy will also be covered. All psychology majors must complete this course with a grade of C- or higher.

**PSYCH 2270 Developmental Psychology: Infancy, Childhood And Adolescence: 3 semester hours**

Prerequisites: PSYCH 1003. This course systematically examines theories and research concerning the physical, social, emotional, and cognitive development of children from conception through adolescence. It will provide students with a basic knowledge of infant, child, and adolescent development; its subject matter; its approaches to gathering and evaluating evidence about the causes of behavior; and the ways in which our knowledge is applied to enhance the development and the quality of life of children. It is intended for Psychology majors and students with career interests in research, education, and/or the treatment of children. All Psychology majors taking this course instead of PSYCH 2160, must complete it with a grade of C- or higher.

**PSYCH 2272 Developmental Psychology: Adulthood And Aging: 3 semester hours**

Same as GERON 2272. Prerequisite: PSYCH 1003. Personality, social, and physiological development from the onset of early adulthood through maturity and old age.

**PSYCH 2280 Psychology Of Death And Dying: 3 semester hours**

Same as GERON 2280. Prerequisites: PSYCH 1003. A beginning exploration of end-of-life issues integrating the scholarly, social, and individual dimensions of death and dying. This course provides a solid grounding in theory and research, as well as practical application to students' lives.

**PSYCH 2285 American Culture and Minority Mental Health: 3 semester hours**

Prerequisites: PSYCH 1003. Provides an examination of the relationship between American culture and mental health. The focus is on the lives of American minority groups, with specific attention given to how racism, prejudice, and minority status currently reveal themselves within a mental health framework. An eclectic, multidisciplinary approach that draws from clinical and social psychology will be utilized.

**PSYCH 3205 Evolutionary Psychology: 3 semester hours**

Prerequisites: PSYCH 2211. Evolutionary Psychology refers to a fundamentally unique approach to studying and thinking about human and animal behavior through considerations of 1. The challenges and stressors encountered in ancestral environments, 2. The proximate physical, psychological, and anatomical methods that evolved to meet these adaptive problems, and 3. How adaptive or maladaptive these mechanisms are in current environments. Special emphasis will be placed on the evolution of brain structures, cognitive processes, and social behaviors. The content for this course is not new; Evolutionary Psychology involves looking at the science of Psychology through a unique lens, shaped by its tenets. Although appreciation for this approach to psychological research is increasing, it remains controversial in psychology circles. We will discuss the state of this aspect of Psychology as well.

**PSYCH 3256 Environmental Psychology: 3 semester hours**

Prerequisites: PSYCH 2160 or SOC 2160 Analysis of environmental influences on behavior and man's influence, in turn, on the environment. Topics will include a consideration of both individual processes relating to the environment (such as the perception, evaluation, and adaptation to the environment) and social processes relating to the environment (such as privacy, territoriality, and crowding).

**PSYCH 3290 Traumatic Stress in Childhood and Adolescence: 3 semester hours**

Same as CAST 3290. Prerequisites: PSYCH 2270 (majors), PSYCH 1268, or approval from the instructor. Exploration of the impact of stressors experienced during infancy, childhood and adolescence. Integrates how theoretical frameworks, cultural considerations and policy implications apply to child development research and practice.

**PSYCH 3316 Fundamentals Of Leadership: 3 semester hours**

Prerequisites: PSYCH 1003 and six additional hours of Psychology, or consent of instructor. This course addresses concepts and methods for developing leadership skills in work and everyday settings. Contemporary approaches to leadership development are reviewed in relation to psychological and organizational theory. This course is designed to be relevant to the wide range of leadership opportunities that arise in work and daily life. Experiential exercises are used to help students discover and develop new leadership skills.

**PSYCH 3318 Industrial And Organizational Psychology: 3 semester hours**

Same as MGMT 3623. Prerequisite: PSYCH 2201 or MGMT 3600. This course introduces the student to psychological research and theories pertaining to human behavior in the work setting. Topics covered include: selection, performance appraisal, training, leadership, motivation, job satisfaction, and organizational design.

**PSYCH 3340 Clinical Problems Of Childhood: 3 semester hours**

Prerequisite: PSYCH 1003 and six additional hours of Psychology, or consent of instructor. This course will address the clinical disorders and difficulties of children, as well as the causes and the treatment of these disorders. Topics addressed include autism, childhood schizophrenia, conduct disorders, learning disabilities, ADHD, mood disorders, health-related disorders, anxiety disorders, and child maltreatment. Treatments designed for specific use with children, including behavioral, drug and community mental health approaches will be addressed. This course is recommended for those going on to graduate work in psychology.

**PSYCH 3346 Introduction To Clinical Psychology: 3 semester hours**

Prerequisite: PSYCH 1003, PSYCH 2245; and three additional hours of Psychology. This course provides a conceptual framework for research, description and understanding of clinical phenomena. Assessment, interviewing, the clinical use of tests and psychological approaches to treatment are also addressed.

**PSYCH 3390 Directed Studies: 1-6 semester hours**

Prerequisite: Consent of instructor Directed reading and research. May be repeated for a maximum total of ten hours.

**PSYCH 3400 Conceptual and Historical Foundations of Psychology: 3 semester hours**

Prerequisite: PSYCH 1003 and three additional hours of Psychology. This course addresses basic questions about human life debated throughout the history of the West that are present in contemporary Psychology. These include the relation between mind and body, how we know about the world, the nature of morality, and how we think and feel. Greek and Judeo-Christian traditions, and science and religion, have provided distinct, fundamental approaches to how these questions have been asked and answered. This course examines these and related historical, conceptual, and theoretical foundations underlying contemporary Psychology.

**PSYCH 3500 Health Psychology: 3 semester hours**

Prerequisite: PSYCH 1003 and three additional hours of Psychology. Health Psychology involves the discipline and principles of psychology and behavior in understanding how the mind, body, and behavior interact in health and disease. Class topics include theoretical foundations of health and illness, health promotion and primary prevention of illness, health enhancing and health damaging behaviors, psychosomatic illness, stress and coping, pain management, and a variety of specific behavior-related medical illnesses (e.g., heart disease, eating disorders, cancer, AIDS).

**PSYCH 3820 Cross-Cultural Psychology: 3 semester hours**

Prerequisites: PSYCH 1003 and 9 hours of Psychology The purpose of this course is to present students with a broad theoretical and applied overview of cross-cultural psychology. To this end, the course presents an orientation to the definitions, concepts, theories, and methodologies of crosscultural psychology. Included is an examination of cultural and ecological factors and their influences on perceptual and cognitive processes, personality, language, and other psychological variables.

**PSYCH 4300 Introduction To Psychopharmacology: Drugs And Mental Illness: 3 semester hours**

Prerequisites: PSYCH 1003, PSYCH 2211 or PSYCH 2200; PSYCH 2245. The course is designed to provide an introduction to drugs used to treat anxiety disorders, major depression, schizophrenia, and other psychopathologies. The emphasis will be on understanding neural mechanisms related to psychological disorders and to the effectiveness of current drug treatments.

**PSYCH 4305 Developmental Psychology: Cognitive Development of Children: 3 semester hours**

Prerequisites: PSYCH 1003, PSYCH 2270, and Junior standing, or consent of instructor. Data and theory concerned with how children's thinking changes over time. Discussion will include domain-general versus domain-specific theories, social and cultural influences on cognition, gains in memory, attention, problem solving, and metacognition, conceptual development, children's naive theories, schooling, and various definitions and measures of intelligence.



**PSYCH 4311 Psychology Of Nonverbal Behavior: 3 semester hours**

Prerequisite: PSYCH 2160 or PSYCH 2160. This course examines the psychological perspective on the role of nonverbal behavior in social settings. Primary concerns of the course will include an analysis of the functions of nonverbal behavior (e.g., providing information, regulating interaction, expressing intimacy, exercising influence, and managing impressions), factors influencing nonverbal expression (e.g., culture, personality, relationships), and various theoretical views on nonverbal communication. Applications to various problems and settings in everyday life will also be pursued.

**PSYCH 4314 Behavioral Neuroscience: 3 semester hours**

Prerequisites: 9 hours of Psych and/or Biology: PSYCH 2211 is recommended but not required. A neuroscience course focusing on behavioral outcomes of brain function and dysfunction. Emphasis will be on modern research methods with animal models and humans. Topics discussed will include the classic findings in the field, but the emphasis will be on recent findings from human neuropsychology, neuroimaging, cognitive neuroscience, neuropharmacology, and neuroendocrinology.

**PSYCH 4316 Developmental Psychology: Social Development of Children and Adolescents: 3 semester hours**

Prerequisites: PSYCH 1003, PSYCH 2270, and Junior standing, or consent of instructor. This course examines data and theory concerned with social behavior in infants, preschoolers, and school-aged children. Discussion will include emotional regulation; measurement and nature of temperament; the formation and maintenance of attachment relationships; sex-role development; and theories of aggression and the effects of socializing agents such as family, peers, media, and culture on development.

**PSYCH 4330 Hormones, The Brain And Behavior: 3 semester hours**

Prerequisites: 9 hours of Psychology or Biology, including at least one of the following: PSYCH 2200, PSYCH 2211, or PSYCH 4300 or permission of instructor. This course may be taken for graduate credit with permission of the instructor. Historically, hormones have been studied for their role in reproduction, including reproductive physiology and sexual behaviors. It is now clear, however, that the endocrine system actively interacts with brain regions unrelated to reproduction with the result that sex hormones and neuropeptide hormones influence a wide range of behaviors including mood, anxiety, stress responses, cognition, memory, violence, attachment, aging, weight control and athletic prowess. Emphasis of the class is on hormonal contribution both to reproductive and non-reproductive behaviors with special attention paid to gender behavioral differences.

**PSYCH 4349 Human Learning And Memory: 3 semester hours**

Prerequisite: Nine hours of psychology or consent of instructor. This course is an introduction to classic and contemporary theories, methodologies, and theoretical perspectives used in the fields of learning and memory. The course will explore the various divisions of memory along with processes involved in the acquisition, retention, and retrieval of information. Some of the specific topics include infantile amnesia, false memory, flashbulb memories, and photographic memory. The course will explore various theories of learning as well as optimal conditions for the long-term retention of information.

**PSYCH 4356 Cognitive Processes: 3 semester hours**

Prerequisite: Nine hours of psychology or consent of instructor. This course is an overview of the major topics in cognitive psychology, including perception, visual imagery, attention, memory, knowledge representation and retrieval, language, problem solving, reasoning, judgment, decision making, and intelligence.

**PSYCH 4365 Psychological Tests And Measurements: 3 semester hours**

Prerequisites: Grade of C- or above in PSYCH 2201 and PSYCH 2219, or consent of instructor. This course is a survey of the basic principles, research, and theories on testing and measurement of psychological constructs. Students will critically examine several professionally developed tests and learn about the administration, interpretation, and psychometric qualities of each.

**PSYCH 4374 Introduction To Clinical Neuropsychology: 3 semester hours**

Prerequisites: Nine hours of Psychology. An introduction to current theory and practice of clinical neuropsychology with a focus on neuropsychological findings concerning relationships between the brain and behavior. Particular attention is devoted to function, neuroanatomy, neurological syndromes, patterns of brain impairment associated with various medical diseases, and methods of neuropsychological assessment and intervention.

**PSYCH 4376 Mental Health And Aging: 3 semester hours**

Same GERON 4376 and SOC WK 4376. Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) This course provides a survey of theory and research in mental health issues for older populations, focusing on psychological and social aspects of mental health and impairment. The course details approaches to understanding prevalence, etiology, assessment, and treatment of the psychological disorders most commonly experienced by older adults, including anxiety, depression, delirium, and dementia, among others.

**PSYCH 4392 Selected Topics In Psychology: 1-3 semester hours**

Prerequisite: Twelve hours of psychology and consent of instructor. A seminar of selected issues and methods in psychology. May be repeated once for credit.

**PSYCH 4398 Child Maltreatment: A Multidisciplinary Approach: 3 semester hours**

Same as SOC WK 4398 and CAST 4398. Focuses on clinical aspects of child abuse with attention to identification, reporting, intervention and prevention. Perspectives from the disciplines of psychology and social work are provided.

**PSYCH 4698 Internship in Child Advocacy Studies: 3 semester hours**

Same as CAST 4698. Prerequisites: PSYCH 4398, completion of or concurrent enrollment in PSYCH 4498 and PSYCH 4598, and approval from the CAST director. Internship under CAST staff supervision in child or youth-serving setting. Monthly seminar participation required. Approval from the CAST director is required prior to enrolling.

**PSYCH 4999 Integrated Psychology: 2 semester hours**

Prerequisites: This course is restricted to Psychology majors and must be taken during majors' final semester of study. This capstone course serves as a review of the primary sub-fields of psychology. An advanced general psychology textbook will guide the class through important contemporary topics in behavioral neuroscience, learning and memory, cognition, psychopathologies and their treatments, and developmental and social psychology. The Major Field Aptitude Test in Psychology will serve as the final exam for the course. All Psychology majors must complete this course with a grade of C- or higher.

**PSYCH 5001 Neuropsychological Assessment: 3 semester hours**

Prerequisites: Admission to Psychology graduate program, or consent of instructor. This graduate level course will review neuroanatomical systems that mediate primary cognitive networks and methods of assessments and interpretation of data. The course will also review common neurological and psychiatric conditions that result in neuropsychological compromise.

**PSYCH 5340 Human Neuroanatomy: 3 semester hours**

Prerequisites: Admission to graduate program in psychology or consent of instructor. This course provides an overview of brain anatomy for graduate students in psychology and related disciplines. It explores the structure and function of the human nervous system both in health and disease. The course will cover core concepts from cellular neuroscience, neuroimaging and neuroanatomical techniques, sensory and motor systems, and the anatomical basis of cognitive functions.

**PSYCH 5400 Seminar: Special Topics in Behavioral Neuroscience: 1 semester hour**

Prerequisites: Admission to the graduate program in behavioral neuroscience or consent of the instructor. A seminar of selected contemporary topics in behavioral neuroscience. The class will meet weekly to discuss a journal article in the field with special focus on the methodologies used in neuroscience research. May be repeated for a total of 3 credit hours, provided the subject matter is different.

**PSYCH 5407 Psychopharmacology: 3 semester hours**

Prerequisite: 12 units of graduate-level. An examination of the effects of drugs on the brain and on behavior. Primary emphasis is on those drugs used in the treatment of affective disorders, schizophrenia and anxiety.

**PSYCH 5465 Seminar: Behavioral Neuroscience: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Behavioral neuroscience is the study of the relation of the brain to behavior. The field has emerged as the new face of psychology; there are few subfields in psychology that have not been influenced by findings from animal labs, and from human studies employing physiological recordings, neuroimaging and psychotherapeutic drugs. This course will serve as an introduction for graduate students in psychology of brain morphology and function with an emphasis on normal and pathological behaviors.

**PSYCH 5468 Seminar: Cognitive Processes: 3 semester hours**

Prerequisites: Admission to the Graduate Program in Psychology or consent of instructor. This course is an introduction to classic and contemporary theories, methodologies, and theoretical perspectives used in the field of cognitive psychology. The emphasis is on basic research in the field of cognitive psychology but some applications of these experiments are discussed as well. The class will read and discuss chapters from cognitive psychology textbooks as well as classic and contemporary empirical journal articles in cognitive Psychology.

**PSYCH 5610 Mechanisms Of Aging I: The Aging Body: 1 semester hour**

Same as SOC WK 5610 and GERON 5610. Prerequisites: Graduate standing and BIOL 1102 or equivalent. (MSW students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social sciences/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

**PSYCH 5611 Mechanisms Of Aging II: The Aging Brain: 1 semester hour**

Same as SOC WK 5611 and GERON 5611. Prerequisites: GERON 5610 or SOC WK 5610 or PSYCH 5610 or equivalent or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

**PSYCH 5612 Mechanisms Of Aging III: Diseases Of Aging: 1 semester hour**

Same as SOC WK 5612 and GERON 5612. Prerequisites: GERON 5610 and GERON 5611, or SOC WK 5610 and SOC WK 5611, or PSYCH 5610 and PSYCH 5611 or equivalent or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course). Provides students with a social sciences/humanities background with the information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.

**PSYCH 6415 Seminar in Health Psychology & Behavioral Medicine: 3 semester hours**

Prerequisites: Consent of instructor. This course analyzes research, theory, and clinical applications in the interrelationships of behavior, psychological states, physical health and disease. Discussion includes theoretical foundations of health and illness, biopsychosocial factors affecting health and illness, diagnostic issues, prevention, Interdisciplinary treatment applications, health and public policy, and research issues. Critical evaluation of theory and empirical support for clinical applications will be discussed.

**PSYCH 6441 Aging And Health Behavior: 3 semester hours**

Same as GERON 6441. Prerequisite: Graduate standing. This course examines sociocultural influences on health care practices of older adults. The role of social support and other social resources in the health behavior of older adults is emphasized. Topics include self care decisions, formal service utilization, family caregiving, and planned interventions for older adults.

**PSYCH 6448 Multicultural Issues In Clinical Psychology: 3 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. A survey of theoretical perspectives utilized in the treatment of various cultural groups. Their relationship to and implications for the treatment of members of various cultural groups will be explored. Strategies and ethical concerns in diagnosis, test interpretation, and treatment are considered.

**PSYCH 6466 Seminar: Developmental Psychology: 1-3 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. A critical examination of contemporary problems in developmental psychology.

**PSYCH 7403 Psychopathology: 3 semester hours**

Prerequisite: Admission To Clinical Psychology Program Or Permission Of Instructor. A Critical Examination Of The Clinical-Experimental Literature In Psychopathology. Etiologies Of Cognitive/Affective Functions And Dysfunctions Are Explored, And Implications For Therapeutic Interventions Are Considered.

**PSYCH 7404 Introduction To Clinical Assessment I: 4 semester hours**

Prerequisites: Admission to Clinical Psychology program. Fundamentals of clinical assessment with emphasis on interviewing and the measurement of cognitive functioning. This course includes a laboratory.

**PSYCH 7405 History And Systems In Psychology: 3 semester hours**

Prerequisites: Admission to Clinical Psychology program or consent of instructor. A comprehensive overview of the history of psychology with emphasis on the systems of thought that have shaped contemporary psychological theory and research.

**PSYCH 7406 Introduction To Clinical Assessment II: 4 semester hours**

Prerequisites: PSYCH 7404. This course addresses theory and techniques of personality assessment including clinical interviewing, objective and projective assessment, and integrative report writing.

**PSYCH 7410 Women And Mental Health: 3 semester hours**

Same as GS 6410. Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. This course will focus on contemporary research on the psychology of women pertaining to mental health issues. Etiology and treatment of disorders disproportionately affecting women will be emphasized.

**PSYCH 7412 Social Psychology: 3 semester hours**

Prerequisites: Admittance to psychology doctoral program or consent of instructor. A review of key areas in contemporary theory and research in social psychology.

**PSYCH 7419 Existential Issues In Clinical Psychology: 3 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. This course will review existential thought in psychology and its application to understanding clinical problems and treatment. Particular attention will be given to how psychotherapy can be understood within an existential framework that focuses on the issues of death, freedom, responsibility, and isolation.

**PSYCH 7421 Quantitative Methods I: 4 semester hours**

Prerequisites: Admission to the Graduate Program in Psychology or consent of instructor. A comprehensive study of univariate statistical concepts and analyses used in psychological research. Topics include descriptive statistics, normal distributions, z, t, F, chi-square statistics, and distributions. Correlation, simple and multiple regression, factorial and repeated measures analysis of variance, significance testing and effect size are also examined.

**PSYCH 7422 Quantitative Methods II: 4 semester hours**

Prerequisites: PSYCH 7421 and consent of instructor (With laboratory) A comprehensive study of the use of multivariate statistics in data analysis. Topics include the general linear model, multiple regression, factor analysis, and multivariate analysis of variance.

**PSYCH 7423 Quantitative Methods III: 3 semester hours**

Prerequisites: PSYCH 7422 and PSYCH 7429 and consent of instructor. A selective study of the use of multivariate statistics in data analysis. Topics include structural equation modeling, multilevel modeling, and analysis of longitudinal data.

**PSYCH 7429 Psychometric Theory: 3 semester hours**

Prerequisites: PSYCH 7421, PSYCH 7422 and consent of instructor A consideration of classical and modern theories of psychological testing. Topics include test reliability, validity and construction.

**PSYCH 7430 Introduction To Clinical Skills: 1 semester hour**

Prerequisites: Admission to doctoral program in clinical psychology. An introduction to processes and procedures involved in psychotherapy.

**PSYCH 7431 Clinical Supervision: 1-3 semester hours**

Prerequisite: Admission to Clinical Psychology Program. Supervised experience in clinical practice. May be repeated six times for credit.

**PSYCH 7432 Ethics And Professional Issues: 3 semester hours**

Prerequisites: Admission to Clinical Psychology program. A study of issues in professional development, clinical supervision, risk management, and ethical standards as they relate to teaching, research, and professional practice.

**PSYCH 7433 Clerkship in Clinical Psychology: 1 semester hour**

Prerequisites: Admission to the doctoral program in Clinical Psychology. Supervised training in an affiliated agency or organization following completion of two years of course work. (May be repeated 3 times).

**PSYCH 7434 Introduction to Clinical Interventions: 3 semester hours**

Prerequisites: Admittance to Clinical Psychology program and PSYCH 7406. This course focuses on conceptual and methodological issues that are central to the development, evaluation and application of interventions in clinical psychology. Topics include efficacy and effectiveness research, introduction to theories of behavior change, and applications with specific populations.

**PSYCH 7439 Summer Supervision: 1 semester hour**

Prerequisites: PSYCH 7431 Supervised experience in clinical practice at all graduate year levels during the summer months. Can be repeated for credit.

**PSYCH 7442 Seminar: Cognitive And Behavioral Interventions: 3 semester hours**

Prerequisites: PSYCH 7434 This course focuses on the theory and practice of cognitive-behavioral interventions in the field of clinical psychology.

**PSYCH 7447 Trauma And Recovery: 3 semester hours**

Prerequisites: Graduate Trauma Studies Certificate A comprehensive seminar on the psychological effects associated with exposure to potentially traumatic events. The course will include information on the history of trauma studies; definitions of stressful and traumatic events; common responses to these events; theoretical models for conceptualizing traumatic responses; information on specific types of traumatic events; and issues in treatment.

**PSYCH 7449 Research Methods and Project Development In Applied Psychology: 1-3 semester hours**

Prerequisite: Admission to the Graduate Program in Psychology or consent of instructor. This course focuses on the basics of conducting research in Industrial-Organizational Psychology. Topics include: philosophy of science; reliability and validity; experimental, quasi-experimental, and non-experimental designs; power; meta-analysis; survey/item analyses; and cross-cultural methods. In addition, the course includes group supervision of initial research that leads to thesis or dissertation proposals. Can be taken up to three times for a total of 6 credit hours.

**PSYCH 7450 Clinical Internship I: 1-9 semester hours**

Prerequisite: Consent of advisor. Formal, one year, full-time internship providing student with in-depth supervised training within a site approved by the American Psychological Association. This course is repeated in the fall and spring semesters of the internship year.

**PSYCH 7451 Clinical Internship II: 1-9 semester hours**

Prerequisite: PSYCH 7450 and consent of advisor. Formal, one-year, full-time internship providing student with in-depth supervised training within a site approved by the American Psychological Association. (Taken in the final summer of the internship).

**PSYCH 7454 Seminar: Personnel Psychology: 3 semester hours**

An analysis of theories and research in personnel and industrial psychology. Topics include testing, assessment centers, performance appraisal, and interviewing.

**PSYCH 7455 Seminar: Organizational Psychology: 3 semester hours**

An analysis of theories and research in organizational psychology. Topics include theories of motivation, leadership, job design, group process decision-making, organizational effectiveness, and the relation between organizations and their environment.



**PSYCH 7457 Seminar: Special Topics In Industrial Psychology: 3 semester hours**

A seminar of selected issues and methods in personnel psychology.

**PSYCH 7458 Seminar: Special Topics In Organizational Psychology: 3 semester hours**

A seminar of selected issues and methods in organizational psychology.

**PSYCH 7459 Practicum In Industrial/Organizational Psychology: 1-4 semester hours**

Supervised experience in personnel or human resource management.

**PSYCH 7461 Summer Research in I/O Psychology: 1 semester hour**

Prerequisites: Admission to I/O program. Supervised experience on research topics in I/O psychology at all graduate year levels during the summer months. Can be repeated for credit.

**PSYCH 7464 Field Experiences in Industrial-Organizational Psychology: 3 semester hours**

Prerequisites: PSYCH 7454 and PSYCH 7455 or consent of instructor.

The course focuses on the innovative application of psychological theory and principles to solving some pressing human resources issues, including actual organizational projects. Through readings, discussions and projects, students obtain hands-on experience with applied psychological issues, striking the needed balance between the theoretical and applied components of Industrial-Organizational psychology.

**PSYCH 7465 Applied Issues In Organizational Psychology: 3 semester hours**

Prerequisites: PSYCH 7455 or consent of instructor course focuses on the application of psychological theory and principles to organizational development consulting. While such consulting is ultimately intended to enhance organizational level functioning, applications of this approach begin with learning at the individual and small group levels. In this course, students work through real-world cases that address real organizational problems. In addition to this casework, the readings and class discussions will address the theoretical and practical links between individual/team learning and organizational development.

**PSYCH 7466 Seminar Series in Industrial/Organizational Psychology: 1 semester hour**

Prerequisites: Open only to students in the I/O Psychology Graduate Program. A seminar series involving speakers, presentations, and discussions focusing on applied and theoretical perspectives, techniques, and research in the field of Industrial/Organizational Psychology. May be taken up to 6 times for credit.

**PSYCH 7469 I/O Professional Issues And Ethics: 3 semester hours**

Prerequisite: Consent of Instructor In this course students learn the ethical standards as they relate to teaching, research and professional practice in industrial organizational psychology. Other professional and career issues are also discussed.

**PSYCH 7472 Special Topics In Psychology: 1-3 semester hours****PSYCH 7474 Clinical Research In Applied Settings: 3 semester hours**

Prerequisites: PSYCH 7421 and PSYCH 7422 This course provides information on the design and implementation of research in applied settings (e.g., human service agencies). Topics include program evaluation, consultation models, risk factor analysis, presentation and health promotion, and quality control.

**PSYCH 7476 Seminar In Developmental Psychopathology: 2 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. Introduction to principles, theory, and methods of study in the field of clinical child psychology. Emotional and behavioral dysfunctions are considered from developmental and socialization perspectives.

**PSYCH 7477 Clinical Intervention with Children and Families: 3 semester hours**

Prerequisite: PSYCH 7434 and PSYCH 7476. This course provides an overview of the theory and practice of clinical interventions with children, adolescents, and families.

**PSYCH 7478 Directed Research In Industrial/Organizational Psychology: 1-4 semester hours**

Independent study of an issue in industrial/organizational psychology through the application of research techniques.

**PSYCH 7479 Directed Readings In Industrial/Organizational Psychology: 1-4 semester hours**

Independent literature review of a topic in industrial/organizational psychology.

**PSYCH 7483 Directed Research: 1-10 semester hours****PSYCH 7484 Directed Readings: 1-10 semester hours****PSYCH 7485 Research Team I: 2 semester hours**

Group supervision of beginning research leading to the Independent Research Project.

**PSYCH 7486 Research Team II: 2 semester hours**

Prerequisites: Completion of Independent Research Project or third year standing in doctoral program in clinical psychology. Group supervision of advanced research related to dissertation proposal and program's comprehensive examination required for doctoral candidacy.

**PSYCH 7487 Thesis Research Project: 1 semester hour**

Prerequisites: Admission to the doctoral program in clinical psychology. Supervised original research project of a clinically-related topic.

**PSYCH 7488 Specialty Examination Research: 1-6 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology. Supervised original review and analysis of a clinically-related topic.

**PSYCH 7491 MA Thesis Research: 1-10 semester hours****PSYCH 7492 Ph D Thesis Research: 1-10 semester hours**



# College of Business Administration

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College of Business Administration Home Page (<http://www.umsl.edu/divisions/business>)

## History

The University of Missouri - St. Louis College of Business Administration was established in 1967, and was accredited by AACSB-International six years later, the shortest time on record for any school to receive accreditation of its business program. AACSB-International is the only internationally recognized accrediting agency for business and accounting programs. In 2006, the College of Business Administration received reaccreditation of its business and accounting programs, both undergraduate and graduate.

## Vision

The UMSL College of Business Administration will become one of the top metropolitan public business schools in the country and be recognized as a leading student-centered provider of quality business education.

## Mission

Our mission is to increase knowledge of business and to support St Louis in its quest to compete in the global economy. We will accomplish this by:

- Performing innovative research on relevant business issues,
- Providing quality, affordable business education to our diverse student body and the community, and
- Partnering for excellence with the St Louis business community.

## Values

**Opportunity:** We are committed to providing students an opportunity to excel in a rigorous academic business program.

**Knowledge:** We value the creation, application, and communication of knowledge to advance business disciplines and improve management practices.

**Access:** We strive to ensure that our programs are accessible and consistent with the land-grant mission of the University of Missouri.

**Integrity:** We value high standards of professional and ethical conduct.

**Excellence:** We strive for excellence in our own endeavors and expect it of those with whom we work.

**Community:** We value our ties with the business and not-for-profit communities, and work to create opportunities of mutual benefits.

**Respect:** We endeavor to treat all people with dignity and respect, and to maintain fairness in our interactions with all students, employees and the community.

**Diversity:** We seek to maintain a diverse and involved community of students, faculty, and staff.

**Collegiality:** We seek to provide a collegial climate that fosters positive relationships among students, faculty and staff.

## College of Business Administration Programs

### Undergraduate Degrees

- Bachelor of Science in Accounting
- Bachelor of Science in Business Administration (with emphasis areas available in)
  - Finance
  - International Business
  - Logistics and Operations Management
  - Management
  - Marketing
- Bachelor of Science in Information Systems

### Undergraduate Minors

- Accounting
- Finance
- General Business
- Information Systems
- International Business
- Logistics and Operations Management
- Management
- Marketing
- Transportation Studies

### Undergraduate Certificate

- International Business Certificate (see International Studies)

### Graduate Degrees

- Master of Accounting
- Master of Business Administration
- Accounting
- Finance
- Information Systems
- International Business
- Logistics and Supply Chain Management
- Management
- Marketing
- Operations Management
- Master of Science in Management Information Systems
- Ph.D. in Business Administration
- Information Systems
- Logistics and Supply Chain Management

### Graduate Certificates

- Graduate Certificate Program in Business Administration
- Graduate Certificate in Human Resources Management
- Graduate Certificate in Logistics and Supply Chain Management
- Graduate Certificate in Marketing Management

## Undergraduate Study

Detailed information concerning all degree requirements can be found by visiting The College of Business Undergraduate Advising web site ([http://www.umsl.edu/divisions/business/undergrad\\_advising](http://www.umsl.edu/divisions/business/undergrad_advising)).

### Admission Requirements

Students entering UMSL may declare themselves as business majors in the College of Business Administration (COBA). They are advised by business and may take business courses as long as they maintain “good standing” status (see General Degree Requirements listed below) and have satisfied the prerequisites for the courses they propose to take.

### General Degree Requirements--all degrees--all students

- Students must complete a minimum of 120 credit hours for any baccalaureate degree from the College of Business Administration.
- Students must complete a minimum of 60 non-business hours.
- Students must complete a minimum of 48 hours in business courses.
- Students must complete a minimum of 36 hours of upper division business courses.
- Students are limited to a maximum of 24 credit hours in any single business discipline beyond core courses.
- Students are limited to a maximum of 78 credit hours in business and economics combined.
- Students must attain a minimum campus grade point average of 2.3. Grade modification may be used in calculating this grade point average.
- Students must attain a minimum business grade point average of 2.3. Grade modification cannot be used in calculating this grade point average.
- Students seeking an emphasis area or major within the Bachelor of Science in Business Administration degree, Bachelor of Science in Accounting degree, and/or Bachelor of Science in Information Systems degree must attain a minimum grade point average of 2.3 in the emphasis/major. Grade modification cannot be used in calculating this grade point average.
- A minimum grade of C- is required for each course in the business core (except MGMT 4219); for each course which serves as a prerequisite for another course; and for each course in an emphasis area and/or major.
- Of the maximum of 18 hours which may be taken on a satisfactory/unsatisfactory graded basis, only 9 hours can be in business, and those are restricted to electives—courses beyond the required business core courses.
- Business course prerequisites are enforced by the College of Business Administration and include a minimum campus grade point average of 2.0 as a condition for taking any upper division business course.
- Emphasis areas may be added for up to two years following degree completion. Each additional degree from the College of Business Administration requires 15 unique hours taken at UMSL subsequent to completion of the prior business degree.
- Students are allowed to take a maximum of 15 hours of upper-division business classes before a “good standing” evaluation is applied to their academic records. In order to remain in good standing and continue to enroll in upper division business courses, students must maintain a 2.3 campus and business grade point average and must have completed the following cluster of courses (with a grade of C- or higher):

ACCTNG 2400	Fundamentals Of Financial Accounting	3
ACCTNG 2410	Managerial Accounting	3
BUS AD 2900	Legal Environment Of Business	3
ECON 1001	Principles Of Microeconomics	3
ECON 1002	Principles Of Macroeconomics	3
INFSYS 2800	Information Systems Concepts And Applications	3
MATH 1030	College Algebra	3
MATH 1100	Basic Calculus	3
MATH 1105	Basic Probability And Statistics	3

### Lower Division Requirements--all degrees--all students

Each student must complete a 42-hour block of general education coursework (<http://bulletin.umsl.edu/generaleducationrequirements>) fulfilling six goals--three skill goals and three knowledge goals. The skill goals include two courses in communicating, one course in managing information and one course in valuing. The knowledge goals include three courses in the social sciences, three courses in the humanities, and four courses in the combined areas of mathematics and science. All courses must be selected from a list (<http://bulletin.umsl.edu/generaleducationrequirements>) approved by the Faculty Senate of the campus. In many instances courses required by the College of Business Administration for each of its degree programs will satisfy a segment of the general education requirements. A list of courses which fulfill the humanities, social science, and math/science knowledge goals can be obtained in the Office of Undergraduate Academic Advising in the College of Business Administration, 487 Social Sciences and Business (SSB) building; or by visiting our web site (<http://www.umsl.edu/divisions/business>).

### Lower Division Non-Business Course Requirements

Students pursuing any undergraduate business degree must complete the following non-business courses:

ECON 1001	Principles Of Microeconomics	3
ECON 1002	Principles Of Macroeconomics	3
ENGL 1100	First-Year Writing	3
One additional "communicating skills goal" course		
MATH 1030	College Algebra	3
MATH 1100	Basic Calculus	3
MATH 1105	Basic Probability And Statistics	3
A science lecture course (math/science knowledge goal)		
A cultural diversity course		
A course required by the state of Missouri		
Three humanities courses (humanities knowledge goal)		
Two social science courses (in addition to those above)		

### Lower Division Business Course Requirements

ACCTNG 2400	Fundamentals Of Financial Accounting	3
ACCTNG 2410	Managerial Accounting	3
BUS AD 2900	Legal Environment Of Business	3
INFSYS 2800	Information Systems Concepts And Applications	3
Total Hours		12

## Upper Division Requirements—all degrees--all students

### Upper Division Non-Business Requirement

ENGL 3120 Business Writing (with a minimum grade of C-) 3

### Upper Division Non-Business or Business Requirement

Two global awareness courses selected from an approved list maintained in the Office of Undergraduate Academic Advising in the College of Business Administration; also available on our web site ([http://www.umsl.edu/divisions/business/undergrad\\_advising/Undergraduate%20Programs/requirements.html#global](http://www.umsl.edu/divisions/business/undergrad_advising/Undergraduate%20Programs/requirements.html#global)). (<http://www.umsl.edu/divisions/business>)

### Upper Division Business Requirements

FINANCE 3500	Financial Management	3
LOG OM 3300	Business Statistics	3
LOG OM 3320	Introduction To Operations Management	3
MGMT 3600	Management And Organizational Behavior	3
MGMT 4219	Strategic Management	3
MKTG 3700	Basic Marketing	3
A minimum of 18 additional hours of upper division approved business electives		18
Total Hours		36

### Assessment—All degrees--all students

MGMT 4220 Business Assessment Testing (A "Satisfactory" grade is required for graduation.) 0

### Transfer Issues

Students must complete a minimum of 60 hours from four year, baccalaureate degree granting colleges/universities.

A minimum of 50% of all business course work must be completed at UMSL.

Students must complete a minimum of 21 graded hours in business courses.

Individuals must complete their last 30 hours in residence at UMSL.

A minimum of 56 graded hours at UMSL are required to qualify for consideration for Latin Honors.

Students seeking to use a lower division course to satisfy an upper division business requirement must validate the course being transferred. If successfully validated, the transfer course will waive the need to take the upper division equivalent course at UMSL, but the course transferred will be counted as lower division; it will not count toward the 36 upper division hours required in business.

Completion of a 42-hour general education block, which is certified by the sending institution as fulfilling its general education requirement, will be viewed as fulfilling UMSL's general education requirement. However, all lower division courses required as part of a degree program at UMSL must be completed.

## Bachelor of Science in Accounting Degree

Lower or Upper Division Courses Required 6

One of:

ACCTNG 3460 Accounting Career Strategies (p. 252)  
or COMM 1040 Introduction To Public Speaking (p. 252)

PHIL 1130 (p. Approaches To Ethics 252)  
or PHIL 2254 Business Ethics (p. 252)

Upper Division Accounting Courses Required: <sup>1</sup>

ACCTNG 3401	Financial Accounting And Reporting I (p. 252)	3
ACCTNG 3402	Financial Accounting And Reporting II (p. 252)	3
ACCTNG 3411	Cost Accounting (p. 252)	3
ACCTNG 3441	Income Taxes (p. 252)	3
ACCTNG 3421	Accounting Information Systems (p. 252)	3
or INFSYS 3810 Information Systems Analysis (p. 252)		
Total Hours		21

<sup>1</sup> The prerequisite for enrollment in ACCTNG 3402 (p. 252), ACCTNG 3411 (p. 252), ACCTNG 3441 (p. 252), ACCTNG 3451 (p. 252), ACCTNG 3460 (p. 252) and all 4000-level accounting courses is an upper-level accounting grade point average of 2.3. or higher.

See the Office of Undergraduate Academic Advising for alternatives to satisfy the State of Missouri's requirement of 150 hours for eligibility to take the Uniform Certified Public Accounting Examination.

## Post-Baccalaureate Certificate in Accounting

### Prerequisite

Bachelor's degree (in any subject)

### Prerequisite Courses

MATH 1030	College Algebra <sup>1</sup>	3
ACCTNG 2400	Fundamentals Of Financial Accounting <sup>2</sup>	3
ACCTNG 2410	Managerial Accounting <sup>2</sup>	3

<sup>1</sup> MATH 1030 College Algebra is a prerequisite for the required accounting courses. It may be taken concurrently with ACCTNG 2400 Fundamentals Of Financial Accounting, but must be completed prior to enrollment in ACCTNG 2410 Managerial Accounting.

<sup>2</sup> ACCTNG 2400 Fundamentals Of Financial Accounting and ACCTNG 2410 Managerial Accounting are also prerequisites for the 3000-level accounting courses.

## Required

Complete 27 hours of accounting courses at the 3000-level or above, at least 15 hours of which are completed at UMSL. The accounting courses must include the six required courses listed below and three accounting electives. Courses previously completed can be waived upon presentation of appropriate documentation. Waived courses will not count toward the 15-hour residency requirement.

Courses must be completed with a grade of C- or higher. The grade point average for all courses counting toward the Post-Baccalaureate Certificate in Accounting must be 2.3 or higher. The prerequisite for enrollment in ACCTNG 3402, ACCTNG 3411, ACCTNG 3441, ACCTNG 3451 and all 4000-level accounting courses is an upper-level accounting grade point average of 2.3 or higher.

### Required Courses

ACCTNG 3401	Financial Accounting And Reporting I	3
ACCTNG 3402	Financial Accounting And Reporting II	3
ACCTNG 3411	Cost Accounting	3
ACCTNG 3421	Accounting Information Systems	3
ACCTNG 3441	Income Taxes	3
ACCTNG 4435	Auditing	3

### Electives

Select three of the following: <sup>1</sup>		9
ACCTNG 3451	Accounting For Governmental And Not-For-Profit Entities	
ACCTNG 4401	Financial Accounting And Reporting III	
ACCTNG 4402	Financial Accounting And Reporting IV	
ACCTNG 4405	Professional Accounting Research	
ACCTNG 4441	Advanced Federal Income Tax: Business Taxation	
Total Hours		27

<sup>1</sup> Most of these are offered only once a year.

## Notes on qualifying for the CPA exam in Missouri

Successful completion of the Post-Baccalaureate Certificate in Accounting includes all the accounting courses needed to qualify for the CPA exam in Missouri. However, Missouri law also requires a total of 60 credit hours in business (including the accounting courses). Many students with undergraduate degrees in business have satisfied this requirement. A student who has not satisfied this requirement must take additional business classes in order to qualify for the CPA exam.

In addition, Missouri requires 150 credit hours of college level coursework in order to qualify for the CPA exam. A student who has completed a 120-hour undergraduate business degree and the Post-Baccalaureate Certificate in Accounting will need additional coursework in order to satisfy the 150-hour requirement.

## Bachelor of Science in Business Administration Degree

### General Business

For those undecided regarding a specific emphasis area, a general business degree option is available. Students must complete a minimum of 18 hours of upper division approved business electives (see

comprehensive list of business courses in the course descriptions section of this publication)

## Emphasis in Finance

Finance is a multidisciplinary field that combines various concepts from management, economics and accounting with financial techniques to make sound business decisions and solve problems.

A minimum of 15 hours of upper division finance electives must be selected from the following:

FINANCE 3501	Financial Policies	3
(p. 252)		
FINANCE 3502	Treasury Management	3
(p. 252)		
FINANCE 3503	Computer Applications In Finance	3
(p. 252)		
FINANCE 3520	Investments	3
(p. 252)		
FINANCE 3521	Financial Engineering: Applying Derivatives	3
(p. 252)		
FINANCE 3525	Practicum In Investments	1
(p. 252)		
FINANCE 3540	Introduction to Financial Institutions and Financial Markets	3
(p. 252)		
FINANCE 3541	Commercial Bank Management	3
(p. 252)		
FINANCE 3542	Principles Of Real Estate	3
(p. 252)		
FINANCE 3560	Practice Of Personal Financial Planning	3
(p. 252)		
FINANCE 3561	Principles Of Insurance	3
(p. 252)		
FINANCE 3562	Life Insurance And Employee Benefits	3
(p. 252)		
FINANCE 3563	Retirement Planning And Employee Benefits	3
(p. 252)		
FINANCE 3564	Estate Planning And Trusts	3
(p. 252)		
FINANCE/INTL	International Corporate Finance	3
BUS 3580 (p. 252)		
FINANCE/INTL	International Investments	3
BUS 3582 (p. 252)		
FINANCE 3599	Independent Study In Finance (approved)	1-3
(p. 252)		

## Track Certification

Students may combine selected courses from the list above, and other specified upper division business electives, to fulfill a designated track with dual objectives of acquiring in depth knowledge, and to prepare and be eligible for various professional certification examinations. Detailed information is available in the Office of Undergraduate Academic Advising. The specific tracks available include:

- Corporate Finance
- Financial Institutions and Services



- Investment and Portfolio Management
- Financial Planning
- Insurance

## Emphasis in International Business

National markets are becoming increasingly integrated. The study of international business focuses on understanding the forces behind this globalization of markets and production.

Twelve (12) hours are required of all individuals seeking an emphasis in International Business:

Select two of the following courses:

6

FINANCE/  
INTL BUS  
3580 (p.  
252) International Corporate Finance

INTL BUS/  
MGMT 3680  
(p. 252) International Management

MKTG/INTL  
BUS 3780 (p.  
252) International Marketing

Select two additional approved international business courses from the following:<sup>1</sup>

6

INTL BUS 3280 The Law Of International Business Transactions  
(p. 252)

INTL BUS 3281 Business In China  
(p. 252)

INTL BUS 3282 Managing The Global Workforce  
(p. 252)

INTL BUS 3283 International Business And Society  
(p. 252)

INTL BUS 3284 The Japanese Management System  
(p. 252)

INTL BUS 3289 Practicum In International Business  
(p. 252)

INTL BUS 3290 Internship In International Business  
(p. 252)

INTL BUS 3299 Independent Study In International Business  
(p. 252)

INTL BUS/  
FINANCE  
3580 (p.  
252) International Corporate Finance

INTL BUS/  
FINANCE  
3582 (p.  
252) International Investments

INTL BUS/  
MGMT 3680  
(p. 252) International Management

INTL BUS/  
MKTG 3780  
(p. 252) International Marketing

INTL BUS/  
MKTG 3787  
(p. 252) Marketing in the European Union

INTL BUS 4281 Entrepreneurship in the Global Environment  
(p. 252)

INTL BUS 4289 International Strategic Management  
(p. 252)

INTL BUS/  
LOG OM 4381 International Logistics And Operations  
Management  
(p. 252)

MGMT 3685 Role Of The Global Corporation  
(p. 252)

Total Hours

12

<sup>1</sup> Other than INTL BUS 3289 (p. 252).

Proficiency in a foreign language of international commerce (determined by the College of Business Administration) must be demonstrated - 13 credit hours in one approved language or satisfactory performance on the UMSL foreign language placement test.

Students must complete one of the following International Experience Requirements:

INTL BUS 4280 International Business Experience  
(p. 252)

0

1. Study abroad for three or more credits hours.<sup>1</sup>
2. Complete an international internship approved by the International Business Institute (maximum of 3 credit hours).
3. Complete a minimum of one year international experience within 5 years of entering the program in any of the following areas: Peace Corps, volunteer work with an organization, an international posting by a company or government agency and/or approved, significant international experience. Documentation is required for approval.

<sup>1</sup> International students in the IB Emphasis will meet their International Experience requirement through their study in the United States.

## Emphasis in Logistics and Operations Management

This discipline has as its objective to get the appropriate goods or services to the right place, at the right time, in the right quality and quantity—thereby making the greatest contribution to the organization.

Students must complete a minimum of 12 credit hours selected from the following:

LOG OM 3399 (p. Independent Study In Logistics And Operations  
252) Management 1-3

LOG OM 4312 (p. Business Forecasting  
252) 3

LOG OM 4321 (p. Production and Operations Management  
252) 3

LOG OM 4322 (p. Lean Production In Manufacturing And Service  
252) Operations 3

LOG OM 4324 (p. Service Operations Management  
252) 3

LOG OM 4326 (p. Quality Assurance In Business  
252) 3

LOG OM 4330 (p. Business Logistics Systems  
252) 3

LOG OM 4350 (p. Management Science Methods 252)	3
LOG OM 4354 (p. Management Science Methods II 252)	3
LOG OM/INTL International Logistics And Operations BUS 4381 (p. Management 252)	3
INFSYS 3843 (p. Decision Support Systems for Business Intelligence 252)	3

At most, one of the following courses may be counted toward the LOM emphasis area:

INFSYS 3806 (p. Managerial Applications Of Object-Oriented Programming I 252)	3
INFSYS 3844 (p. Developing Business Applications In NET 252)	3

### Emphasis in Management

The study of management focuses on the behavior of individuals and groups in an organizational setting.

MGMT 3611 (p. Advanced Management And Organizational Behavior 252)	3
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Select five of the following: 15

MGMT 3612 Professional Skills Development (p. 252)	
MGMT 3621 Human Resource Management (p. 252)	
MGMT 3622 Industrial And Labor Relations (p. 252)	
MGMT 3623/ Industrial And Organizational Psychology PSYCH 3318 (p. 252)	
MGMT 3624 Employee Training And Development (p. 252)	
MGMT 3625 Leadership in Organization (p. 252)	
MGMT/INTL International Management BUS 3680 (p. 252)	
MGMT 3690 Internship In Management (p. 252) or MGMT 3699 Independent Study In Management (p. 252)	
MGMT 4614 Entrepreneurship/Small Business Management (p. 252)	
<b>Total Hours</b>	<b>18</b>

### Emphasis in Marketing

Marketing involves the activities needed to facilitate an exchange. This includes selling products, services, or ideas to both individual consumers and business buyers.

MKTG 3740 Marketing Analysis	3
MKTG 4700 Marketing Management	3
Select four additional upper division courses from the following:	12
MKTG 3710 Consumer Behavior	

MKTG 3720 Management Of Promotion	
MKTG 3721 Introduction to Digital Marketing Strategies	
MKTG 3750 Sales Management	
MKTG 3760 Business To Business Marketing	
MKTG 3770 Introduction To Transportation	
MKTG 3771 Traffic And Transportation Management	
MKTG/INTL International Marketing BUS 3780	
MKTG 3785 Women in International Entrepreneurship	
MKTG/INTL Marketing in the European Union BUS 3787	
MKTG 3790 Internship In Marketing	
MKTG 3798 Seminar in Marketing	
MKTG 3799 Independent Study In Marketing	
MEDIA ST 3338 Advertising Technique	

**Total Hours** 18

## Bachelor of Science in Information Systems Degree

### Mission

The Information Systems (IS) area endeavors to prepare high-potential students of diverse backgrounds for successful careers in the IS profession. Careers in IS may include programming, systems analysis and design, database administration, end-user support, network administration, and management consulting. The goal is to provide students with the skills to deal with the challenges confronting IS through teaching, research, and service to the profession.

Students are required to complete a minimum of 7 courses beyond required business core courses:

**Programming:** 6

INFSYS 3816 Managerial Application Of Object-Oriented Programming II (p. 252)	3
INFSYS 3806 Managerial Applications Of Object-Oriented Programming I (p. 252)	3

Analysis and Design:

INFSYS 3810 Information Systems Analysis (p. 252)	3
INFSYS 4850 Information Systems Design (p. 252)	3

Database: 3

INFSYS 3845 (p. Database Management Systems 252)	3
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Select 2 courses (at least 1 3800-level Information Systems course) from the following: 6

ACCTNG 3421 Accounting Information Systems (p. 252)	
FINANCE 3503 Computer Applications In Finance (p. 252)	
INFSYS 3807 Legacy Systems (p. 252)	
INFSYS 3815 Object Oriented Applications In Business (p. 252)	

INFSYS 3841	Enterprise Information Systems (p. 252)
INFSYS 3842	Management Of Telecommunications (p. 252)
INFSYS 3843	Decision Support Systems for Business Intelligence (p. 252)
INFSYS 3844	Developing Business Applications In NET (p. 252)
INFSYS 3846	E-Commerce (p. 252)
INFSYS 3847	Web Design (p. 252)
INFSYS 3848	Security And Information Systems (p. 252)
A pre-approved Computer Science class	
INFSYS 3898	Seminar in Information Systems Management <sup>1</sup> (p. 252)
INFSYS 3899	Independent Study In Information Systems <sup>1</sup> (p. 252)

<sup>1</sup> Seminars and Independent Studies are restricted to those offered by and approved by the Area faculty and approved by the Area Coordinator.

## Minors in Business Administration

### General Requirements

- All minors are 15 credit hours or 5 courses, including business core courses.
- Students must attain a 2.0 grade point average for all courses in the minor.
- Students must attain a minimum grade of C- in each course included in the minor.
- All courses in the minor must be on a graded basis.
- A minimum of 9 credit hours of coursework included in the minor must be taken in residence at UMSL.
- One must complete a baccalaureate degree at UMSL in order for a minor to be conferred.
- A minor may be added for up to two years following completion of the baccalaureate degree

### Minor in General Business

This minor is available only to students seeking a baccalaureate degree outside the College of Business Administration.

Select five of the following:	15
INFSYS 1800	Computers And Information Systems (p. 252)
ACCTNG 2400	Fundamentals Of Financial Accounting (p. 252)
BUS AD 2900	Legal Environment Of Business (p. 252)
LOG OM 3320	Introduction To Operations Management (p. 252)
FINANCE 3500	Financial Management (p. 252)

MGMT 3600	Management And Organizational Behavior (p. 252)	
MKTG 3700	Basic Marketing (p. 252)	
Total Hours		15

### Minor in Accounting

Available to all students except those pursuing the Bachelor of Science in Accounting degree. Students must complete:

ACCTNG 2400	Fundamentals Of Financial Accounting (p. 252)	3
ACCTNG 2410	Managerial Accounting (p. 252)	3
Plus any three upper division accounting electives		9
Total Hours		15

### Minor in Finance

Available to all students except those pursuing the Bachelor of Science in Business Administration degree. Students must complete:

FINANCE 3500	Financial Management (p. 252)	3
Select any four upper division finance electives		12
Total Hours		15

### Minor in Information Systems

Available to all students except those pursuing the Bachelor of Science in Information Systems degree. Students must complete:

INFSYS 2800 (p. 252)	Information Systems Concepts And Applications (p. 252)	3
Select four of the following:		12
At least three of the courses must be 3800-level IS courses.		
INFSYS 3806	Managerial Applications Of Object-Oriented Programming I (p. 252)	
INFSYS 3807	Legacy Systems (p. 252)	
INFSYS 3810	Information Systems Analysis (p. 252)	
INFSYS 3815	Object Oriented Applications In Business (p. 252)	
INFSYS 3816	Managerial Application Of Object-Oriented Programming II (p. 252)	
INFSYS 3841	Enterprise Information Systems (p. 252)	
INFSYS 3842	Management Of Telecommunications (p. 252)	
INFSYS 3843	Decision Support Systems for Business Intelligence (p. 252)	
INFSYS 3844	Developing Business Applications In NET (p. 252)	
INFSYS 3845	Database Management Systems (p. 252)	
INFSYS 3846	E-Commerce (p. 252)	

INFSYS 3847 Web Design (p. 252)	
INFSYS 4850 Information Systems Design (p. 252)	
INFSYS 3899 Independent Study In Information Systems <sup>1</sup> (p. 252)	
<b>Total Hours</b>	<b>15</b>

<sup>1</sup> Seminars and Independent Studies are restricted to those offered by and approved by the Area faculty and approved by the Area Coordinator.

### Minor in International Business

Available to all students except those pursuing the Bachelor of Science in Business Administration degree with an emphasis in International Business. Students must complete any 5 courses in International Business.

### Minor in Logistics and Operations Management

Available to all students except those pursuing the Bachelor of Science in Business Administration degree. Students must complete:

LOG OM 3320 Introduction To Operations Management	3
Select any four upper division logistics/operations management electives, including no more than one programming course selected from the following:	12
INFSYS 3806 Managerial Applications Of Object-Oriented Programming I	
or INFSYS 3844 Developing Business Applications In NET	
<b>Total Hours</b>	<b>15</b>

### Minor in Management

Available to all students except those pursuing the Bachelor of Science in Business Administration degree. Students must complete:

MGMT 3600 (p. Management And Organizational Behavior 252)	3
MGMT 3611 (p. Advanced Management And Organizational Behavior 252)	3
Select any three upper division management and organizational behavior electives.	9
<b>Total Hours</b>	<b>15</b>

### Minor in Marketing

Available to all students except those pursuing the Bachelor of Science in Business Administration degree. Students must complete:

MKTG 3700 (p. Basic Marketing 252)	3
Select any four additional upper division marketing electives.	12

### Minor in Transportation Studies

Available to all students. (For those pursuing the BSBA degree, this will result in an emphasis in marketing if the marketing capstone course, MKTG 4700 (p. 252) is taken in addition to the requirements listed

below. Such individuals will have completed both LOG OM 3320 (p. 252) and MKTG 3700 (p. 252).)

MKTG 3770 (p. Introduction To Transportation 252)	3
MKTG 3771 (p. Traffic And Transportation Management 252)	3
Select three of the following:	9
LOG OM 3320 Introduction To Operations Management (p. 252)	
MKTG 3790 Internship In Marketing (p. 252)	
MKTG 3799 Independent Study In Marketing <sup>1</sup> (p. 252)	
MKTG 3700 Basic Marketing (p. 252)	
MKTG 3798 Seminar in Marketing (p. 252)	
<b>Total Hours</b>	<b>15</b>

<sup>1</sup> No more than one approved independent study course may count towards the minor.

### Sample Four Year Plans

Accounting BS (p. 258)

Business Administration BS

- General (p. 259)
- Finance Emphasis (p. 259)
- International Business Emphasis (p. )
- Logistics and Operations Management Emphasis (p. 260)
- Management Emphasis (p. 260)
- Marketing Emphasis (p. 261)

Information Systems BS (p. 261)

### Accounting BS

First Year		
Fall	Hours Spring	Hours
MATH 1030	3 MATH 1100	3
ENGL 1100	3 ECON 1001	3
BUS AD 1000	3 INFSYS 2800	3
General Education	6 General Education	6
	<b>15</b>	<b>15</b>

Second Year		
Fall	Hours Spring	Hours
MATH 1105	3 ACCTNG 2410	3
COMM 1030 or 1040	3 BUS AD 2900	3
ACCTNG 2400	3 LOG OM 3300	3
ECON 1002	3 PHIL 1130 or 2254	3
General Education	3 General Education	3
	<b>15</b>	<b>15</b>

Third Year		
Fall	Hours Spring	Hours
ACCTNG 3401	3 ACCTNG 3402	3
LOG OM 3320	3 FINANCE 3500	3



ENGL 3120	3	MGMT 3600	3
General Education	3	MKTG 3700	3
Elective or minor	3	General Education	3
	15		15
<b>Fourth Year</b>			
<b>Fall</b>		<b>Hours Spring</b>	
ACCTNG 3421	3	MGMT 4219 & MGMT 4220	3
ACCTNG 3441	3	ACCTNG 3411	3
Global Awareness Course	3	Junior/Senior Level Business Elective	3
Elective or minor	6	Global Awareness Course	3
		Elective or minor	3
	15		15

Total Hours: 120

*PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor. All requirements are subject to change.*

## Business Administration BS, General

<b>First Year</b>			
<b>Fall</b>		<b>Hours Spring</b>	
MATH 1030	3	MATH 1100	3
ENGL 1100	3	ECON 1001	3
BUS AD 1000	3	INFSYS 2800	3
General Education	6	General Education	6
	15		15
<b>Second Year</b>			
<b>Fall</b>		<b>Hours Spring</b>	
MATH 1105	3	ACCTNG 2400	3
ACCTNG 2400	3	BUS AD 2900	3
ECON 1002	3	LOG OM 3300	3
General Education	6	General Education	6
	15		15
<b>Third Year</b>			
<b>Fall</b>		<b>Hours Spring</b>	
LOG OM 3320	3	FINANCE 3500	3
MGMT 3600	3	MKTG 3700	3
ENGL 3120	3	Junior/Senior Level Business Elective	3
General Education	3	Global Awareness Course	3
Elective or minor	3	General Education	3
	15		15
<b>Fourth Year</b>			
<b>Fall</b>		<b>Hours Spring</b>	
Junior/Senior Level Business Elective	6	MGMT 4219 & MGMT 4220	3

Global Awareness Course	3	Junior/Senior Level Business Elective	9
Elective or minor	6	Elective or minor	3
	15		15

Total Hours: 120

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## Business Administration BS, Finance Emphasis

<b>First Year</b>			
<b>Fall</b>		<b>Hours Spring</b>	
MATH 1030	3	MATH 1100	3
ENGL 1100	3	ECON 1001	3
BUS AD 1000	3	INFSYS 2800	3
General Education	6	General Education	6
	15		15
<b>Second Year</b>			
<b>Fall</b>		<b>Hours Spring</b>	
MATH 1105	3	ACCTNG 2410	3
ECON 1002	3	BUS AD 2900	3
ACCTNG 2400	3	LOG OM 3300	3
General Education	6	General Education	6
	15		15
<b>Third Year</b>			
<b>Fall</b>		<b>Hours Spring</b>	
LOG OM 3320	3	MGMT 3600	3
FINANCE 3500	3	MKTG 3700	3
ENGL 3120	3	Finance Elective	3
General Education	3	Global Awareness Course	3
Elective or minor	3	General Education	3
	15		15
<b>Fourth Year</b>			
<b>Fall</b>		<b>Hours Spring</b>	
Finance Elective	6	MGMT 4219 & MGMT 4220	3
Junior/Senior Business Elective	3	Finance Elective	6
Elective or minor	6	Global Awareness Course	3
		Elective or minor	3
	15		15

Total Hours: 120

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encouraged to meet with their advisor. All requirements are subject to change.

## Business Administration BS, International Business Emphasis

First Year		
Fall	Hours Spring	Hours
MATH 1030	3 ECON 1001	3
ENGL 1100	3 General Education	6
General Education	6 MATH 1100	3
BUS AD 1000	3 INFSYS 2800	3
	<b>15</b>	<b>15</b>
Second Year		
Fall	Hours Spring	Hours
ACCTNG 2400	3 ACCTNG 2410	3
ECON 1002	3 BUS AD 2900	3
Foreign Language 1001	5 LOG OM 3300	3
MATH 1105	3 Foreign Language 1002	5
General Education	3 General Education	3
	<b>17</b>	<b>17</b>
Third Year		
Fall	Hours Spring	Hours
LOG OM 3320	3 FINANCE 3500	3
MGMT 3600	3 ENGL 3120	3
MKTG 3700	3 INTL BUS Group 1 Elective	3
Foreign Language 2101	3 INTL BUS Group 2 Elective	3
General Education	3 General Education	3
	<b>15</b>	<b>15</b>
Fourth Year		
Fall	Hours Spring	Hours
INTL BUS 4280	0 MGMT 4219 & MGMT 4220	3
INTL BUS Group 1 Elective	3 Junior/Senior Business elective	6
INTL BUS Group 2 Elective	3 Elective or minor	2
General Education	6	
Elective or minor	3	
	<b>15</b>	<b>11</b>
Total Hours: 120		

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## Business Administration BS, Logistics and Operations Management Emphasis

First Year		
Fall	Hours Spring	Hours
MATH 1030	3 MATH 1100	3
ENGL 1100	3 ECON 1001	3
BUS AD 1000	3 INFSYS 2800	3
General Education	6 General Education	6
	<b>15</b>	<b>15</b>
Second Year		
Fall	Hours Spring	Hours
MATH 1105	3 ACCTNG 2410	3
ACCTNG 2400	3 BUS AD 2900	3
ECON 1002	3 LOG OM 3300	3
General Education	6 General Education	6
	<b>15</b>	<b>15</b>
Third Year		
Fall	Hours Spring	Hours
LOG OM 3320	3 FINANCE 3500	3
MGMT 3600	3 MKTG 3700	3
ENGL 3120	3 LOG OM Elective	3
General Education	3 Global Awareness Course	3
Elective or minor	3 General Education	3
	<b>15</b>	<b>15</b>
Fourth Year		
Fall	Hours Spring	Hours
LOG OM Elective	6 MGMT 4219 & MGMT 4220	3
Global Awareness Course	3 LOG OM Elective	3
Elective or minor	6 Junior/Senior Level Business Elective	6
	Elective or minor	3
	<b>15</b>	<b>15</b>
Total Hours: 120		

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## Business Administration BS, Management Emphasis

First Year		
Fall	Hours Spring	Hours
MATH 1030	3 MATH 1100	3
ENGL 1100	3 ECON 1001	3
BUS AD 1000	3 INFSYS 2800	3
General Education	6 General Education	6
	<b>15</b>	<b>15</b>

**Second Year**

Fall	Hours Spring	Hours
MATH 1105	3 ACCTNG 2410	3
ACCTNG 2400	3 BUS AD 2900	3
ECON 1002	3 LOG OM 3300	3
General Education	6 General Education	6
	<b>15</b>	<b>15</b>

**Third Year**

Fall	Hours Spring	Hours
LOG OM 3320	3 FINANCE 3500	3
MGMT 3600	3 MKTG 3700	3
ENGL 3120	3 MGMT 3611	3
General Education	3 MGMT Elective	3
Elective or minor	3 General Education	3
	<b>15</b>	<b>15</b>

**Fourth Year**

Fall	Hours Spring	Hours
MGMT Elective	6 MGMT 4219 & MGMT 4220	3
Global Awareness Course	3 MGMT Elective	6
Elective or minor	6 Global Awareness Elective or minor	3
	<b>15</b>	<b>15</b>

Total Hours: 120

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## Business Administration BS, Marketing Emphasis

**First Year**

Fall	Hours Spring	Hours
MATH 1030	3 MATH 1100	3
ENGL 1100	3 ECON 1001	3
BUS AD 1000	3 INFSYS 2800	3
General Education	6 General Education	6
	<b>15</b>	<b>15</b>

**Second Year**

Fall	Hours Spring	Hours
MATH 1105	3 ACCTNG 2410	3
ACCTNG 2400	3 BUS AD 2900	3
ECON 1002	3 LOG OM 3300	3
General Education	6 General Education	6
	<b>15</b>	<b>15</b>

**Third Year**

Fall	Hours Spring	Hours
LOG OM 3320	3 FINANCE 3500	3
MKTG 3700	3 MGMT 3600	3
ENGL 3120	3 MKTG Elective	3

General Education	3 Global Awareness Course	3
Elective or minor	3 General Education	3
	<b>15</b>	<b>15</b>

**Fourth Year**

Fall	Hours Spring	Hours
MKTG Elective	6 MGMT 4219 & MGMT 4220	3
Global Awareness Course	3 MKTG 4700	3
Elective or minor	6 MKTG Elective	3
	Junior/Senior Level Business Elective	3
	Elective or minor	3
	<b>15</b>	<b>15</b>

Total Hours: 120

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## Information Systems BS

**First Year**

Fall	Hours Spring	Hours
MATH 1030	3 MATH 1100	3
ENGL 1100	3 ECON 1001	3
BUS AD 1000	3 INFSYS 2800	3
General Education	6 General Education	6
	<b>15</b>	<b>15</b>

**Second Year**

Fall	Hours Spring	Hours
MATH 1105	3 FINANCE 3500	3
ACCTNG 2400	3 MKTG 3700	3
ECON 1002	3 INFSYS 3816	3
INFSYS 3806	3 General Education	6
General Education	3	
	<b>15</b>	<b>15</b>

**Third Year**

Fall	Hours Spring	Hours
LOG OM 3320	3 FINANCE 3500	3
MGMT 3600	3 MKTG 3700	3
ENGL 3120	3 INFSYS 3845	3
INFSYS 3810	3 General Education	6
General Education	3	
	<b>15</b>	<b>15</b>

**Fourth Year**

Fall	Hours Spring	Hours
INFSYS 4850	3 MGMT 4219 & MGMT 4220	3
INFSYS Elective	3 INFSYS Elective	3

General Education	6 Global Awareness Course	3
Elective or minor	3 Elective or minor	6
	<b>15</b>	<b>15</b>

Total Hours: 120

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## Accounting Courses

### **ACCTNG 2400 Fundamentals Of Financial Accounting: 3 semester hours**

Prerequisites: MATH 1030 and completion of 27 credit hours. MATH 1030 may be taken concurrently. This is a one semester course in financial accounting theory and practice. The primary emphasis is on the corporate financial statements of income, financial position and cash flow-their content and interpretation; and the impact of financial transactions upon them.

### **ACCTNG 2410 Managerial Accounting: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 2400. This is an advanced course that goes beyond the scope of a second-semester course in fundamentals of accounting. The development, interpretation, and use of relevant cost behavior, control, and traceability concepts for management planning, controlling and decision making are emphasized. Topics include: an introduction to product costing, the contribution concept, direct costing, performance standards and variance analysis, responsibility accounting, segment profitability, alternative choice decisions, and capital budgeting.

### **ACCTNG 3401 Financial Accounting And Reporting I: 3 semester hours**

Prerequisites: A minimum 2.0 campus GPA, MATH 1030, ACCTNG 2410, and 57 credit hours Review of the foundations of financial accounting theory and of the financial statement preparation process. Accounting theory and practice related to current assets (except for investments in securities). The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

### **ACCTNG 3402 Financial Accounting And Reporting II: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as investments in securities, operational assets, current and long-term liabilities, and leases. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

### **ACCTNG 3411 Cost Accounting: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. The study of the basic principles of cost determination for, and control of, manufacturing and distribution activities. Topics include job-order costing, process costing, cost allocations, and the development and use of standard costs within a system of absorption costing.

### **ACCTNG 3421 Accounting Information Systems: 3 semester hours**

Prerequisites: Minimum campus GPA of 2.0. In addition, MATH 1030, INFSYS 1800, ACCTNG 2410, and ACCTNG 3401. Examines the fundamentals of accounting information systems, including hardware and software considerations, internal controls, and transaction processing cycles. Also focuses upon the development of efficient spreadsheets as applied to financial and managerial accounting concepts.

### **ACCTNG 3441 Income Taxes: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Fundamentals of Federal income taxation. Topics include taxable entities, income, deductions, tax accounting methods, tax basis, and property transactions at both the conceptual and operational levels.

### **ACCTNG 3445 I.R.S. Procedures and Federal Taxation of Estates, Gifts and Trusts: 3 semester hours**

Prerequisites: MATH 1030 and either ACCTNG 3401 or FINANCE 3560; also a minimum campus GPA of 2.2 in all Accounting courses at the 3000-level and above taken at UM-St. Louis. The first topic includes the federal taxation of estates, gifts and trusts as they relate to wealth management. The second topic concerns interaction with the federal tax authorities. Topics may include preparing an audit protest, a request for an I.R.S. ruling, and a petition to the U.S. Tax Court.

### **ACCTNG 3451 Accounting For Governmental And Not-For-Profit Entities: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; also MATH 1030 and ACCTNG 3402. Principles of fund accounting and financial reporting for governmental and nonprofit entities. This course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

### **ACCTNG 3460 Accounting Career Strategies: 3 semester hours**

Prerequisites: ACCTNG 3401; minimum campus GPA of 2.0 and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This is a course in career and professional development. The primary emphasis is developing and executing a career strategy, enhancing business and client communication skills, and preparing for the transition to the accounting profession.

### **ACCTNG 3490 Internship In Accounting: 1-3 semester hours**

Prerequisites: ACCTNG 3401, a minimum campus GPA of 2.0, a minimum GPA of 2.7 in all accounting courses at the 3000-level and above taken at UM-St. Louis, consent of supervising instructor and accounting internship coordinator. Students are employed in the field of Accounting where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. An accounting faculty member will monitor the student's program with the student providing a formal written report at the end of the project.

### **ACCTNG 3495 Special Administration Problems - Accounting (VITA) Program: 1-3 semester hours**

Prerequisites: ACCTNG 2400, ACCTNG 2410 and ACCTNG 3401; minimum campus GPA of 2.0, minimum GPA of 2.2 in all accounting courses at the 2000-level and above taken at UMSL; completion of nine semester hours of accounting. Enrollment in the course is restricted to volunteer Income Tax Assistance (VITA) program student participants. The class offers practical tax experience, networking opportunities, potential managerial experience, and personal satisfaction derived from community service. It is taken on a satisfactory/unsatisfactory basis. The course offers one to three hours of undergraduate business elective credit and may be repeated for up to 3 hours credit.



**ACCTNG 3498 Seminar in Accounting: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum campus GPA of 2.0 and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This course is a selected special topic in the field of accounting. May be repeated for credit with different topics.

**ACCTNG 3499 Independent Study In Accounting: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0, a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL and approval by the supervising professor and the department chair. Special individual study in accounting under the supervision of a full-time accounting faculty member.

**ACCTNG 4401 Financial Accounting And Reporting III: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3402; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as income taxes, pensions, owners' equity, earnings per share, and the statement of cash flows. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 4402 Financial Accounting And Reporting IV: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3402; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as business combinations, consolidated financial statements, multinational operations, foreign exchange transactions, and governmental and nonprofit organizations. The course includes an emphasis on unstructured problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 4405 Professional Accounting Research: 3 semester hours**

Prerequisites: ACCTNG 4401; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Discussion of the research tools and methods available to resolve questions concerning accounting standards and practices. Critical analysis of topics of current interest and importance in accounting practice is the focal point of the course.

**ACCTNG 4435 Auditing: 3 semester hours**

Prerequisites: MATH 1105; ACCTNG 3402; ACCTNG 3421 or INFSYS 3810; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. An introduction to auditing practice. Includes the social role of auditing and the services offered by auditors in internal, governmental, and public accounting practice. Emphasis is on the financial auditing process, including professional ethics, audit risk assessment, study and evaluation of internal control, gathering and evaluating audit evidence, and audit reporting decisions.

**ACCTNG 4441 Advanced Federal Income Tax: Business Taxation: 3 semester hours**

Prerequisites: ACCTNG 3441 with a grade of B- or above; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Focuses on federal income taxation of corporations, S corporations, partnerships, LLCs and their owners.

**ACCTNG 5400 Financial And Managerial Accounting: 3 semester hours**

This course provides an introduction to accounting, with emphasis on preparation of financial statements for external parties (financial accounting) and accumulation of cost information to aid internal planning and control (managerial accounting). Topics covered include measurement of assets and liabilities, revenues and expenses, the accounting cycle, financial statements, cost terminology, cost behavior, product costing, and relevant costs for decision making. This course provides the necessary background for ACCTNG 5401.

**ACCTNG 5401 Financial Reporting And Analysis: 3 semester hours**

Prerequisites: ACCTNG 5400 or the equivalent. This course builds on the foundations covered in ACCTNG 5400, emphasizing in-depth analysis of published financial statements. The course begins with discussion of the role of financial accounting information in capital markets and contracting, and continues with examination of a number of specific accounting issues. Students are encouraged to look behind the numbers to better understand the economics of the underlying transactions, and properly interpret what the reported numbers mean about a firm's future prospects.

**ACCTNG 5402 Professional Accounting Research: 3 semester hours**

Prerequisites: ACCTNG 4401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Discussion of the research tools and methods available to resolve questions concerning accounting standards and practices. Critical analysis of topics of current interest and importance in accounting practice.

**ACCTNG 5403 Graduate Topics in Financial Accounting: 3 semester hours**

Prerequisites: ACCTNG 4401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of current financial reporting issues. Analysis of current problems and approaches pertaining to the communication of corporate financial information to the U.S. and international investment communities.

**ACCTNG 5404 Professional Accountancy I: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 2410; a minimum 2.0 campus GPA; graduate standing. This is the first professional-level course in financial reporting. The course includes a study of the conceptual framework underlying Generally Accepted Accounting Principles (GAAP) and issues pertaining to accounting for current assets and liabilities.

**ACCTNG 5405 Professional Accountancy II: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; graduate standing. This is the second professional-level course in financial reporting. The course includes an in-depth study of issues pertaining to accounting for operational assets, liabilities and owners equity.

**ACCTNG 5406 Research and Professional Writing in Accounting: 3 semester hours**

Prerequisites: Completion of ACCTNG 4401 and enrollment in Master of Accounting Program.. This course employs the professional accounting literature and authoritative databases to analyze contemporary issues in accounting. Students will refine their communication skills in preparation for leadership roles in the accounting profession.

**ACCTNG 5408 Fraud Examination: 3 semester hours**

Prerequisites: ACCTNG 3402 or ACCTNG 5405; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This course is designed for graduate students who are interested in fraud and its effects. Students will be introduced to theoretical concepts of fraud and practical responses to it. Course coverage includes an overview of the fraud problem; prevention and detection of fraud; elements of fraud investigation, interview techniques, fraud types, and laws governing the prosecution of fraud cases.

**ACCTNG 5411 Cost Systems Analysis: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; graduate standing. The development, interpretation, and use of accounting reports and supplementary information for management planning, control and decision making. Emphasizes the application of relevant cost behavior, control and traceability concepts in the preparation of internal accounting reports, with a secondary emphasis upon product costing techniques as appropriate to financial accounting needs. Topics include break-even analysis, operational budgeting, direct costing, absorption costing, standard costs and variance analysis, business segment analysis, responsibility accounting distribution cost accounting, and gross profit analysis.

**ACCTNG 5412 Graduate Topics in Management: Accounting Controllorship: 3 semester hours**

Prerequisite: ACCTNG 3411 or ACCTNG 5411; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of advanced managerial accounting techniques useful in facilitating the planning and control process in the modern organization. Emphasis on the implementation and administration of these techniques, their integration with management information systems, and the organizational role of the corporate accountant.

**ACCTNG 5421 Information Systems in Accounting: 3 semester hours**

Prerequisites: MATH 1030; INFSYS 1800; ACCTNG 2410; ACCTNG 3401; a minimum campus GPA of 2.0; graduate standing. This is a professional-level course in accounting information systems. The course includes examination of transaction cycles, structured analysis and design of accounting information systems, and internal controls.

**ACCTNG 5435 Graduate Topics in Auditing: 3 semester hours**

Prerequisite: ACCTNG 4435; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of advanced auditing and attestation issues, with an emphasis on operational auditing. Topics include professional ethics, risk analysis, internal control, fraud detection, analytical procedures, determining and assessing operational objectives, and reporting and implementing audit findings.

**ACCTNG 5436 Systems Auditing: 3 semester hours**

Prerequisite: ACCTNG 5400, INFSYS 6800 or consent of instructor. Study of techniques involved in the control and audit of computer-based systems. Emphasis on the review of internal controls at operational and administrative levels and on computer-assisted audit techniques.

**ACCTNG 5441 Tax Research: 3 semester hours**

Prerequisite: Acctng 3441; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; or consent of instructor. Application of the research tools and methods available to resolve questions pertaining to the tax laws. Addresses techniques for locating and evaluating relevant authority. Students will be expected to complete written tax research memos. A basic understanding of federal income tax law is presumed.

**ACCTNG 5446 Advanced Topics in Taxation: 3 semester hours**

Prerequisites: ACCTNG 3441. Address advanced topics in taxation selected by the instructor.

**ACCTNG 5447 Taxation of Individuals and Businesses: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401 or both ACCTNG 5400 and FIN 6590 with the topic "Practice of Personal Financial Planning" with grades of B or better in both; graduate standing. This is the first professional-level course in taxation. The course includes a general introduction to the concepts of taxation. It will enable students to understand the role of taxes in evaluating decisions typically confronted by individual taxpayers and businesses.

**ACCTNG 5451 Accounting and Auditing in Governmental and Not-for-Profit Entities: 3 semester hours**

Prerequisite: ACCTNG 3402 and graduate standing; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of accounting for use in the public sector and in not-for-profit organizations. Principles of fund accounting and financial reporting for governmental and not-for-profit entities, as well as auditing in the public sector.

**ACCTNG 5480 International Accounting: 3 semester hours**

Same as INTL BUS 5480. Prerequisites: ACCTNG 3402. Accounting practices for multinational businesses. Discussion of comparative financial accounting practices, the development of international accounting standards, and managerial accounting practices related to multinational operations.

**ACCTNG 5490 Graduate Internship in Accounting: 1-3 semester hours**

Prerequisites: ACCTNG 3401 or ACCTNG 5404; a minimum graduate GPA of 3.0; a minimum GPA of 3.0 in all accounting courses at the 3000-level and above taken at UMSL; consent of supervising instructor and accounting internship coordinator. The student works in an accounting internship that contains sufficient content and rigor to merit graduate credit. The student's program will be monitored by a member of the Graduate Faculty in Accounting. The course requires several meetings with the faculty advisor and a graduate-level written assignment. The course will be graded on a Satisfactory/Unsatisfactory basis. A student who has previously taken ACCTNG 3490 may not take ACCTNG 5490.

**ACCTNG 5491 Contemporary Issues In Accountancy: 3 semester hours**

Prerequisites: ACCTNG 5405 or ACCTNG 3402. This course includes an analysis of contemporary developments in the practice of accountancy or theories underlying it. This course may address topics in accountancy in any area of specialization (financial, cost/managerial, tax, auditing, governmental/NFP) or may examine topics that affect the profession as a whole. Topics will vary. May be repeated for credit when topics are different.

**ACCTNG 5498 Graduate Seminar in Accounting: 3 semester hours**

Prerequisites: To be determined each time the course is offered and to include a minimum 2.0 overall GPA and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Study of selected special problems in accounting. May be repeated for credit with different topics.

**ACCTNG 5499 Individual Research in Accounting: 1-3 semester hours**

Prerequisites: Consent of instructor, department chair and graduate director; a minimum 3.0 graduate GPA; a minimum GPA of 3.0 in all accounting courses at the 3000-level and above taken at UMSL. Special individual research topics in Accounting under the guidance of a specific professor.

**ACCTNG 6441 Graduate Topics in Taxation: 3 semester hours**

Prerequisite: At least a B in ACCTNG 3441 or ACCTNG 5447; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Addresses tax policy topics drawing on literature from accounting, economics, and public finance. Other topics of current interest will be selected by the instructor.

**Business Administration Courses****BUS AD 1000 Introduction to Business: 3 semester hours**

Overview of the functional business disciplines, including, but not limited to principles of Accounting, Finance, Information Systems, Law, Logistics and Operations Management, Management, and Marketing.

**BUS AD 1900 Introduction to Personal Law: 3 semester hours**

This course introduces students to the American legal system and the basic issues every individual must deal with in our society. The course will be of interest to anyone seeking a job, leasing an apartment, buying a car or house, borrowing money, buying insurance, getting married or divorced, entering contracts, filing a law suit, writing a will, or accumulating wealth. May not be used for credit in any undergraduate business program.

**BUS AD 2000 Topics In Business Administration: 1-3 semester hours**

Prerequisites: Vary with topic; contact the School of Business Administration. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**BUS AD 2900 Legal Environment Of Business: 3 semester hours**

Prerequisites: Sophomore Standing. An introduction to the nature and meaning of law, sources of law, legal process and institutions. The legal environment of business is defined as: the attitude of the government toward business, the historical development of this attitude; current trends of public control in taxation, regulation of commerce and competition; freedom of contract, antitrust legislation and its relationship to marketing, mergers and acquisitions; and labor management relations.

**BUS AD 3090 Internship In Business Administration: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 hours of Business Administration electives and have consent of supervising instructor and Associate Dean. College of Business GPA of at least 2.5 is also required. Students are employed in the field of Business Administration where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. A Business Administration faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BUS AD 3090 may not be counted toward the minimum credit hours for any emphasis area.

**BUS AD 3099 Independent Study In Business Administration: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Associate Dean. Special individual study in business under the supervision of a full-time faculty member.

**BUS AD 3900 Business Law: Contracts, Sales, Secured Transactions, Bankruptcy: 3 semester hours**

Prerequisite: BUS AD 2900, or consent of instructor. Introduction to the laws of contracts, sales, secured transactions, bankruptcy, and other selected topics.

**BUS AD 3990 Internship In Business Law: 1-3 semester hours**

Prerequisites: BUS AD 2900, 3 credit hours of Business Law electives, and a Business College 2.5 GPA. Must have completed and/or be currently enrolled in at least 3 credit hour of Business Law electives and have consent of supervising instructor and Area Coordinator. Students are employed in the field of Business Law where the knowledge and skills learned in the classroom are applied. Professional development and obtaining specialized work experience are primary goals. A Business Law faculty member will monitor the student's program with the student providing a formal written report at the end of the project.

**BUS AD 3999 Independent Study In Legal Studies: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in legal studies under the supervision of a full-time legal studies faculty member.

**BUS AD 4198 Business Administration Senior Seminar: 1-10 semester hours**

Prerequisites: To be determined each time the course is offered and to include minimum 2.0 campus GPA. An intensive study of a specific area of business administration, of some specific business or economic phenomenon, or a specific problem or theory. Several different courses may be offered under this course number. May be repeated for credit as long as the topic differs.

**BUS AD 5000 Economics For Managers: 3 semester hours**

Prerequisites: none The first portion of this course introduces microeconomic analysis of consumers, firms, and government. The concepts and tools of economic analysis are applied to the production and distribution functions of organizations. The last portion is devoted to the macroeconomic influence of capital markets, the influence of interest rates, inflation, and the business cycle.

**BUS AD 5001 Managerial Economic Analysis: 3 semester hours**

Prerequisites: BUS AD 5000 or ECON 1001 and ECON 1002. Microeconomic analysis of consumers, firms, and government. The concepts and mathematical tools of economic analysis are applied to the production and distribution functions of organizations.

**BUS AD 5002 Analysis Of National Economic Environment: 3 semester hours**

Prerequisites: BUS AD 5000 or ECON 1001 and ECON 1002. The character and functioning of the national economic system; analyzing and forecasting fluctuations in national income and product, employment, and prices; the influence of monetary and fiscal policies. Emphasis is on the acquisition of knowledge concerning forces affecting all business firms.

**BUS AD 5100 Managerial Communication: 3 semester hours**

An analysis of business writing and speaking, and the communication conventions common in organizations. Emphasis is placed on developing skills critical to career advancement and necessary for effective organizational functioning. A second goal is to prepare students for assignments in other business courses. This course must be taken within the first 12 credit hours of study, preferably in the student's first semester.



**BUS AD 5198 Seminar In Business Administration: 3 semester hours**

An intensive study of a specific area of business administration of some specific business or economic phenomenon, or a specific problem or theory. Several different courses may be offered under this course number.

**BUS AD 5299 Individual Research: 1-3 semester hours**

Prerequisite: Consent of instructor and graduate director. Special individual research topics under the guidance of a specific professor.

**BUS AD 5450 Governmental Budgeting And Financial Control: 3 semester hours**

Prerequisite: ACCTNG 5400. A study of municipal and federal financial control and budgeting procedures with emphasis on public policy. The impact of financial control on top management decisions and the effect of budget strategies on the allocations of public funds.

**BUS AD 5900 Law, Ethics And Business: 3 semester hours**

Analysis of the relationship between law and business with emphasis on the ability of, and extent to which, governments regulate business activities. Topics covered include the employer-employee relationship, protection of consumers, antitrust regulation, and securities law. Also discussed are ethical issues confronting management of the modern business enterprises.

**BUS AD 6990 Strategy Formulation And Implementation: 3 semester hours**

Prerequisites: FINANCE 6500, MGMT 5600, MKTG 5700, LOG OM 5320 and special consent. Graduate program capstone course examining concepts and methods that integrate functional areas of business. The perspective is that of general management charged with directing the total enterprise. Interactions between the environment, organization, strategy, policies and the implementation of plans are explored. Special emphasis is given to globalization of business and ethical perspectives. This course should be taken during the semester prior to graduation. In no case may it be taken sooner than two semesters prior to graduation.

**BUS AD 7001 Doctoral Research: 1-12 semester hours**

Prerequisites: Must have Ph.D. Program Director or Area Coordinator approval Investigation of an advanced nature culminating in preparation for comprehensive examinations and/or development of dissertation proposal. The course may be repeated for credit.

**BUS AD 7002 Dissertation Research: 1-12 semester hours**

Prerequisites: Must have Ph.D. Program Director or Area Coordinator approval. Investigation of an advanced nature culminating preparation of a doctoral dissertation. The course may be repeated.

**BUS AD 7021 Qualitative Methods And Philosophical Foundations Of BA Research: 3 semester hours**

Prerequisites: Admittance into the Ph.D. Program This course investigates the ontology and epistemology of business administration research, particularly as they pertain to qualitative research methods, such as case studies, action research, and ethnomethodology.

**BUS AD 7300 Statistical Modeling: 3 semester hours**

Prerequisites: LOG OM 5300; Admittance into the Ph.D. Program. Study of multivariate analytical techniques and their application to the analysis of business systems. Topics include the construction and adaptation of statistical models and extrapolative techniques to accommodate factor interactions, nonlinearities, and periodic effects. Methodologies include multiple regression, ANOVA, and general linear model, MANOVA, structural equation modeling, and time series modeling.

## Finance Courses

**FINANCE 1590 Personal Finance For Nonbusiness Majors: 3 semester hours**

For future professionals who want to learn more about personal finance and how to better manage their resources. The topics include purchasing/leasing cars, home acquisitions, investing in stocks and bonds, mutual funds, retirement planning and health and life insurance. Special emphasis will be on the nontechnical aspects of these issues. Cannot be used for credit in BSBA program.

**FINANCE 3500 Financial Management: 3 semester hours**

Prerequisites: ECON 1002, MATH 1105, and ACCTNG 2400 and a 2.0 overall GPA. The study of a firm's need for funds; the institutions, instruments and markets concerned with raising funds; and the techniques of analysis used to determine how effectively these funds, once raised, are invested within the firm.

**FINANCE 3501 Financial Policies: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. The intensification and application of the concepts developed in FINANCE 3500. Special emphasis is given to the development of top management policies and their application toward complex problems of finance. Techniques for identifying and dealing with these problems before they become acute will be investigated. Cases will be integrated with appropriate outside reading.

**FINANCE 3502 Treasury Management: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. The focus of this course is on the role cash management plays in corporate finance. Topics include cash collection and payment systems, forecasting cash flows, electronic fund transfers, check processing, international cash management and managing bank relationships. Students passing the course with a grade of A or B are permitted to take the qualifying exam to become a Certified Cash Manager (CCM) under a special arrangement with the Treasury Management Association. Along with other finance courses, this class prepares students for careers in the Treasury Departments of major companies or with service providers like banks.

**FINANCE 3503 Computer Applications In Finance: 3 semester hours**

Prerequisite: INFSYS 1800, FINANCE 3500, one 3000-level finance course and a 2.0 overall GPA. Financial problem solving and applications on the micro-computer. A project oriented course with an emphasis on micro based finance projects: Present value/IRR analysis, duration, immunization, portfolio optimization, leasing, capital budgeting, financial forecasting, options and futures.

**FINANCE 3520 Investments: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. Financial analysis of debt and equity instruments available on organized exchanges and in less tangible "over the counter" markets. Techniques of such analysis being presented in context with economic and management circumstances within the company, industry and economy.

**FINANCE 3521 Financial Engineering: Applying Derivatives: 3 semester hours**

Prerequisites: FINANCE 3500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 3520) prior to enrolling in FINANCE 3521.



**FINANCE 3523 Fixed Income Analysis: 3 semester hours**

Prerequisites: FINANCE 3500. This course explores key issues in fixed income securities. The topics include pricing of bonds, measuring bond yields, bond price volatility, factors affecting yields and the term structure of interest rates, treasury securities, corporate debt instruments, residential mortgage loans, collateralized mortgage/debt obligation, and analysis of bonds with embedded options. The course prepares students for the CFA exams of Level 1 in the area of fixed income analysis.

**FINANCE 3525 Practicum In Investments: 1 semester hour**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. Students will apply their knowledge of stocks and bonds by managing a real dollar portfolio of securities. This course requires that students perform technical and fundamental analysis, prepare research reports, present proposals and participate in group investment decisions. The University's Student Investment Trust provides the money for students to invest. Course may be repeated for credit up to a maximum of 3 credit hours.

**FINANCE 3540 Introduction to Financial Institutions and Financial Markets: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. The course surveys financial institutions and financial markets and addresses the interplay between institutions and markets. State and federal regulation of institutions and markets is explored. A portion of the course addresses current events, managerial policy issues, and regulatory issues in financial services and markets. Focus is primarily U.S. institutions and markets, but the evolving impact of globalization and importance of the Foreign Exchange Market on U. S. financial institutions are developed.

**FINANCE 3541 Commercial Bank Management: 3 semester hours**

Prerequisites: ECON 1002, FINANCE 3500 and a 2.0 overall GPA. Corporate finance and microeconomics are applied to matters of importance to commercial bankers. Among the subjects treated are bank-asset portfolio construction, lending policies, liabilities management, bank capital structure, short-run cash management, financial market rates and flows, and quantitative models for bank management. Commercial bank management is analyzed from an internal viewpoint in terms of what bank managers should look for in asset management and why; what market conditions they should be aware of; and what techniques they can use to meet changing economic and financial conditions.

**FINANCE 3542 Principles Of Real Estate: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. As an introduction to the real estate industry, the course broadly explores all phases of acquisition, development and disposal of real property. Topics include legal requirements of contracts, property rights, valuation and appraisal techniques, marketing, brokerage operations and practices, mortgage financing, leasing and property management.

**FINANCE 3560 Practice Of Personal Financial Planning: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. Professional financial planning requires broad knowledge of investments, insurance, income taxation, retirement planning, and estate planning, as well as certification requirements and legal/ethical issues. This course introduces students to the field of financial planning, and provides an integrated overview of the topics listed above. Students interested in the Financial Planning track are encouraged to complete this course prior to taking other courses in the track.

**FINANCE 3561 Principles Of Insurance: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This is a survey course intended to introduce students to the basic concepts of insurance. Topics include the nature of risks, types of insurance carriers and markets, insurance contracts and policies, property and casualty coverages, life and health insurance, and government regulations. The functions of underwriting, setting premiums, risk analysis, loss prevention, and financial administration of carriers are emphasized.

**FINANCE 3562 Life Insurance And Employee Benefits: 3 semester hours**

Prerequisites: FINANCE 3500 or equivalent and a minimum campus GPA of 2.0 This course explores the life insurance business from the perspective of both the consumer and provider. Coverage will include an analysis of the various types of life insurance products, aspects of life insurance evaluation, reinsurance, underwriting, and uses of life insurance in financial planning. Also included is an examination of the tax, legal, and ethical requirements.

**FINANCE 3563 Retirement Planning And Employee Benefits: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator The course is designed to give students an understanding of the retirement planning process. Students will gain an appreciation of the usefulness (and shortcomings) of employee benefits and develop an ability to counsel others on important retirement and employee benefit decisions. Corporate pension and profit sharing plans, self-employed Keough plans, IRA's, annuities, health insurance, and social security will be discussed.

**FINANCE 3564 Estate Planning And Trusts: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator This course will focus on the responsibility of a financial planner in the formulation and implementation of an estate plan. Topics include wills, lifetime transfers, trusts, gifts, estate reduction techniques, tax implications in estate planning, business and inter-family transfers, dealing with incompetency, postmortem techniques, and the role of fiduciaries. Lectures, cases, and guest speakers will be used to stimulate analysis and discussion.

**FINANCE 3565 Seminar in Financial Planning: 3 semester hours**

Prerequisites: ACCTNG 3441, FINANCE 3520, FINANCE 3560, FINANCE 3561, FINANCE 3563, and FINANCE 3564; a minimum campus GPA of 2.0; or permission of instructor. This course serves as the capstone in the registered Financial Planning curriculum. Students will prepare and present comprehensive, professional-level personal financial plans. This course is required by the Certified Financial Planner Board of Standards for those who wish to sit for the Certified Financial Planner examination.

**FINANCE 3580 International Corporate Finance: 3 semester hours**

Same as INTL BUS 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This course explores corporate finance in the context of a global environment. Financial managers for an international firm must deal with all the normal problems faced by domestic corporations plus additional foreign exchange and political risks. Class discussions will focus on applying financial techniques to decision making in foreign operations. Students are required to work in a group to undertake a project related to international finance.

**FINANCE 3582 International Investments: 3 semester hours**

Same as INTL BUS 3582. Prerequisites: FINANCE 3500. This course explores the concepts of investing and hedging risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.

**FINANCE 3590 Internship In Finance: 1-3 semester hours**

Prerequisite: a minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of finance electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience in a Track area are the primary goals. The student's program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project. FINANCE 3590 may not be counted toward the minimum 15 credit hours of finance electives for a finance emphasis.

**FINANCE 3595 Special Administration Problems - Finance: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**FINANCE 3598 Seminar in Finance: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of finance. May be repeated for credit with different topics.

**FINANCE 3599 Independent Study In Finance: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in finance under the supervision of a full-time finance faculty member.

**FINANCE 5599 Individual Research in Finance: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Finance under the guidance of a specific professor.

**FINANCE 6500 Financial Management: 3 semester hours**

Prerequisites: ACCTNG 5400 or ACCTNG 2400, LOG OM 5300 or LOG OM 3300, and BUS AD 5000 or ECON 1001 and ECON 1002. This course provides an in-depth analysis of corporate finance including asset pricing, risk and return, short- and long-term investment decisions, capital structure choices, dividend policy, derivatives, mergers and acquisitions, and a host of other current topics. The material is taught through lectures and problem solving.

**FINANCE 6501 Advanced Financial Management: 3 semester hours**

Prerequisite: FINANCE 6500 and LOG OM 5300. Exposure to recent financial management theory through selected readings. Financial management problems are considered by the use of cases and simulation models. An original research project under the supervision of instructor is required.

**FINANCE 6520 Security Analysis: 3 semester hours**

Prerequisite: FINANCE 6500 and LOG OM 5300 An in-depth study of techniques used in evaluating various financial assets as investment opportunities. Financial assets studied include common stock, preferred stock, and fixed income securities. Other related topics such as sources of investment information and current market trends are discussed.

**FINANCE 6521 Financial Forensics: The Science of Derivatives: 3 semester hours**

Prerequisites: FINANCE 6500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 6520) prior to enrolling in FINANCE 6521.

**FINANCE 6540 Financial Institutions and Financial Markets: 3 semester hours**

Prerequisite: Graduate Status and FINANCE 6500. By lecture and casework, the course surveys markets (Money Market, Capital Markets, Foreign Exchange) and various forms of financial institutions. Historical and evolving business models of financial institutions are explored in the context of regulation, economics, and competition. Interplay between institutions and markets is addressed. Structure and purpose of regulation is examined. A portion of the course involves current events and managerial policy issues in financial services. A major U.S. financial institution is selected and case analyzed by the class. Focus is U.S. institutions and markets, but impact of globalization is discussed.

**FINANCE 6541 Commercial Bank Management: 3 semester hours**

Prerequisite: FINANCE 6500. This course explores the various bank management techniques required to manage a modern commercial bank in a rapidly changing environment. Topics include asset and liability management, capital adequacy, bank holding companies, profitability, and bank market structure and regulation.

**FINANCE 6542 Real Estate: 3 semester hours**

Prerequisite: FINANCE 6500 This course provides a broad introduction to real estate with a focus on legal issues, market analysis, valuation, financing, leasing and investment decisions. Classes are conducted in a standard lecture format with discussion on current topics. No prior knowledge of the industry is required.

**FINANCE 6580 International Financial Management: 3 semester hours**

Same as INTL BUS 6581. Prerequisite: FINANCE 6500. The objective of this course is to introduce students to financial issues for multinational firms. Besides covering basic tools and techniques, the class stresses the role of the financial manager in analysis and decision-making. Topics include the impact of international accounting and tax issues, capital budgeting in a foreign environment, transfer pricing, and global funding. Conceptual skills for lifelong learning experiences are emphasized. This course employs a lecture and case format with group discussions.

**FINANCE 6581 Seminar In International Investments: 3 semester hours**

Same as INTL BUS 6581. Prerequisite: FINANCE 6500 This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the comprehensive project report. A prior investments course is recommended but not required.

**FINANCE 6582 International Bank Management: 3 semester hours**

Prerequisites: FINANCE 6500. The objective of this course is to introduce students to many challenging issues in international bank management. This is a specialized finance course dealing explicitly with global bank decision-makings of a multinational bank that uses a variety of financial tools and skills. The course will discuss the rapidly blurring distinctions between commercial and investment bankers. Conceptual skills for life-learning (evolving) experiences relevant to the global banking sector are emphasized.

**FINANCE 6590 Seminar In Finance: 3 semester hours**

Prerequisites: FINANCE 6500 This course incorporates a wide range of advanced topics in finance including, but not limited to, an evaluation of various financial assets as investment opportunities, trends in capital markets, derivatives and management of financial and non-financial firms.

**FINANCE 6591 Finance Internship: 1-3 semester hours**

Prerequisites: Students must have completed and/or be enrolled in at least 6 credit hours of finance electives and have consent of supervising faculty member and Area Coordinator Students work in the field of finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining sopecialized work experience are the primary goals. The student's program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project.

## Information Systems Courses

**INFSYS 1012 Learning to Program Using Virtual Worlds: 3 semester hours**

Introduces modern programming principles without requiring the knowledge of a traditional programming language. Instead, this course utilizes a novel graphical approach that enables the student to create, populate, and manipulate virtual 3-dimensional worlds which resemble video games. The development of these worlds allows students to gain direct experience and skills in using computers to solve problems. Students will create worlds of varying complexity.

**INFSYS 1800 Computers And Information Systems: 3 semester hours**

This course covers the basic concepts of networked computers including the basics of file management on local and remote computers, electronic mail, Internet browsers, and web page development. Students are also exposed to applications used in business for solving problems, communicating, and making informed decisions, including word processors, presentation software, and electronic spreadsheets. Students will also develop business applications using a popular programming language or database management tool. Credit cannot be granted for both CMP SCI 1010 and INFSYS 1800.

**INFSYS 2800 Information Systems Concepts And Applications: 3 semester hours**

Prerequisites: INFSYS 1800 or satisfactory performance on proficiency exam. Course covers concepts of information systems as they relate to business functions, including web page design and e-commerce, telecommunications, systems analysis and design, ethics of information system design and use, information security, foundations of database systems and integrated business information systems. Students will also gain valuable strategies for career development, contact management, and networking.

**INFSYS 3806 Managerial Applications Of Object-Oriented Programming I: 3 semester hours**

Prerequisites: INFSYS 1800 or CMP SCI 1250, and a 2.0 overall GPA. The course provides a study of the UNIX operating system and the C++ programming language as they pertain to managerial applications. In addition, the course will introduce the use of object-oriented programming methodologies.

**INFSYS 3807 Legacy Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. Structured COBOL programming techniques for business applications are presented. Included are report generation, control breaks, output editing, debugging, tables, sort concepts, job control language, utilities, partitioned data sets, and updating of files.

**INFSYS 3810 Information Systems Analysis: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806 or permission of instructor. Aspects and methods for managing the computer and information resources of organizations. Topics include: project management, aligning IS plans with corporate plans, MIS organizational structures, demonstrating the value of systems, facility management, purchase decisions, software acquisition, software metrics, security issues, and economic evaluation, as they relate to information resources. Special cases of systems, such as Enterprise Resource Planning (EPR) systems, Supply Chain Systems, and BPO will be discussed.

**INFSYS 3815 Object Oriented Applications In Business: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. Object-oriented programming techniques for business applications are presented. The topics are implemented in a C++ environment.

**INFSYS 3816 Managerial Application Of Object-Oriented Programming II: 3 semester hours**

Prerequisites: INFSYS 3806 and a minimum overall GPA of 2.0. This course expands object-oriented skills taught in INFSYS 3806. The emphasis in this course is on object-oriented development tools and development in a client-server environment. The data management tools will include the use of SQL to access serverbased databases.

**INFSYS 3841 Enterprise Information Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. Aspects and methods for managing the computer and information resources of organizations. Topics include: aligning IS plans with corporate plans, MIS organizational structures, demonstrating the value of MIS to senior management, facility management, purchase decisions, software acquisition, software metrics, project management, security issues, and economic evaluation, as they relate to information resources.

**INFSYS 3842 Management Of Telecommunications: 3 semester hours**

Prerequisites: INFSYS 1800 and a 2.0 overall GPA. The technical and managerial aspects of telecommunications as they apply to the business environment are discussed. Issues include: communications components and services, local area network architecture, managerial implimentations, organizational issues, and cost/benefits analyses.

**INFSYS 3843 Decision Support Systems for Business Intelligence: 3 semester hours**

Prerequisites: LOG OM 3300 and a minimum campus GPA of 2.0 Applications of intelligent decision support systems to support business intelligence are explored. DSS component design in response to decision making and business intelligence needs are discussed.



**INFSYS 3844 Developing Business Applications In NET: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. This course will enable students to design, implement, and debug object-oriented and data driven business applications in Visual Basic.NET. Students will learn application design choices, object-oriented design principles, event-driven programming, user interface programming using Windows Forms and user interface controls, data binding and database access using ADO.NET, exception handling, debugging and effective ways of working with Visual Studio.NET.

**INFSYS 3845 Database Management Systems: 3 semester hours**

Prerequisites: INFSYS 2800 and a minimum campus GPA of 2.0. This course provides an introduction to the design and use of databases in meeting business information needs. Topics include database planning, conceptual design, and data administration. The concepts are studied with projects involving the use of a current database management system.

**INFSYS 3846 E-Commerce: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course provides an understanding of strategies, managerial issues, and technologies pertaining to electronic commerce in organizations. Topics include: history, business models, the virtual value chain, electronic markets, impact on organizational strategy and industry structure, analysis of successful strategies, and other emerging issues (legal, ethical, regulatory) related to managing electronic commerce, and the technical infrastructure enabling electronic commerce.

**INFSYS 3847 Web Design: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course focuses on web page planning, design, layout and construction. Topics covered include: setting up and maintaining a web site; understanding site structure, presentation, navigation and content management. HTML/XML, CSS, Dreamweaver, Fireworks, Flash, Photoshoph, data access, scripting languages, and various other technologies and tools will be discussed.

**INFSYS 3848 Security And Information Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course addresses the challenge of assuring security in information systems - networked, embedded, and stand alone. Topics include: security policies, models, tools, and techniques for enforcement. The course also examines flawed security policies, and the consequences of penetration and disruption of information systems.

**INFSYS 3890 Internship In Management Information Systems: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of management information systems electives at the 3000 level or above and have consent of supervising instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of management information systems where they apply the knowledge and skills learned in the classroom. Professional development obtaining specialized work experience are primary goals. A management information systems faculty member will monitor the student's program with the student providing a formal written report at the end of the project. INFSYS 3890 may not be counted toward the minimum credit hours of management information systems electives required for a Management Information Systems degree.

**INFSYS 3895 Special Administrative Problems - Management Information Systems: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**INFSYS 3898 Seminar in Information Systems Management: 1-3 semester hours**

Prerequisites: To be determined each time course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of information systems. May be repeated for credit with different topics.

**INFSYS 3899 Independent Study In Information Systems: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in information systems under the supervision of a full-time information systems faculty member.

**INFSYS 4850 Information Systems Design: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; INFSYS 3810, INFSYS 3816 and INFSYS 3845. System design, implementation, and methods of systems installation and operation are presented. A system development project is required.

**INFSYS 5800 Management Information Systems: 3 semester hours**

Same as P P ADM 6800. This course provides an overview of the established and contemporary issues related to information systems within organizations. Topics include the practices and tools associated with topics such as the management of IS-based investment projects, the design and implementation of IS, the alignment of IS strategy with organizational strategy, information security and privacy, and gaining a competitive advantage through IS.

**INFSYS 5899 Individual Research in Information Systems: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Information Systems under the guidance of a specific professor.

**INFSYS 6805 Applications Of Programming For Business Solutions: 3 semester hours**

Prerequisite: ECON 4105. This course provides a study of business-oriented programming. A programming language will be introduced and discussed in detail. Emphasis will be on program definition and the use of such programs in business-oriented applications.

**INFSYS 6806 Managerial Applications Of Object-Oriented Technologies: 3 semester hours**

Prerequisite: INFSYS 6805. This course deals with business-oriented programming in an object oriented environment. The emphasis will be on program definition, and tools and development in a client-server environment. The course will involve the study of objectoriented language in addition to object-oriented methodologies for systems development.

**INFSYS 6808 Internet Programming For Business: 3 semester hours**

Prerequisite: INFSYS 6805 Focus on web-based applications development for business. It will begin with the fundamentals of web-based computing, including web client and server interaction, the MIME standard, server and client data frame headers, the CGI standard, and error conditions as they pertain to business applications. In addition, JAVA will be introduced to build web-based GUI-interfaces and back-end servers. Finally, business applications issues such as firewalls, proxy servers and data encryption using secure servers will be included.



**INFSYS 6833 Decision Support Systems for Business Intelligence: 3 semester hours**

Prerequisite: LOG OM 5300 Applications of intelligent decision support systems to support business intelligence are explored. DSS component design in response to decision making and business intelligence needs are discussed.

**INFSYS 6835 IT-Enabled Business: 3 semester hours**

Prerequisite: INFSYS 5800. IT-enabled business focuses on business models, processes, and activities made possible by the internet. The course includes theoretic aspects of e-commerce: consumer relationship management, supply chain management, inventory management, business strategy, auctions, and portals. Issues associated with electronic commerce such as security, privacy, content selection and rating, intellectual property rights, authentication, encryption, acceptable use policies, and legal liabilities are explored. Particular attention is paid to IT-enabled entrepreneurship and business creation, and IT use in small to medium sized enterprises. Case studies drawn from actual business applications will be used to reinforce theory.

**INFSYS 6836 Telecommunications: Design And Management: 3 semester hours**

Prerequisite: INFSYS 5800 (may be taken concurrently) The topic of telecommunications is addressed from both a technical and managerial viewpoint. In particular, the course will address issues such as communications components and services, local area network architecture, managerial implementations, organizational issues, and cost/benefit analyses.

**INFSYS 6837 Information Systems Architecture: 3 semester hours**

Prerequisite: INFSYS 6836 This course explores a wide range of topics necessary for understanding and managing distributed computing technology. A wide range of infrastructure and "middleware" architectural components will be explored. Finally, the course will provide a framework for understanding the capabilities and shortcomings of various distributed computing architectures, technical standards and their implications for interoperability of components.

**INFSYS 6838 Business Processes: Design, Management & Integration: 3 semester hours**

Prerequisite: INFSYS 5800. Major business processes are identified and analyzed. Issues related to characteristics, goals, benefits and costs of enterprise-wide design, and the role of information technology during the design process are discussed. Workflow automation, process modeling, analysis, automation, and redesign techniques are discussed, including the following: process inputs & entrance criteria, process outputs & exit criteria, feedback mechanisms & process correction, alternate theoretical frames for business process design, and impacts on business process design from socio-cultural forces. Case studies are used to illustrate the concepts.

**INFSYS 6840 Information Systems Analysis: 3 semester hours**

Prerequisite: INFSYS 6805 The theory and practice of structured analysis are presented. Topics may include: traditional vs. structured analysis methods, requirements analysis, user/analyst interaction, investigation of existing systems, human/machine interfaces, CASE tools, and workbenches.

**INFSYS 6845 Database Management Systems: 3 semester hours**

Prerequisites: INFSYS 5800 The course introduces the concepts of Database Management Systems for business applications. Issues in database architecture, design, administration, and implementation are covered. Projects are assigned on a mainframe DBMS and a microcomputer based DBMS to illustrate the concepts & applications.

**INFSYS 6846 Management Of Global Sourcing: 3 semester hours**

Same as INTL BUS 6846. Prerequisite: INFSYS 5800. Largely fostered by the spread of the Internet, global software development standards, global software packages, and fewer trade restrictions, organizations now regularly source software development, software maintenance, systems upgrades, platform transitions, help desks, and other IS-related work globally This course covers topics to help organizations manage global sourcing of IS work, including sourcing strategies, sourcing models (captive, joint venture, outsourcing), role of program management offices, supplier selection, engagement models, and special practices required to manage globally dispersed teams. Risk mitigation practices associated with cultural, legal, political, infrastructure, logistical, and human resource issues are also addressed.

**INFSYS 6847 Financial And Project Management: 3 semester hours**

Prerequisite: INFSYS 5800 Effective project management ensures that a project is completed on time, within budget, and has high quality. The purpose of this class is to examine the task of project resource management with a focus on IT and services. It will cover conventional aspects of project management, such as the project evaluation, planning, roles, responsibilities, scheduling, and tracking. In addition, this class will examine risk management, change management, critical chain management, build vs. buy analysis, package vs. custom solutions, vendor qualification and selection, and the roles of certification in the process. The class will also cover the management of programs or a portfolio of IT projects.

**INFSYS 6848 Knowledge Management And Business Intelligence: 3 semester hours**

Prerequisite: INFSYS 5800 Knowledge management (KM) is the process of creating, and drawing value from, an organization's intellectual assets. It deals with how to best leverage the organization's knowledge internally as well as externally. The emphasis on knowledge management within business organizations has risen dramatically in the last few years, to some extent as a result of the rapid progress in information technology capabilities. The course covers the following topics: KM tools, technologies, and systems, including knowledge repositories, knowledge portals, and expert seeker systems, creating and sustaining a knowledge sharing culture, managing and measuring intellectual capital, managing knowledge in networked organizations, including interorganizational alliances and supply chains, aligning knowledge with business strategy, risks of knowledge loss and knowledge leakage, business intelligence, and social aspects of knowledge management.

**INFSYS 6849 Data Warehouse Design and Implementation: 3 semester hours**

Prerequisites: INFSYS 6845 or consent of instructor. Course will cover different design configurations for structuring and organizing data in a data warehouse. Formal methodologies for the development of data warehouses will also be discussed and implemented.

**INFSYS 6850 Information Systems Design: 3 semester hours**

Prerequisites: INFSYS 6840 and INFSYS 6845 This course builds upon the analysis techniques presented in INFSYS 6840. It requires the student, usually working in a group to design and implement a system in a real-world environment. Advanced design concepts are presented to support the students in their project work.

**INFSYS 6851 Practicum in Business Intelligence: 3 semester hours**

Prerequisites: INFSYS 6833, INFSYS 6849, and LOG OM 6345. This course will provide the context for students to integrate, synthesize and apply their Business Intelligence skills in an actual business organization. Project work will be jointly supervised and coordinated by a faculty member and a supervisor in the relevant business organization.

***INFSYS 6881 Management Of Transnational Information Systems: 3 semester hours***

Same as INTL BUS 6881. Prerequisites: INFSYS 5800, INFSYS 6825 (may be taken concurrently) The course presents concepts of managing global information technology. Issues covered include: global information technology, systems development, electronic data interchange, cross-border data flows, and national and international information structures. Further topics may include information technology enabled economic development, global outsourcing of information systems services, and social, organizational and ethical implications.

***INFSYS 6891 Seminar In Management Information Systems: 3 semester hours***

Prerequisites: INFSYS 5800 Topics of current interest in management information systems. Topics may include international information systems, electronic commerce, decision support systems, information systems strategy, telecommunications, and information systems management.

***INFSYS 7890 IS Research Seminar: 3 semester hours***

Prerequisites: INFSYS 5800; Admittance into the Ph.D. Program Analysis of the research problems, approaches, and findings of Management Information Systems Research. May be repeated for credit when the subject matter is different.

***INFSYS 7891 Quantitative Research Methods In IS: 3 semester hours***

Prerequisites: INFSYS 5800; Admittance into the Ph.D. Program Analysis of research design and validity of quantitative methods applied to the study of Management Information Systems, including laboratory experiments, sample surveys, and field experiments.

***INFSYS 7892 Doctoral Seminar In Current Information Systems Topics: 3 semester hours***

Prerequisites: INFSYS 5800. Admittance into the Ph.D. Program Theoretical and empirical analysis of topics of long-term importance to the IS field such as systems analysis and design, systems development and implementation, and database management. A historical perspective of the technical and behavioral issues associated to IS artifacts is provided such that contemporary issues and trends can be appreciated.

***INFSYS 7893 Special Topics In Information Systems: 3 semester hours***

Prerequisite: Consent of Instructor and admittance into the Ph.D. Program In-depth analysis of special topics in IS research. May be repeated for credit when the subject matter is different.

***INFSYS 7894 Theoretical Foundations Of Information Systems Research: 3 semester hours***

Prerequisites: INFSYS 5800, Admittance to the Ph.D. Program The theoretical foundations of information systems are largely built upon the theories from other disciplines, including the physical sciences, computer science, sociology, psychology, and mathematics. In this course, we survey a variety of theoretical foundations from other disciplines by reading the original works, critical responses to these theories, and representative applications of these theories in the IS domain.

**International Business Courses*****INTL BUS 3280 The Law Of International Business Transactions: 3 semester hours***

Prerequisites: BUS AD 2900 or consent of the instructor. A study of the role and function of International Law and national laws in the regulation of international business transactions. The impact of various legal regimes on import/export transactions, foreign investments, and the operations of multinational enterprises will be included. The role of national governments, supra-national governmental organizations, and non-governmental organizations in forming and administering the international legal environment will be studied.

***INTL BUS 3281 Business In China: 3 semester hours***

Prerequisites: A minimum campus GPA of 2.0; and junior standing This course introduces students to the practices of doing business in China. Students will be introduced to the Chinese economic and business environment. Issues related to trade and foreign direct investment in China will be discussed. The course adopts an innovative approach, utilizing lectures, case analysis, projects, and student presentations.

***INTL BUS 3282 Managing The Global Workforce: 3 semester hours***

Prerequisite: A minimum of 2.0 campus GPA. In addition, MGMT 3600 and at least one of the following: MGMT 3611 or MGMT 3621 or enrollment in Honors College or consent of instructor. A study of the international dimensions of organizational behavior and human resource management. The course provides an overview of the tools and skills that are necessary to understand and manage people in global organizations. Topics include motivation, leadership, communication, hiring, training, and compensation.

***INTL BUS 3283 International Business And Society: 3 semester hours***

Encompasses the readings, lectures, company and government agency visits, and cultural visits that comprise annual Country Study Tours, (e.g., Austria, Japan, Thailand, etc.). The program includes 45 contact hours or more of classroom lectures covering aspects of the chosen country's business and society, in-depth pre-departure cross-cultural orientation and training supplemented by briefings on the country's economy and on U.S. market penetration by the Commercial Service, U.S. Embassy; a briefing by the in-country State of Missouri representative; briefings by host country agencies; company visits and factory tours; and tours of cultural sites. Student evaluation will be based on active participation and on a research paper based on readings, lectures, interviews and field observations.

***INTL BUS 3284 The Japanese Management System: 3 semester hours***

Prerequisites: MGMT 3600 This course provides an introduction to various aspects of the contemporary Japanese business system. The emphasis is on interpretation of issues from a managerial perspective. Topics include an overview of Japan's economic growth, government policies, industrial and financial structure of Japanese business, labor-management relations, internal management practices, international competitive strategies, managing U.S. subsidiaries in Japan, penetrating the Japanese market, Japanese investment in the U.S.A., and current issues in U.S. Japan economic relations.

***INTL BUS 3285 Role Of The Global Corporation: 3 semester hours***

Prerequisites: A minimum 2.0 campus GPA and MGMT 3600 or permission of the instructor. The purpose of this course is to create awareness of controversial issues about international business. Students will gain a better understanding of resistance to and criticism of international business and will become better prepared for dealing with these issues and problems.

**INTL BUS 3286 International Business Ethics: 3 semester hours**

Same as PHIL 3286. This course will deal with moral issues that are raised by the increasing globalization of business. Apart from the general issue of whether this globalization is itself a good thing, we will discuss such issues as child labor, working conditions, safety standards, environmental policies, bribery and other "corrupt" practices, respect for intellectual property, etc. Frequent short papers will be assigned.

**INTL BUS 3289 Practicum In International Business: 3 semester hours**

Prerequisites: At least one international business course, 2.0 campus GPA and completion of an approval form. Students will apply both their language skills and knowledge of international business by working for a three month period in an organization located outside the student's country of origin. This course requires students to prepare a research report summarizing the global experience and how it relates to the international business program.

**INTL BUS 3290 Internship In International Business: 3-6 semester hours**

Prerequisites: ECON 1001 and ECON 1002, ACCTNG 2400 and ACCTNG 2410, an additional 12 hours in Business Administration, concurrent enrollment in a UM overseas program; also a minimum overall gpa of 2.0. The internship will be a supervised field experience in a business/ international organization at a foreign site. Students will work for 10 weeks on projects directed by host-organization supervisors in consultation with a UM-St. Louis faculty member. Prior to the field experience students will receive training that includes familiarization with the language and practices of the country's business, the background of the host firm, and international information sources. The student will complete a written report of his/her project. Course may not be repeated for more than 6 hours credit.

**INTL BUS 3299 Independent Study In International Business: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator of the specific discipline. Special individual study in international business under the supervision of an approved faculty member.

**INTL BUS 3580 International Corporate Finance: 3 semester hours**

Same as FINANCE 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This course explores corporate finance in the context of a global environment. Financial managers for an international firm must deal with all the normal problems faced by domestic corporations plus additional foreign exchange and political risks. Class discussions will focus on applying financial techniques to decision making in foreign operations. Students are required to work in a group to undertake a project related to international finance.

**INTL BUS 3582 International Investments: 3 semester hours**

Same as FINANCE 3582. Prerequisites: FINANCE 3500. This course explores the concepts of investing and hedging risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.

**INTL BUS 3680 International Management: 3 semester hours**

Same as MGMT 3680. Prerequisites: A minimum 2.0 campus GPA. In addition, ECON 1002 and MGMT 3600; or consent of the instructor. A study of international business and management practices. Topics covered include an introduction to international management and the multinational enterprise, the cultural environment of international management, planning in an international setting, organizing for international operations, directing international operations, international staffing, preparing employees for international assignments, and the control process in an international context.

**INTL BUS 3780 International Marketing: 3 semester hours**

Same as MKTG 3780. Prerequisites: MKTG 3700 and a 2.0 overall GPA. Marketing management problems, techniques and strategies needed to apply the marketing concept to the world marketplace. Understanding a country's cultural and environmental impact on the marketing plan is emphasized, as well as competing in markets of various cultures. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, and current economic and marketing issues are examined.

**INTL BUS 3787 Marketing in the European Union: 3 semester hours**

Same as MKTG 3787. Prerequisites: MKTG 3780 or instructor's permission. The European Union (EU) is both a major customer and major competitor of the United States. The inclusion of many of the Eastern European countries into the EU has added another challenge to our ability to trade in this area. The better we understand the people, institutions and policies of the EU, the better positioned we will be to conduct business effectively. This course will emphasize understanding the institutional structure that unites the European Union as well as the cultural and political diversity of its members, and provide insights into how business activity functions in the European Environment.

**INTL BUS 4280 International Business Experience: 0 semester hours**

Students with an International Business emphasis must complete one of the following international experience requirements: (a) study abroad for three or more credit hours, (b) complete a minimum of one year international experience (e.g., Peace Corps, volunteer work, missionary work, an international posting by an organization) within 5 years of entering the program, or (c) complete an international internship approved by the International Business Institute. May be taken on a satisfactory/unsatisfactory basis only.

**INTL BUS 4281 Entrepreneurship in the Global Environment: 3 semester hours**

Prerequisites: ECON 1002; ACCTNG 2410; MKTG 3700. This course explores changes in the planet's physical environment and ways of reversing, retarding or coping with those changes. Students will be required to develop proposals for new business ventures that have as a goal preservation or restoration of the natural environment.

**INTL BUS 4289 International Strategic Management: 3 semester hours**

Prerequisites: A minimum 2.0 campus GPA and INTL BUS 3282, MKTG 3780 and FINANCE 3580 or consent of instructor. A study of the international dimensions of strategic management. Provides an introduction to the key concepts and tools necessary for international competitive analysis. Topics include the international dimensions of strategy formulation and implementation, diversification, strategic alliances, and divestment.



**INTL BUS 4381 International Logistics And Operations Management: 3 semester hours**

Same as LOG OM 4381. Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of business logistics and supply chain strategies involving shipments across national boundaries. Topics include the effects of international agreements and regional trading blocks on supply chain strategies; the design of global logistics networks; managerial processes and systems for international production and distribution, and risk management for international logistics.

**INTL BUS 5289 International Business Strategies: 3 semester hours**

Prerequisites: BUS AD 5000 and ACCTNG 5400. This course focuses on those managerial issues which follow from the definition and implementation of corporate strategy for worldwide operations, as distinguished from purely domestic firms or those only marginally involved in international activities. It aims to develop an appreciation for the unique competitive, sociocultural and political environments in which international business takes place and the skills required to deal with these changes.

**INTL BUS 5290 Internship In International Business: 3 semester hours**

Prerequisites: Consent of IMBA Director. Students will apply both their language skills and knowledge of international business by working in an organization located outside the student's country of origin. This course requires students to submit regular evaluations and prepare a research report summarizing their global experience and how it relates to the international business program.

**INTL BUS 5381 International Logistics And Operations Management: 3 semester hours**

Same As LOG OM 5381. Prerequisites: LOG OM 5320 A study of international logistics and operations management strategy, planning and operations. Topics may include multinational logistics and supply chain strategies, global network design and sourcing, international transportation, distribution and operations, import-export, risk management, etc.

**INTL BUS 5480 International Accounting: 3 semester hours**

Same as: ACCTNG 5480. Prerequisites: ACCTNG 3402. Accounting practices for multinational businesses. Discussion of comparative financial accounting practices, the development of international accounting standards, and managerial accounting practices related to multinational operations.

**INTL BUS 5780 Seminar In International Marketing: 3 semester hours**

Same as MKTG 5780. Prerequisite: MKTG 5700. An advanced seminar on topics in international or global marketing. Possible topics include the globalization of trade, export marketing, international market opportunity analysis, and negotiation for international marketers. Students who take one version of this course (e.g., globalization of trade) can take a second version of the course (e.g., negotiation for international marketers) with prior permission.

**INTL BUS 6580 International Financial Management: 3 semester hours**

Same as FINANCE 6580. Prerequisite: FINANCE 6500. The objective of this course is to introduce students to financial issues for multinational firms. Besides covering basic tools and techniques, the class stresses the role of the financial manager in analysis and decision-making. Topics include the impact of international accounting and tax issues, capital budgeting in a foreign environment, transfer pricing, and global funding. Conceptual skills for lifelong learning experiences are emphasized. This course employs a lecture and case format with group discussions.

**INTL BUS 6581 Seminar In International Investments: 3 semester hours**

Same as FINANCE 6581. Prerequisite: FINANCE 6500. This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the comprehensive project report. A prior investments course is recommended but not required.

**INTL BUS 6846 Management Of Global Sourcing: 3 semester hours**

Same as INFSYS 6846. Prerequisite: INFSYS 5800. Largely fostered by the spread of the Internet, global software development standards, global software packages, and fewer trade restrictions, organizations now regularly source software development, software maintenance, systems upgrades, platform transitions, help desks, and other IS-related work globally. This course covers topics to help organizations manage global sourcing of IS work, including sourcing strategies, sourcing models (captive, joint venture, outsourcing), role of program management offices, supplier selection, engagement models, and special practices required to manage globally dispersed teams. Risk mitigation practices associated with cultural, legal, political, infrastructure, logistical, and human resource issues are also addressed.

**INTL BUS 6881 Management Of Transnational Information Systems: 3 semester hours**

Same as INFSYS 6881. Prerequisites: INFSYS 5800, INFSYS 6825 (may be taken concurrently). The course presents concepts of managing global information technology. Issues covered include: global information technology, systems development, electronic data interchange, cross-border data flows, and national and international information structures. Further topics may include information technology enabled economic development, global outsourcing of information systems services, and social, organizational and ethical implications.

**INTL BUS 7000 intl bus test: 1 semester hour**

## Logistics and Operations Management Courses

**LOG OM 3300 Business Statistics: 3 semester hours**

Prerequisites: MATH 1100, MATH 1105, INFSYS 1800 and a 2.0 campus GPA. Construction and use of statistical models for business management. Students will learn techniques used for relational analysis and business forecasting and how to apply them in a business context. Tools include CHI-Square tests of statistical independence; analysis of variance; simple linear regression and correlation; multiple linear regression; and extrapolative techniques such as moving averages and exponential smoothing. Emphasis is placed on problem definition, construction of statistical models, analysis of data, and interpretation of results. Computers are used for extensive analyses of case data.

**LOG OM 3320 Introduction To Operations Management: 3 semester hours**

Prerequisites: A 2.0 campus GPA and either (ECON 1001, ACCTNG 2410 and LOG OM 3300) or (MATH 2000 and MATH 1320). An examination of the concepts, processes, and institutions which are fundamental to an understanding of manufacturing and service operations within organizations. Emphasis is on the management and organization of operations and upon the application of quantitative methods to the solution of strategic, tactical and operational problems.



**LOG OM 3349 Project Consulting and Execution: 3 semester hours**

Prerequisite LOG OM 3300 or equivalent and LOG OM 3320 or equivalent (may be taken concurrently). Provides real world experience in planning and executing projects. The class will have teams of students work on projects sponsored by companies and not for profit organizations for 2 to 6 weeks at a time. It will provide students practice in critical thinking, analysis, communication, and other critical skills identified as necessary for employees to function at a high level in their jobs.

**LOG OM 3390 Internship In Logistics And Operations Management: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of LOM electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of Logistics and Operations Management (LOM) where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. An LOM faculty member will monitor the student's program with the student providing a formal written report at the end of the project. LOG OM 3390 may not be counted toward the minimum credit hours for the LOM emphasis.

**LOG OM 3395 Special Administrative Problems - Management Science: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**LOG OM 3398 Seminar in Logistics and Operations Management: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of logistics and operations management. May be repeated for credit with different topics.

**LOG OM 3399 Independent Study In Logistics And Operations Management: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in logistics and operations management under the supervision of a full-time logistics and operations management faculty member.

**LOG OM 4312 Business Forecasting: 3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 or graduate standing; also either LOG OM 3320 or (MATH 3000 and MATH 1320) Further study of statistical tools for forecasting in a decision-making context. Topics include explanatory models (multiple regression), classical time series decomposition, and extrapolative techniques (exponential smoothing and Box-Jenkins procedures). In addition, methods for considering problems of intervention effects, seasonality, and collinearity will be discussed. Students will perform extensive analyses of time series data using computer packages.

**LOG OM 4321 Production and Operations Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. Application of the tools and techniques of statistical decision theory and operations research to production and operating problems. Emphasis is on the use of mathematical modeling and simulation techniques to analyze complex and ill-structured problems in large-scale systems.

**LOG OM 4322 Lean Production In Manufacturing And Service Operations: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320 Study of Lean Production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement techniques, quick set-ups, total productive maintenance, kanban scheduling, cellular production, team organization of workers, supplier relations, quality management, and the environmental aspects of production.

**LOG OM 4324 Service Operations Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial, transportation, hospitality, and governmental services industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management service quality, staffing, and personnel scheduling.

**LOG OM 4325 Environmental Sustainability in Business Operations: 3 semester hours**

Prerequisites: LOG OM 3320 or permission of instructor. This course studies the environmental impacts of business operations, and it focuses especially on the principles and methods of "lean and green" operations, i.e., ways in which organizations can reduce their costs and increase profits, while reducing their environmental impacts. Specific topics include energy efficiency, resource reduction, waste reduction, design for the environment, externalities and internal pricing mechanisms, environmental technologies, life-cycle assessment, recycling, re-use, and re-manufacturing, as well as national and global environmental issues.

**LOG OM 4326 Quality Assurance In Business: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of statistical quality control concepts and procedures applicable to management systems, administrative activities, service industries, and nonprofit organizations. Some successful quality assurance programs will be examined.

**LOG OM 4330 Business Logistics Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. Analysis of business logistics systems, their design, and operation. Topics include: network design, facility location, transportation, vehicle routing, storage and handling capacity planning, inventory management, and customer service.

**LOG OM 4347 Introduction to Project Management: 3 semester hours**

Prerequisites: LOG OM 3320. This course introduces the concepts and practices of Project Management with a focus on Logistics and Operations Management related projects. It will cover conventional aspects of project management, such as the project evaluation, planning, roles, responsibilities, scheduling, and tracking. In addition, this class will introduce agile project management as applicable to projects where there is not the specificity of goals or solutions to be applicable to traditional project management.

**LOG OM 4350 Management Science Methods: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320 or MATH 3000 and MATH 1320. Applications of the theories and techniques of operations research to problems of business, government, and industry with emphasis on the construction and utilization of quantitative decision models.

**LOG OM 4354 Management Science Methods II: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 4350. Topics of special interest including mathematical programming, stochastic decision-making, digital simulation, game theory, and other selected techniques. (Formerly Mathematical programming).

**LOG OM 4381 International Logistics And Operations Management: 3 semester hours**

Same as INTL BUS 4381. Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of business logistics and supply chain strategies involving shipments across national boundaries. Topics include the effects of international agreements and regional trading blocks on supply chain strategies; the design of global logistics networks; managerial processes and systems for international production and distribution, and risk management for international logistics.

**LOG OM 4398 Seminar in Logistics and Operations Management: 1-3 semester hours**

Prerequisites: LOG OM 3320 or permission of the instructor and a minimum 2.0 campus GPA. For some topics additional prerequisites may be required. An intensive study of a specific aspect, problem or technique in the areas of logistics, operations management, or supply chain management. Different topics may be offered under this course number, so the course (with different topics) can be repeated for credit.

**LOG OM 5300 Statistical Analysis For Management Decisions: 3 semester hours**

Prerequisites: INFSYS 5800 (may be taken concurrently) and ECON 4105 with a minimum grade of "C" The role of statistical evidence in the formation of inference and in the selection of strategies in solving business problems is developed. Probability and probability distributions are studied as a basis of statistical inference. An introduction to multivariate analysis is provided, which includes analysis of variance and regression methods.

**LOG OM 5312 Advanced Statistical Methods For Management Decisions: 3 semester hours**

Prerequisites: LOG OM 5300 The application of statistical methods to managerial problems, forecasting and business research. Topics include the blending of multiple regression and analysis of variance into a general linear model, logistic models, techniques for projecting seasonal time series, and forecasting techniques (ARIMA models) which deal with serially correlated data. Through class presentations, assigned exercises and a major project, students gain experience in constructing explanatory and predictive models for problems in marketing, finance, etc. Students use commercial software (e.g. the Statistical Analysis System) for analyzing data, constructing models and producing reports.

**LOG OM 5320 Production And Operations Management: 3 semester hours**

Prerequisites: LOG OM 5300 This course discusses issues related to the creation and delivery of goods and services. Topics include the design of production processes, the layout and location of facilities, forecasting, scheduling, inventory control, queuing, materials planning, and quality control. Analytical techniques such as linear programming are used in studying these problems.

**LOG OM 5322 Lean Production: 3 semester hours**

Prerequisites: LOG OM 5320. Study of Lean Production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement, set-up reduction, total productive maintenance, kanban scheduling, cellular production, work teams, supplier relations, quality management, and the environmental aspects of production. Cases and a course project will be used to integrate and apply the course material.

**LOG OM 5324 Service Operations Management: 3 semester hours**

Prerequisite: LOG OM 5320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial, transportation, hospitality, and governmental services industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management, service quality, staffing, and personnel scheduling.

**LOG OM 5325 Environmental Analysis and Sustainability in Business Operations: 3 semester hours**

Prerequisites: LOG OM 5320 or permission of instructor. This course studies the environmental impacts of business operations, and it focuses especially on the principles and methods of "lean and green" operations, i.e., ways in which organizations can reduce their costs and increase profits, while reducing their environmental impacts. Specific topics include energy efficiency, resource reduction, waste reduction, design for the environment, externalities and internal pricing mechanisms, environmental technologies, life-cycle assessment, recycling, re-use, and re-manufacturing, as well as national and global environmental issues.

**LOG OM 5326 Quality Management: 3 semester hours**

Prerequisites: LOG OM 5300 or MATH 4200 or permission of instructor. An applied course on total quality management. Quality improvement approaches are presented and the managerial implications and responsibilities in implementing these approaches are discussed. Topical coverage includes the construction and interpretation of control charts, graphical methods, quality function deployment, robust experiments for product design and improvement, mistake-proofing (poke yoke), the Deming approach, Baldrige award criteria, quality cost audits, worker empowerment and reward systems. Cases involving both business processes and physical processes are used to illustrate successful quality improvement efforts.

**LOG OM 5334 Internship In Logistics And Supply Chain Management: 1 semester hour**

Prerequisite: Consent of Instructor Students receive practical experience in the area of logistics or supply chain management. The internship is supervised by a professional in the host organization in consultation with a faculty member.

**LOG OM 5340 Transportation Economics for Business Managers: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5000 or permission of the instructor. This course makes use of a range of economic concepts to examine the nature of markets in which transport services are provided. This course is designed for future transportation professionals who wish to explore the fundamentals of economics in their field. Basic concepts covered include the theory of transportation demand, transportation costs and investment planning, and current topics in transportation economics such as regulation-deregulation and social cost pricing.

**LOG OM 5349 Project Consulting and Execution: 3 semester hours**

Prerequisites: LOG OM 5300 or equivalent; LOG OM 5320 or equivalent (may be taken concurrently). Provides real world experience in planning and executing projects. The class will have teams of students work on projects sponsored by companies and not for profit organizations for 2 to 6 weeks at a time. It will provide students practice in critical thinking, analysis, communication, and other critical skills identified as necessary for employees to function at a high level in their jobs. A student may NOT count LOG OM 5349 and an internship toward the LOG OM emphasis. Only one of the two would count.

**LOG OM 5354 Simulation For Managerial Decision Making: 3 semester hours**

Prerequisites: LOG OM 5320. Introduction to simulation as a managerial decision-making aid. Application of simulation to a number of management science-oriented problems. This course introduces and requires use of a simulation language.

**LOG OM 5381 International Logistics And Operations Management: 3 semester hours**

Same as INTL BUS 5381. Prerequisites: LOG OM 5320. A study of international logistics and operations management strategy, planning and operations. Topics may include multinational logistics and supply chain strategies, global network design and sourcing, international transportation, distribution and operations, import-export, risk management, etc.

**LOG OM 5399 Individual Research in Logistics and Operations Management: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Logistics and Operations Management under the guidance of a specific professor.

**LOG OM 6330 Business Logistics Systems: 3 semester hours**

Prerequisites: LOG OM 5320 (may be taken concurrently). Analysis of business logistics systems and their role in supply chain management. covers both design and operation of logistics systems and their components. Topics may include network design, facility location, transportation, vehicle routing, inventory management, customer service, reverse logistics and logistics information systems.

**LOG OM 6331 Logistics And Supply Chain Operational Modeling: 3 semester hours**

Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the operational management of logistics and supply chains. This course covers the economic tradeoffs involved in such decisions, data requirements, operating parameters, and application of software packages to problems such as vehicle routing and scheduling, freight shipments consolidation, cross-docking, and other operational and tactical strategies. This "hands on" course is designed to prepare students for higher-level supply chain analyses and consulting work.

**LOG OM 6332 Logistics And Supply Chain Strategic Modeling: 3 semester hours**

Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the planning and strategic management of logistics networks and supply chains. The course identifies and explores the economic and customer service tradeoffs involved in such networks. Issues such as location of facilities assignment of production and distribution missions to facilities, identification of sourcing relationships amongst facilities, and identification of cost and customer service consequences of alternative supply chain designs are addressed by the application of commercial software packages to support decision making. This "hands on" course is designed to prepare students for high-level supply chain analyses and consulting work.

**LOG OM 6338 Business Processes: Design, Management & Integration: 3 semester hours**

Prerequisites: LOG OM 5320. This course presents the concepts and state of the art / state of the practice of business process design and business process management for improving business performance, effectiveness, quality, customer service and satisfaction. Issues related to characteristics, goals, benefits and costs of enterprise-wide design, and the role of information technology during the design process will be discussed. Specific topics will include: the history and development of process focused businesses and the impacts on processes caused by just-in-time and total quality management philosophies, organizational learning, strategy mapping, et.al. We will also discuss the exploitation of core competencies and changing business scenarios such as globalization and electronic-commerce. We will draw from the literature to explore the notion of moving from business strategies to business processes. We will review current writings relative to the subject, and then will apply our knowledge to actual process design, documentation, analysis and simulation. We will introduce computer-based modeling tools for process design and simulation, and use those tools in both in-class and individual work.

**LOG OM 6345 Business Analytics and Data Mining: 3 semester hours**

Prerequisites: LOG OM 5300 and INFSYS 5800. This course concentrates on methods for converting data into business intelligence. It provides knowledge of the principles and techniques for business analytics and data mining. Topics include clustering, pattern recognition, visualization of relationships, predictive modeling, optimization techniques and simulation.

**LOG OM 6347 LOM Project Management: 3 semester hours**

Prerequisites: LOG OM 5320. This course addresses the concepts and processes of project management as applicable to Logistics and Operations Management. Students study organizational design, project specification, integrated project planning, risk management and project control; students will come to understand how globalization, environmental and sustainability issues, quality control (including industry standard initiatives such as the Continuing Integration Improvement Model and the International Standards Organization model), and cultural factors drive project management. NOTE: Credit may not be earned for both LOG OM 6347 and INFSYS 6847.

**LOG OM 6350 Management Science Methods: 3 semester hours**

Prerequisites: LOG OM 5320. This course provides a working knowledge of management science techniques. It emphasizes analytical approaches to solving business problems, construction of mathematical models, and manipulation of model variables for managerial decision-making. Topics include mathematical programming, including integer and network models, heuristics, and simulation models.

**LOG OM 6395 Seminar In Logistics And Operations Management: 3 semester hours**

Prerequisite: LOG OM 5320 Topics of current interest in logistics and operations management. Topics may include just-in-time and lean production, quality management, manufacturing and service systems, transportation and logistics, quantitative management tools, etc.



**LOG OM 7381 International Supply Chain Management: 3 semester hours**

Prerequisites: LOG OM 5320; Admittance into the Ph.D. Program  
A comprehensive examination of international logistics and supply chain management strategies, planning and operations from the firm's perspective. Topics may include multinational logistics and supply chain issues and management strategies, multinational sourcing and network design, transportation issues in international supply chains, multinational distribution and operations, legal and financial issues in import and export, risk identification and management in international supply chains, and the relationship of supply chain management to other activities of international firms.

**LOG OM 7390 Research Seminar In LSCM: 3 semester hours**

Prerequisites: LOG OM 6330; Admittance into the Ph.D. Program.  
Analysis of research approaches, and findings in Logistics and Supply Chain Management. May be repeated for credit when the subject matter is different.

**LOG OM 7393 Special Topics In LSCM: 3 semester hours**

Prerequisites: Consent of Instructor; Admittance into the Ph.D. Program  
In-depth analysis of special topics in Logistics and Supply Chain Management research. May be repeated for credit when the subject matter is different.

**Management Courses****MGMT 3600 Management And Organizational Behavior: 3 semester hours**

Same as SOC 3600. Prerequisites: Junior standing and a 2.0 overall GPA.  
This course involves the study of the behavior of individuals and groups in an organizational setting. Specific topics examined include: motivation, leadership, organizational design, and conflict resolution, as well as basic coverage of management principles. In covering these topics, both "classic" and current perspectives are provided.

**MGMT 3611 Advanced Management And Organizational Behavior: 3 semester hours**

Prerequisites: MGMT 3600 and a 2.0 overall GPA. Building upon MGMT 3600, course provides a more detailed examination of motivation, leadership, group process, decision making, job design, and organizational development. In addition to providing more detail in terms of content, this course provides the student with considerable practical experience through the use of class exercises, case studies, and small group discussions.

**MGMT 3612 Professional Skills Development: 3 semester hours**

Prerequisite: A minimum 2.0 campus GPA and Junior Standing  
This course focuses on career management. Topics include job search, interviews, resumes and cover letters, presentation skills, business etiquette, entry strategies, and career alternatives.

**MGMT 3621 Human Resource Management: 3 semester hours**

Prerequisites: MGMT 3600 and a 2.0 overall GPA. In-depth examination of selected human resource management issues from a contemporary manager's viewpoint. Topics examined include: employee selection, performance appraisal, training and development, compensation, legal issues, and labor relations.

**MGMT 3622 Industrial And Labor Relations: 3 semester hours**

Prerequisite: MGMT 3600 and a 2.0 overall GPA. Emphasis is on the dynamic relationship between management, employees, unions, and government as determinants in the efficient and effective use of human resources. Current issues and case material are used to supplement text and lecture.

**MGMT 3623 Industrial And Organizational Psychology: 3 semester hours**

Same as PSYCH 3318. Prerequisite: PSYCH 2201 or MATH 1105, MGMT 3600. This course introduces the student to psychological research and theories pertaining to human behavior in the work setting. Topics covered include: selection, performance appraisal, training, leadership, motivation, job satisfaction, and organizational design.

**MGMT 3624 Employee Training And Development: 3 semester hours**

Prerequisites: A minimum overall GPA of 2.0. In addition, MGMT 3600 or permission of instructor. An intensive study of training in organizations, including needs analysis, learning theory, management development, and development of training objectives and programs. Projects and exercises are used to supplement the readings.

**MGMT 3625 Leadership in Organization: 3 semester hours**

Prerequisites: MGMT 3600 and a minimum 2.0 campus GPA. This course introduces classic and contemporary theories of leadership. The emphasis is on building a sound grasp of good practice and on developing the student's ability to apply such knowledge as he/she enters today's global workforce. The course covers key theories and models of effective leadership in organizations.

**MGMT 3680 International Management: 3 semester hours**

Same as INTL BUS 3680. Prerequisites: A minimum 2.0 campus GPA. In addition, ECON 1002 and MGMT 3600; or consent of the instructor. A study of international business and management practices. Topics covered include an introduction to international management and the multinational enterprise, the cultural environment of international management, planning in an international setting, organizing for international operations, directing international operations, international staffing, preparing employees for international assignments, and the control process in an international context.

**MGMT 3690 Internship In Management: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Management electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of Management where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Management faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BA 3690 may not be counted toward the minimum 12 credit hours of management electives required for a MOB emphasis.

**MGMT 3695 Special Admin Problems - Management & Organization Behavior: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**MGMT 3698 Seminar in Management: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of management. May be repeated for credit with different topics.

**MGMT 3699 Independent Study In Management: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in management under the supervision of a full-time management faculty member.



**MGMT 4219 Strategic Management: 3 semester hours**

Prerequisites: Senior standing and FINANCE 3500, MKTG 3700, MGMT 3600; a minimum overall GPA of 2.0.; and concurrent enrollment MGMT 4220. This is a capstone course drawing on the subject matter covered in prerequisite courses. Emphasis is on the formulation and implementation of corporate, business and functional strategies designed to achieve organizational objectives. Topics include the role of top management, globalization of business and ethical perspectives. Case studies and research reports may be used extensively. (It is preferred that this course be taken during the student's final semester.

**MGMT 4220 Business Assessment Testing: 0 semester hours**

Prerequisite: Concurrent enrollment in MGMT 4219, Strategic Management. A one-time lab during which a major field exam in business is administered. Course graded on a satisfactory/ unsatisfactory basis. Satisfactory grade required for graduation.

**MGMT 4614 Entrepreneurship/Small Business Management: 3 semester hours**

Prerequisite: BUS AD 2900, FINANCE 3500, MKTG 3700, MGMT 3600, and a 2.0 overall GPA. This integrative general management course is designed to communicate the academic principles of business management applicable to solving of problems of small and medium-size businesses and assist in their development. This course will provide a background in the forms of business, the development of business plans and systems integration, venture capital, accounting, procurement, promotion, financing, distribution and negotiations for initial organization, and operation and expansion of the firm.

**MGMT 5600 Organizational Behavior And Administrative Processes: 3 semester hours**

Same as P P ADM 6600. The theoretical and research contribution of the behavioral sciences to management and administration are examined and applied to selected organizational situations. Areas to be considered from the standpoint of both individual and organizational performance are communication, motivation, conflict, decision-making, goal setting, leadership, organizational design, climate, development and control. Utilizing a systems perspective, the course attempts to develop in each student an ability to analyze and solve organizational problems.

**MGMT 5611 Advanced Organizational Behavior And Administrative Processes: 3 semester hours**

Prerequisite: MGMT 5600. An indepth examination of selected organizational and individual theories affecting behavior and operating performance. Organizational structure and design, formal and informal organization, decision making, communications and motivation are analyzed for their organizational impact. The course seeks to develop further the ability to analyze and evaluate organizational processes and individual behavior.

**MGMT 5612 Negotiating Workplace Conflict: 3 semester hours**

Same as P P ADM 6680. Prerequisites: P P ADM 6600 / MGMT 5600, and Graduate Standing Examines conflict and cooperation between individuals, groups, and organizations over the control of work. A central theme is how this conflict is expressed, controlled and resolved. Students will participate in exercises to learn the basics of two-party negotiations.

**MGMT 5614 Managing Organizational Change And Design: 3 semester hours**

Prerequisites: MGMT 5600 (may be taken concurrently). This course examines the ways to manage organizational change to meet the rapid pace of change in the business environment. Cases and current research inform class discussions of different types of restructuring. Topics may include creating learning organizations, designing for innovation, managing growth and downsizing, and building sustainable organizations.

**MGMT 5621 Managing Human Resources: 3 semester hours**

Prerequisite: MGMT 5600. In-depth examination of selected of human resource management issues from a contemporary manager's viewpoint. Topics examined include: personnel planning; employee selection; performance appraisal, training, and development; compensation; legal issues; discipline; and labor relations. The course examines these topics as they relate primarily to operational activities in organizations.

**MGMT 5622 Union-Management Relations And Collective Bargaining: 3 semester hours**

Prerequisite: MGMT 5600 and BUS AD 5900. Primary concern is with the setting and the dynamics of contract negotiation and administration. Emphasis is on the development of insight and understanding of the forces affecting the decisions of the parties to a labor contract within the context of the social, political and economic environment of the organization. A dynamic approach is taken to examine difficulties that arise in attempting to administer a collectively established relationship between employer and employee.

**MGMT 5625 Selected Topics In Human Resource Management: 3 semester hours**

Prerequisites: MGMT 5621 and LOG OM 5300. This course provides an advanced treatment of selected human resource management topics. Primary focus is on topics such as job analysis, pre-employment screening devices, test validation, and civil rights laws. Other topics, such as performance appraisal, recruitment, promotions, and terminations may be covered. Various class projects may be assigned to supplement readings, lectures, and discussion.

**MGMT 5695 Seminar In Management: 3 semester hours**

Prerequisites: MGMT 5600 Topics of current interest in management. Possible topics include: human resource management, international management, and entrepreneurship.

**MGMT 5699 Individual Research in Management: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Management under the guidance of a specific professor.

## Marketing Courses

**MKTG 3700 Basic Marketing: 3 semester hours**

Prerequisites: ECON 1001, Junior standing and a 2.0 overall GPA. An examination of the character and importance of the marketing process, its essential functions and the institutions performing them. Attention is focused on the major policies (such as distribution, product, price, and promotion) which underlie the multifarious activities of marketing institutions and the managerial, economic, societal implications of such policies.

**MKTG 3710 Consumer Behavior: 3 semester hours**

Prerequisites: MKTG 3700, and a minimum overall GPA of 2.0. A study of such consumer functions as decision-making, attitude formation and change, cognition, perception, and learning. The marketing concepts of product positioning, segmentation, brand loyalty, shopping preference and diffusion of innovations are considered in context with the environmental, ethical, multicultural and social influences on an increasingly diverse American consumer.

**MKTG 3720 Management Of Promotion: 3 semester hours**

Prerequisite: MKTG 3700 and a 2.0 overall GPA. A study of the design, organization and implementation of the marketing "communications mix". Various methods such as advertising, personal selling, and publicity are analyzed as alternatives for use alone, or in combination to stimulate demand, reseller support, and buyer preference. Particular topics considered include: media selection, sales promotionals, packaging, selling strategy and their relationships in the promotion process.

**MKTG 3721 Introduction to Digital Marketing Strategies: 3 semester hours**

Prerequisites: MKTG 3700 and a minimum campus GPA of 2.0. This course explores the world of digital media marketing and how it impacts and is integrated along with our traditional marketing channels. We will explore how the balance of power has shifted between brands and consumers. Consumers are more active in the marketing process and in influencing how brands communicate with them than ever before. In particular we will explore: The latest digital marketing trends, how to build a strong website from an organic perspective, search strategies for success, website intelligence and tracking using Google Analytics, retaining customers via Email marketing, online Display advertising, social media strategy, affiliate marketing, mobile marketing trends and developing an integrated marketing plan.

**MKTG 3722 Introduction to Social Media Marketing: 3 semester hours**

Social networks are becoming an integral part of the marketing mix. In these platforms, brands can engage with prospects and consumers on many levels. In this course you will learn how to create a brand presence on these social networks, understand the differences between earned and paid media, be introduced to the various tools (free and paid) used to listen and engage with consumers, discuss how brands manage healthy communities, learn techniques used social media managers to identify influencers, and study the various ways engagement is measured including calculating social media return on investment. Social networks to be discussed throughout the semester will include Facebook, Twitter, Tumblr, Instagram, LinkedIn, etc. Students will also be introduced to the various social measurement tools including Netbase (our partner), HootSuite, TweetDeck, Sprinklr, Technorati, etc. Real life case examples will be used throughout the semester.

**MKTG 3738 Advertising Technique: 3 semester hours**

Same as MEDIA ST 3338. Prerequisites: MEDIA ST 1100 or MKTG 3700 or consent of instructor. Techniques for creating advertising messages and campaigns to reach target audiences. Focus on the process of persuasion, importance of advertising in modern economics, rationale for company advertisement, evaluation of advertising effectiveness, and assessment of advertising myths and truths. Practical application of messages and campaigns will be stressed.

**MKTG 3740 Marketing Analysis: 3 semester hours**

Prerequisites: INFSYS 1800, MKTG 3700, LOG OM 3300, and a 2.0 Overall GPA. An investigation of the acquisition, presentation, and application of marketing information for management. Particular problems considered are defining information requirements, evaluating research findings, and utilizing information. Statistical methods, models, and/or cases are employed to illustrate approaches to marketing intelligence problems, such as sales forecasts, market delineation, buyer motives, store location, and performance of marketing functions.

**MKTG 3750 Sales Management: 3 semester hours**

Prerequisites: MKTG 3700 and MGMT 3600. (MGMT 3600 may be taken concurrently). Also a minimum campus GPA of 2.0. The aim of this course is to provide an understanding of how selling is critical to the success of marketing. The course will promote critical thinking skills as well as practical selling skills needed in a competitive marketplace. Course topics include, among others, selling principles & techniques, understanding of the tasks and roles of the sales manager, the management of sales professionals within an organization, developing and applying effective persuasive communications, creating a vision, developing and implementing a sales-team strategy, structuring sales-force, designing and assigning territories, recruiting, training, motivation and evaluating salespeople, methods of compensation, and forecasting sales. The emphasis will be on ways the sales-force can be molded to build long-lasting relationships with customers through the systematic analysis and solution of customer's problems.

**MKTG 3760 Business To Business Marketing: 3 semester hours**

Prerequisites: Senior standing, MATH 1105, MKTG 3700 and a 2.0 overall GPA. A study of the nature of the business-to-business (organizational) marketplace, concentrating on those aspects that differentiate it from consumer markets. The major focus of the course is marketing strategy, starting with analysis of the market wants and segments, concepts of pricing, the distribution arrangements, and buyer/seller relations. In this last area, consideration will be given to service, personal selling, sales promotion, and advertising, as found in the organizational marketplace. At all times emphasis is given to relating business-to-business marketing strategy to basic concepts in underlying business disciplines. Lectures and case discussions are used heavily in the course.

**MKTG 3770 Introduction To Transportation: 3 semester hours**

Prerequisite: A minimum campus GPA of 2.0; also Junior standing or instructor consent. This course provides an overview of the transportation sector, including history, providers, users, and government regulation. The importance and significance of transportation, the operational aspects of transportation modes of rail, water, motor, air and pipeline; the demand and supply of transportation, and the managerial aspects of these modes of transport will be covered in the course.

**MKTG 3771 Traffic And Transportation Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and Junior standing or instructor's consent. This course focuses on the purchase of transportation and warehouse services and/or the operation of transportation services as a firm activity. This course is also designed to provide the student with an exposure to the managerial aspects of transportation management as a function of the firm's logistical strategy. In addition, it includes an introduction to the management of firms with the various transportation modes of rail, motor, air, water, and pipelines. This course is designed to provide the student with a basic understanding of the issues and work performed by traffic managers and the management of modern transportation firms.

**MKTG 3776 Transportation Security, Safety and Disaster Preparedness: 3 semester hours**

Prerequisites: Junior standing or instructor's consent. This course emphasizes security issues related to the nation's highway, aviation, pipeline, inland waterway, transit, and rail networks, as well as port facilities. This course provides an overview of transportation safety issues including passenger and employee safety and hazardous materials. Strategies to prepare for transportation-related disasters in addition to the transport of people and goods after terrorism events or natural disasters are also addressed.

**MKTG 3777 Aviation in American Life: 3 semester hours**

Prerequisites: Junior standing or instructor's consent. This course focuses on the history and business of aviation in the United States from balloon flights preceding the Wright brothers through the terrorist attacks in September 2001 with emphasis upon how aviation and aviators have influenced American society, culture. Themes include the evolution of aviation technology, the growth of the commercial/military aviation/aerospace industries, issues of race and gender in aviation, the development of America's commercial airlines, aviation's influence upon American art, films, advertising, and literature, the significance of the space race, and the role of aerial weapons of war.

**MKTG 3780 International Marketing: 3 semester hours**

Same as INTL BUS 3780. Prerequisites: MKTG 3700 and a 2.0 overall GPA. Marketing management problems, techniques and strategies needed to apply the marketing concept to the world marketplace. Understanding a country's cultural and environmental impact on the marketing plan is emphasized, as well as competing in markets of various cultures. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, and current economic and marketing issues are examined.

**MKTG 3785 Women in International Entrepreneurship: 3 semester hours**

Prerequisites: MKTG 3700; MKTG 3780 or INTL BUS 3780; and Junior standing. This course is an integration of international business and entrepreneurship, with a focus on women entrepreneurs. It is designed to help students learn how entrepreneurs create and grow their ventures internationally. We will examine how entrepreneurs search, evaluate, and exploit opportunities across national boundaries to market goods and services effectively. We will explore the unique circumstances faced by women entrepreneurs and the appropriate strategies developed in order to sustain international growth.

**MKTG 3787 Marketing in the European Union: 3 semester hours**

Same as INTL BUS 3787. Prerequisites: MKTG 3780 or instructor's permission. The European Union (EU) is both a major customer and major competitor of the United States. The inclusion of many of the Eastern European countries into the EU has added another challenge to our ability to trade in this area. The better we understand the people, institutions and policies of the EU, the better positioned we will be to conduct business effectively. This course will emphasize understanding the institutional structure that unites the European Union as well as the cultural and political diversity of its members, and provide insights into how business activity functions in the European Environment.

**MKTG 3790 Internship In Marketing: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Marketing electives and have consent of supervising marketing instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of Marketing where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Marketing faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BA 3790 may be counted toward the minimum credit hours of marketing electives required for a marketing emphasis.

**MKTG 3795 Special Administration Problems - Marketing: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**MKTG 3798 Seminar in Marketing: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of marketing. May be repeated for credit with different topics.

**MKTG 3799 Independent Study In Marketing: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in marketing under the supervision of a full-time marketing faculty member.

**MKTG 4700 Marketing Management: 3 semester hours**

Prerequisites: MATH 1105, MKTG 3700, three other marketing elective courses, senior standing, and a 2.0 campus GPA. An intensive analysis of major marketing decisions facing the firm, such as level, mix, allocation, and strategy of marketing efforts. Specific decision areas investigated include market determination, pricing, physical distribution, product policy, promotion, channel management, and buyer behavior. Competitive, political, legal, and social factors that may affect such areas of decisions are discussed. Cases, models, and problems are used heavily.

**MKTG 5700 Contemporary Marketing Concepts: 3 semester hours**

Prerequisite: BUS AD 5000. Designed for students with no prior course work in the field of marketing. A wide spectrum of marketing institutions and activities is covered. The impact of marketing on the total firm, the economy, and society in general is assessed. The course is intended to develop and organize the fundamental marketing concepts necessary to an analytical study of consumer behavior, the economic environment and four managerial aspects of marketing. The acquisition and utilization of marketing research data for problem solving is stressed. Relation and integration of basic marketing knowledge to the successful development of sound marketing policy, planning, and strategy is developed.

**MKTG 5701 Marketing Planning And Strategy: 3 semester hours**

Prerequisite: MKTG 5700. Emphasizes the development of a total marketing program through an analytical study of the marketing-mix, the diagnosis of the business situation, along with the influence of exogenous variables and the development of an effective overall marketing strategy. Stresses importance of an integrated marketing plan and utilizes modern decision-making tools. Supplementary readings, journal articles, and current periodicals are used to place the theoretical framework of the course into the contemporary environment of the market place.

**MKTG 5710 Consumer Motivation And Behavior: 3 semester hours**

Prerequisite: MKTG 5700. An analysis of the socio-psychological foundations of consumer behavior including personality differences, needs and wants, status symbols, social change and mobility, fads and fashions. Consumer spending and saving habits, product preferences, leisure-time patterns, shopping behavior and motivation research also are examined for their impact on advertising, selling and marketing management.

**MKTG 5720 Marketing Communications: 3 semester hours**

Prerequisite: MKTG 5700. Deals with managerial decision making by placing particular emphasis on assimilating and integrating all forms of marketing communication in the development of promotional policies, plans and procedures. Course approach is analytical rather than descriptive in investigating the areas of advertising, public relations, sales management, packaging and other forms of demand stimulation.



**MKTG 5730 Clinical Study in Digital and Social Media Marketing: 3 semester hours**

Prerequisites: MKTG 5721 or MKTG 5722 or consent of instructor if prior digital/social media experience. This course, in partnership with Capital Innovators, provides students the opportunity for experiential learning by directly applying classroom topics to the real world. Students will be paired up with a new startup business in their current class and, over the course of the semester, contribute to their digital and social media marketing strategies by assisting in specific project tasks. Other mutually agreed upon areas of responsibility may be assigned as necessary. This is not an internship but rather a project support based clinical course providing very valuable learning in the very vibrant entrepreneurial startup world. It will be instructor led with weekly class meetings.

**MKTG 5731 Special Seminar in Digital and Social Media Marketing: 3 semester hours**

Prerequisites: MKTG5721 or MKTG5722 or consent of instructor if prior digital/social media experience. In this course, the students will be attending three special 2- or 3-day seminars discussing focused topics in Digital and Social Media Marketing. Seminar topics include Mobile Strategy, Email Marketing, Blogs to Buzz, Online Display Advertising, and Strategic Search Engine Marketing. This course may be offered on a weekend schedule.

**MKTG 5740 Marketing And Business Research: 3 semester hours**

Prerequisites: MKTG 5700 and LOG OM 5300. A broad approach to marketing research as a model for acquiring, retrieving, and analyzing decision-making information. Includes market measurement, evaluation of sales and cost effectiveness, sales forecasting and primary marketing research studies aimed at solving specific problems. Emphasis is placed also on building a theoretical and analytical framework to provide flexibility in the design of marketing experiments and in judging recent research innovations.

**MKTG 5761 Business To Business Marketing: 3 semester hours**

The course provides graduate students with an understanding of the role of business to business marketing as it pertains to business, government, and institutional customers. The course places a heavy emphasis on buyer-seller interaction embodying business to business marketing. In addition to discussing the standard theories and covering the subject domain of business marketing, the course focuses on the finer aspects of business to business marketing negotiations using exercises and readings. Student groups enact complex industrial buyer-seller negotiations striving to achieve their respective organizational goals.

**MKTG 5770 Supply Chain Management Strategy: 3 semester hours**

Prerequisite: Consent of instructor. Course addresses supply chain management and its implications, with a focus on what firms can do to maintain competitiveness in the quickly changing business landscape. Topics may include, but are not limited to, value chain analyses, marketing business-to-business, supply chain analytics, procurement, production, logistics, and inventory management within supply chains.

**MKTG 5775 Domestic Transportation: 3 semester hours**

Domestic Transportation is the study of North American transportation modes, their management and operating characteristics. This graduate course is part of the Mid-West Transportation Consortium where UMSL, along with 5 other Universities, provides guest lectures that comment on aspects of transportation. UMSL students concentrate on the business aspects of transportation.

**MKTG 5780 Seminar In International Marketing: 3 semester hours**

Same as INTL BUS 5780. Prerequisite: MKTG 5700 An advanced seminar on topics in international or global marketing. Possible topics include the globalization of trade, export marketing, international market opportunity analysis, and negotiation for international marketers. Students who take one version of this course (e.g., globalization of trade) can take a second version of the course (e.g., negotiation for international marketers) with prior permission.

**MKTG 5790 Internship in Marketing: 3 semester hours**

Prerequisites: Students must have completed and/or be enrolled in at least 6 credit hours of marketing electives and have consent of supervising faculty member and Area Coordinator. Students work in the field of Marketing where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. The student's program will be monitored by a Marketing faculty member with the student providing a formal report at the end of the project.

**MKTG 5795 Seminar In Marketing: 3 semester hours**

Prerequisites: MKTG 5700 This course addresses advanced problems in contemporary marketing. Topics may include, but are not limited to, marketing strategy, marketing communications and advertising, product management, consumer behavior, channels of distribution, international marketing, and marketing research.

**MKTG 5799 Individual Research in Marketing: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in marketing under the guidance of a specific professor.

## Graduate Study

The College of Business Administration offers four graduate degrees: the Doctor of Philosophy in Business Administration (Ph.D.) the Master of Business Administration (MBA), the Master of Science in Information Systems (MS in IS), and the Master of Accounting (MAcc). All programs carry the prestigious accreditation of AACSB-International.

## Admission Requirements

The admissions decision is based on a combination of factors. Consideration is given to a candidate's academic record, scores on the Graduate Management Admissions Test (GMAT), work and leadership experience, a personal narrative on the application form, and recommendations.

As in most AACSB-accredited graduate business programs, the UMSL College of Business generally requires Graduate Management Admissions Test (GMAT) scores. Information on the GMAT exam can be obtained at [www.mba.com](http://www.mba.com). The examination tests one's ability to read, understand, and to reason logically with both verbal and quantitative material. The test is not a measure of achievement or business knowledge. Under certain conditions, the applicant may petition for waiver of the GMAT requirement, based on possession of an advanced degree and/or the ability to supply acceptable scores from an equivalent test.

## Doctor of Philosophy in Business Administration (Ph.D.)

The Ph.D. program includes an emphasis in Logistics & Supply Chain Management (LSCM). This is the only LSCM emphasis in a doctoral business program offered in Missouri. Courses are taught by full-time, nationally known scholars who have been recognized as one of the most



academically prolific faculties in America. The Ph.D. program is designed to prepare scholars who will excel in the national and international marketplace, especially in academic and research organizations, but graduates may also find opportunities in the growing private sector demand for advanced LSCM expertise.

## Master of Accounting Program (MAcc)

The MAcc program prepares students to enter the accounting profession or to further existing accounting careers.

It is designed to accommodate students who have earned an undergraduate degree with an accounting major. Students who have not completed an undergraduate accounting degree must complete the following courses prior to entry into the MAcc program:

ACCTNG 2400	Fundamentals Of Financial Accounting	3
ACCTNG 2410	Managerial Accounting	3
ACCTNG 3401	Financial Accounting And Reporting I	3
ACCTNG 3402	Financial Accounting And Reporting II	3
ACCTNG 3411	Cost Accounting	3
ACCTNG 3421	Accounting Information Systems	3
ACCTNG 3441	Income Taxes	3

These requirements may be waived with appropriate prior coursework. Candidates who have not completed the preparatory courses may apply and be provisionally accepted into the MAcc program, but must complete the courses before registration as a Master of Accounting student can be finalized.

Students must complete a minimum of 30 credit hours while enrolled as a graduate student.

## MAcc Degree Requirements

### Quantitative Methods

All students must complete the following course:

LOG OM 5300	Statistical Analysis For Management Decisions	3
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### Finance Requirement

FINANCE 6500	Financial Management	3
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### Business Breadth

Select four of the following courses:

BUS AD 5100	Managerial Communication	
BUS AD 5900	Law, Ethics And Business	
BUS AD 6990	Strategy Formulation And Implementation	
INFSYS 5800	Management Information Systems	
LOG OM 5320	Production And Operations Management	
MGMT 5600	Managing People in Organizations	
MKTG 5700	Contemporary Marketing Concepts	

### Accounting Course Requirements

Students must complete the following three courses:

ACCTNG 4401	Financial Accounting And Reporting III	3
ACCTNG 4402	Financial Accounting And Reporting IV	3
ACCTNG 4435	Auditing	3

### Research Course

Select one of the following:

ACCTNG 5402	Professional Accounting Research	3
or ACCTNG 5406	Research and Professional Writing in Accounting	

or ACCTNG 5441 Tax Research

### Graduate Topics

Select one of the following:

ACCTNG 5403	Graduate Topics in Financial Accounting	3
or ACCTNG 5412	Graduate Topics in Management Accounting: Controllership	
or ACCTNG 5435	Graduate Topics in Auditing	
or ACCTNG 6441	Graduate Topics in Taxation	

### Electives

Students must complete 15 hours of electives including at least six hours of Accounting courses.

### Accounting Electives

Select at least two of the following (Not all courses are offered each year):

ACCTNG 5402	Professional Accounting Research
ACCTNG 5403	Graduate Topics in Financial Accounting
ACCTNG 5406	Research and Professional Writing in Accounting
ACCTNG 5408	Fraud Examination
ACCTNG 5412	Graduate Topics in Management Accounting: Controllership
ACCTNG 5435	Graduate Topics in Auditing
ACCTNG 5436	Systems Auditing
ACCTNG 5441	Tax Research
ACCTNG 5446	Advanced Topics in Taxation
ACCTNG 5451	Accounting and Auditing in Governmental and Not-for-Profit Entities
ACCTNG 5480	International Accounting
ACCTNG 5490	Graduate Internship in Accounting
ACCTNG 5491	Contemporary Issues In Accountancy
ACCTNG 5498	Graduate Seminar in Accounting
ACCTNG 6441	Graduate Topics in Taxation

### Non-Accounting Courses

Students may complete up to 9 hours from other business disciplines (maximum: 9 credit hours at the graduate level)

Any BUS AD 5000 and above
Any FINANCE 6500 and above
Any INFSYS 5800 and above
Any LOG OM 5300 and above
Any MGMT 5600 and above
Any MKTG 5700 and above

Total Hours 48

## Master of Business Administration Program (MBA)

The MBA is available in three formats: the FlexMBA (formerly evening MBA), the Professional MBA (an accelerated Internet-enhanced weekend program), and the International MBA program. All programs are fully accredited by AACSB International – The Association to Advance Collegiate Schools of Business, the premier accrediting body in collegiate business education. The MBA programs are designed to prepare students for administrative and professional positions. They also provide an appropriate foundation for students contemplating doctoral work and eventual careers in college teaching and research. The programs admit students with bachelor's degrees from accredited institutions, including

those with undergraduate backgrounds in the sciences, engineering, humanities, or arts as well as business. Graduate Business program information is available at the College of Business Administration website.

## The FlexMBA Program

The FlexMBA curriculum familiarizes participants with the fundamental areas of business administration. The core program is designed to generate a working knowledge of the concepts and interrelationships of four broad categories fundamental to management training:

- The external environment confronting business organizations and management's response to legal, economic, social, and political issues.
- The internal operation of various business organizations and management's role in channeling human behavior to satisfy both personal and organizational goals.
- Basic concepts, terminology, and interaction of the accounting, marketing, finance, information systems and operations management disciplines.
- Quantitative management decision-making models put to use in the context of current management principles.

Business concepts are integrated by a course in strategy formulation and implementation in the final semester of study. There is no thesis requirement; however, students interested in undertaking an individual research project may earn elective credit by enrolling in a supervised independent study course.

## Degree Requirements

Depending on the student's previous background, programs will range from 39 to 54 hours. Coursework must be completed within a six--year period. At least 30 hours of coursework must be taken while enrolled as an MBA candidate at UMSL.

## Learning Outcomes

- Develop the ability to write and deliver a professional presentation.
- Develop the ability to form teams and work in teams.
- Understand ethical considerations in all dimensions of business.
- Be aware of international issues in business.
- Have the ability to critically evaluate information.
- Be able to independently research a topic in business.
- Develop skill in using technology to solve business problems.
- Understand basic management principles and practices and how they affect the success of an organization.
- Understand basic finance principles and practices and how they affect the success of an organization.
- Understand basic accounting principles and practices and how they affect the success of an organization.
- Understand basic operations and logistics management principles and practices and how they affect the success of an organization.
- Understand basic marketing principles and practices and how they affect the success of an organization.
- Understand basic information systems principles and practices and how they affect the success of an organization.
- Develop skill to think strategically about the business.

Candidates must take at least one course from either the core or elective sections in each of the following six areas: accounting, finance, management, marketing, information systems, and logistics and

operations management. Also, no more than 15 credits may be taken in any one of the six areas.

## Prerequisites

All students must demonstrate quantitative skills and knowledge of micro- and macroeconomics. Students are required to have waived or completed the equivalent of ECON 4105 Quantitative Methods and Modeling in Economics, Business, and the Social Sciences and BUS AD 5000 Economics For Managers.

## Required Courses

The following courses or their equivalents are required of all degree candidates.

### Foundations

BUS AD 5100	Managerial Communication	3
LOG OM 5300	Statistical Analysis For Management Decisions	3
BUS AD 5900	Law, Ethics And Business	3

### Business Core

ACCTNG 5400	Financial And Managerial Accounting	3
FINANCE 6500	Financial Management	3
MGMT 5600	Managing People in Organizations	3
MKTG 5700	Contemporary Marketing Concepts	3
INFSYS 5800	Management Information Systems	3
LOG OM 5320	Production And Operations Management	3

## Advanced Topics and Electives

MBA candidates must take at least one course in each functional area, if waived in the Business Core section, and a second-level course in three of the six functional areas. If ACCTNG 5400 is waived, the student must complete ACCTNG 5401. Students can take no more than a total of 15 credits in any functional area. The student must take a minimum of nine credits of elective courses. A maximum of six credits of electives may be taken at the undergraduate level. Nine elective credits may be taken outside the College of Business Administration if the student has approval in advance from a graduate adviser for the specific courses desired.

## Business Capstone (BA 6990)

BUS AD 6990	Strategy Formulation And Implementation	3
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This capstone course examines concepts and methods that integrate the functional areas of business. This course should be taken during the semester just prior to graduation. In no case may it be taken sooner than two semesters prior to graduation.

## Previous Education

Based on a formal review and evaluation by the Graduate Business Programs Office, students may be granted waivers of certain courses from the degree requirements. Waivers depend on the applicability of, and performance in, prior coursework. Regardless of the number of courses waived, all students must complete at least 39 credits to earn the MBA degree.

Candidates must take at least one course at either the core level or from the business breadth requirements list in each of the following six areas: accounting, finance, management, marketing, information systems, and logistics and operations management. Also, no more than 15 credit hours may be taken in any one of the six areas. Students are also required to have completed the equivalent of ECON 4105 (p. 282), Quantitative

Methods and Modeling in Economics, Business, and the Social Sciences, by the end of their first 15 hours in the program.

## Required Courses

The following courses or their equivalents are required of all degree candidates.

### General Requirements

ECON 4105 (p. 282)	Quantitative Mth & Modeling In Econ, Business & Social Sciences	3
BUS AD 5000 (p. 282)	Economics For Managers	3
BUS AD 5100 (p. 282)	Managerial Communication	3
BUS AD 6990 (p. 282)	Strategy Formulation And Implementation	3
LOG OM 5300 (p. 282)	Statistical Analysis For Management Decisions	3
BUS AD 5900 (p. 282)	Law, Ethics And Business	3

### Core Requirements

ACCTNG 5400 (p. 282)	Financial And Managerial Accounting	3
FINANCE 6500 (p. 282)	Financial Management	3
MGMT 5600 (p. 282)	Organizational Behavior And Administrative Processes	3
MKTG 5700 (p. 282)	Contemporary Marketing Concepts	3
INFSYS 5800 (p. 282)	Management Information Systems	3
LOG OM 5320 (p. 282)	Production And Operations Management	3

## Business Breadth Requirements - 9 hours

A student must take a second-level course in three of the following areas:

- Accounting: ACCTNG 5401 (p. 282), Financial Reporting and Analysis
- Finance: Any approved graduate-level course beyond FINANCE 6500 (p. 282)
- Management: Any approved graduate-level course beyond MGMT 5600 ([https://nextbulletin.umsl.edu/courseleaf/js/fckeditor/editor/fckeditor.html?InstanceName=attr\\_businessadministrationtext&Toolbar=PageWizard](https://nextbulletin.umsl.edu/courseleaf/js/fckeditor/editor/fckeditor.html?InstanceName=attr_businessadministrationtext&Toolbar=PageWizard))
- Marketing: Any approved graduate-level course beyond MKTG 5700 ([https://nextbulletin.umsl.edu/courseleaf/js/fckeditor/editor/fckeditor.html?InstanceName=attr\\_businessadministrationtext&Toolbar=PageWizard](https://nextbulletin.umsl.edu/courseleaf/js/fckeditor/editor/fckeditor.html?InstanceName=attr_businessadministrationtext&Toolbar=PageWizard))
- Information Systems: Any approved graduate-level course beyond INFSYS 5800 ([https://nextbulletin.umsl.edu/courseleaf/js/fckeditor/editor/fckeditor.html?InstanceName=attr\\_businessadministrationtext&Toolbar=PageWizard](https://nextbulletin.umsl.edu/courseleaf/js/fckeditor/editor/fckeditor.html?InstanceName=attr_businessadministrationtext&Toolbar=PageWizard))
- Logistics and Operations Management: Any approved graduate-level course beyond LOG OM 5320 (p. 282)

## Electives

The student must take a minimum of nine hours of elective courses. A maximum of six hours of electives may be taken at the undergraduate level. Graduate students may be required to complete additional work in these courses. Nine elective hours may be taken outside the College of Business Administration if the student has approval in advance from a graduate adviser for the specific courses desired.

## Emphasis Areas

MBA students may obtain emphasis areas in Accounting, Finance, Information Systems, International Business, Logistics and Supply Chain Management, Management, Marketing or Operations Management. In addition to the requirements articulated above, the requirements for each emphasis area are shown below.

### Emphasis in Accounting

MBA students seeking an emphasis in Accounting must complete a minimum of 12 hours of accounting electives. Of these electives, six hours must be numbered ACCTNG 5401 (p. 282) or above, and six hours must be numbered ACCTNG 4400 or above. ACCTNG 5400 (p. 282) does not count toward the Emphasis in Accounting. A maximum of 15 hours in any functional area will count toward degree requirements. Only courses that are substantially different from courses taken for credit in a student's undergraduate program will be acceptable. The total number of elective courses required will depend on the number of hours waived. Students must complete at least 39 credit hours to earn the MBA.

### Emphasis in Finance

MBA students seeking an emphasis in Finance must complete a minimum of 12 hours of Finance electives beyond FINANCE 6500 (p. 282). A maximum of 15 hours in any functional area will count toward the degree requirements. One Finance course may apply toward the business breadth requirement, and the remainder toward the elective requirement. The total number of elective courses required will depend on the number of hours waived. Students must complete at least 39 credit hours to earn the MBA degree.

## Emphasis in Information Systems

Required Course: 3

INFSYS 5800 Management Information Systems  
(p. 282)

Select four of the following: 12

INFSYS 6805 Applications Of Programming For Business  
(p. 282) Solutions

INFSYS 6835 IT-Enabled Business  
(p. 282)

INFSYS 6836 Telecommunications: Design And Management  
(p. 282)

INFSYS 6837 Information Systems Architecture  
(p. 282)

INFSYS 6838 Business Processes: Design, Management &  
(p. 282) Integration

INFSYS 6840 Information Systems Analysis  
(p. 282)

INFSYS 6845 Database Management Systems  
(p. 282)

INFSYS 6846 Management Of Global Sourcing  
(p. 282)

INFSYS 6847	Financial And Project Management	(p. 282)
INFSYS 6848	Knowledge Management And Business Intelligence	(p. 282)
INFSYS 6850	Information Systems Design	(p. 282)
INFSYS 6881	Management Of Transnational Information Systems	(p. 282)
INFSYS 6891	Seminar In Management Information Systems	(p. 282)

**Guided Internship**

A maximum of 1 course outside IS (Courses outside the College of Business must be approved by the IS department chairperson)

**Emphasis in International Business**

MBA students seeking an emphasis in International Business (IB) must complete a minimum of 12 hours by completing four courses from among the following list:

ACCTNG 5480	International Accounting	3
(p. 282)		
FINANCE 6580	International Financial Management	3
(p. 282)		
FINANCE 6590	Seminar In Finance	3
(p. 282)		
FINANCE 6581	Seminar In International Investments	3
(p. 282)		
INFSYS 6846 (p.	Management Of Global Sourcing	3
282)		
INFSYS 6881 (p.	Management Of Transnational Information Systems	3
282)		
LOG OM 5381 (p.	International Logistics And Operations	3
282)	Management	
INTL BUS 5289	International Business Strategies	3
(p. 282)		
MGMT 5695 (p.	Seminar In Management	3
282)		
MKTG 5780 (p.	Seminar In International Marketing	3
282)		
MKTG 5795 (p.	Seminar In Marketing	3
282)		
BUS AD 5299 (p.	Individual Research	1-3
282)		

In addition to the above list, courses approved by the director of the International Business Institute will count towards the IB concentration. A maximum of 15 hours in any functional area will count toward the degree requirements. The total number of elective courses required will depend on the number of hours waived. Students must complete at least 39 hours credit hours to earn the MBA degree.

**Emphasis in Logistics and Supply Chain Management**

MBA students seeking an emphasis in Logistics & Supply Chain Management must complete 9 hours from approved courses in addition to LOG OM 5300 (p. 282) and LOG OM 5320 (p. 282). Up to 3 hours may be transferred from another AACSB-accredited graduate program at the discretion of the chairperson of the LOM Department. A maximum of

15 hours in any functional area will count toward the degree requirements. The total number of elective hours required will depend on the number of hours waived. Students must complete at least 39 credit hours to earn the MBA degree.

**Emphasis in Management**

MBA students seeking an Emphasis in Management may choose one of the tracks specified below. Regardless of the track chosen, one must complete a minimum of 12 hours of Management electives beyond MGMT 5600. A maximum of 15 hours in any functional area will count toward the degree requirements. The total number of elective courses required will depend on the number of hours waived. Students must take at least 39 credit hours to earn the MBA degree.

**General Management Track**

Any 4 MGMT courses.

**Human Resource Management Track**

MGMT 5621	Managing Human Resources	3
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3 courses selected from:

MGMT 5622	Union-Management Relations And Collective Bargaining
MGMT 5624	Organizational Training <sup>1</sup>
MGMT 5625	Selected Topics In Human Resource Management

<sup>1</sup> This course will not be offered in 2014-2015. Please contact the department for more information.

**Emphasis in Marketing**

MBA students seeking an emphasis in Marketing must complete a minimum of 12 hours of Marketing electives beyond MKTG 5700 (p. 282), including MKTG 5701 (p. 282). A maximum of 15 hours in any functional area will count toward the degree requirements. The total number of elective courses required will depend on the number of hour waived. Students must complete at least 39 hours credit hours to earn the MBA degree.

**Emphasis in Operations Management**

MBA students seeking an emphasis in Operations Management must complete 9 hours from approved courses in addition to LOG OM 5300 (p. 282) and LOG OM 5320 (p. 282). Up to 3 hours may be transferred from another AACSB-accredited graduate program at the discretion of the department chairperson. A maximum of 15 hours in any functional area will count toward the degree requirements. The total number of elective hours required will depend on the number of hours waived. Students must complete at least 39 credit hours to earn the MBA degree.

A student cannot receive an emphasis in both Operations Management and Logistics & Supply Chain Management for the same set of courses. An overlap of up to 3 credit hours out of the 9 hours required is allowed.

**Professional MBA Program**

A weekend-based Internet-enhanced version of the MBA program exists as an alternative to the traditional part-time evening program. This program is a 48-credit-hour program for professionals with busy work or travel schedules. Students meet on campus monthly, with the remainder of the interaction between instructor and students taking place online. Students proceed through the program as part of a cohort group and complete the requirements for the degree in two years.



The first 30 hours of the Internet-based program consist of the same core courses required in the evening program (except for the mathematics and economics requirements, which are treated as prerequisites and must be satisfied prior to starting the program). The remaining 18 hours consist of the following courses:

ACCTNG 5401 (p. 282)	Financial Reporting And Analysis	3
FINANCE 6590 (p. 282)	Seminar In Finance	3
MGMT 5695 (p. 282)	Seminar In Management	3
MKTG 5795 (p. 282)	Seminar In Marketing	3
INFSYS 6891 (p. 282)	Seminar In Management Information Systems	3
LOG OM 6395 (p. 282)	Seminar In Logistics And Operations Management	3

## International MBA Program

An International version of the MBA program also exists as an alternative to the evening MBA program. This program is a two-year, full-time program. Students take courses the first year outside the U.S. at a partner university and then take courses the second year on the University of Missouri–St. Louis campus.

## International MBA Program Degree Requirements

In addition to the requirements of the evening MBA program, the International MBA program requires an internship (outside the U.S. for Americans and in the U.S. for all others). The program also requires a proficiency in at least one major commercial language in addition to English as a prerequisite. (Coursework is generally in English). All participants in the International MBA program must meet the same general and core requirements as those in the Evening MBA program.

## Master of Science in Information Systems (MS in IS)

The Master of Science in IS program is designed to provide the technical and managerial knowledge to operate successfully in careers associated with the design, development and management of computer-based information, telecommunications, and Internet applications. The program accommodates students with undergraduate degrees specializing in IS, business, and computer science, as well as students with undergraduate degrees outside business.

## MS in IS Program Degree Requirements

The program may require as few as 30 hours for students with undergraduate business degrees from AACSB-accredited institutions. Because of the need to attain general business core competencies as a foundation of the MS in IS requirements, students with no academic business background will be required to take additional hours as outlined below.

## General Requirements

All students must meet course requirements in quantitative reasoning, general business and IS. Students must complete a minimum of 30 credit hours beyond the general business core. Of the 30 hours beyond

the general business core, at least 24 hours must cover topics beyond INFSYS 5800 and INFSYS 6805. Students with a B.S.B.A. with an emphasis in IS or a B.S. in IS from an AACSB-accredited institution may, at the student's discretion, substitute two electives for INFSYS 5800 and INFSYS 6805. Waivers may be granted for other courses with appropriate undergraduate course work.

## Quantitative Reasoning Requirement

Students are required to have completed by the end of their first semester in the program the equivalent of ECON 4105, Quantitative Methods and Modeling in Economics, Business and the Social Sciences with a grade of C or better. Students are also required to complete the equivalent of LOG OM 5300 Statistical Analysis for Management Decisions with a grade of C or better. These courses do not count towards the graduate degree, but waivers may be granted with appropriate undergraduate course work.

## General Business Core

Students must have a B.S. in IS, or a B.S.B.A. with an emphasis in MIS that requires a managerial communication course, and coursework equivalent to at least five of the following courses:

BUS AD 5900	Law, Ethics And Business	3
ACCTNG 5400	Financial And Managerial Accounting	3
FINANCE 6500	Financial Management	3
MGMT 5600	Organizational Behavior And Administrative Processes	3
MKTG 5700	Contemporary Marketing Concepts	3
LOG OM 5320	Production And Operations Management	3
BUS AD 6990	Strategy Formulation And Implementation	3

Students who have not met this prerequisite must complete BUS AD 5100 Managerial Communication and course work from at least five of the courses listed above.

## Program Requirements

### A. Basic IS courses

INFSYS 5800	Management Information Systems	3
INFSYS 6805	Applications Of Programming For Business Solutions	3
INFSYS 6840	Information Systems Analysis	3
INFSYS 6845	Database Management Systems	3
INFSYS 6850	Information Systems Design	3
Select five of the following:		15
INFSYS 6808	Internet Programming For Business	3
INFSYS 6835	IT-Enabled Business	3
INFSYS 6836	Telecommunications: Design And Management	3
INFSYS 6837	Information Systems Architecture	3
INFSYS 6838	Business Processes: Design, Management & Integration	3
INFSYS 6846	Management Of Global Sourcing	3
INFSYS 6847	Financial And Project Management	3
INFSYS 6848	Knowledge Management And Business Intelligence	3
INFSYS 6881	Management Of Transnational Information Systems	3
INFSYS 6891	Seminar In Management Information Systems	3

A maximum of 2 courses outside IS. Courses outside the College of Business must be approved by the IS department chairperson.

## Ph.D. in Business Administration

### Admissions Requirements

Admission decisions are made on the basis of past academic record, intellectual ability, GMAT or GRE scores, and career commitment. Applications are accepted from students who have baccalaureate or graduate degrees. Past graduate work may be credited toward degree requirements where appropriate. Applicants must submit:

- Official academic transcripts
- Official GMAT or GRE results in fields approved by the College of Business Administration.
- Three letters of recommendation (at least two from individuals with earned doctorates).
- A statement of objectives for the course of study.

### Graduate Assistantships

Stipends for research and teaching assistantships (20 hours per week) are awarded on a competitive basis. Educational fees are waived for graduate assistants.

### Degree Requirements

The Ph.D. in the College of Business Administration requires a minimum of 69 course credit hours and a minimum of 6 dissertation credit hours beyond the baccalaureate degree. To ensure sufficient background for doctoral-level courses, students must demonstrate appropriate competence in quantitative reasoning, which is evidenced through completion of ECON 4105 and BUS AD 5000 or their equivalent. Students must also demonstrate appropriate competence in managerial communication, which is evident through completion of BUS AD 5100 or equivalent to be determined by the Ph.D. Coordinator.

### Course Requirements

The Ph.D. in Business Administration has a common set of requirements in three areas: Business & Research Foundation (Section I), Supporting Field (Section II), and Other Requirements (Section IV). Requirements specific to the area of emphasis are in Section III.

#### I. Business & Research Foundation Requirement: 27 credit hours (9 courses)

Students are required to take:<sup>1</sup>

INFSYS 5800	Management Information Systems	3
LOG OM 5300	Statistical Analysis For Management Decisions	3
BUS AD 5900	Law, Ethics And Business	3
ACCTNG 5400	Financial And Managerial Accounting	3
FINANCE 6500	Financial Management	3
MGMT 5600	Managing People in Organizations	3
MKTG 5700	Contemporary Marketing Concepts	3
LOG OM 5320	Production And Operations Management	3
BUS AD 7300	Statistical Modeling	3
Total Hours		27

<sup>1</sup> The first eight courses INFSYS 5800, LOG OM 5300, BUS AD 5900, ACCTNG 5400, FINANCE 6500, MGMT 5600, MKTG 5700, LOG OM 5320 will normally be waived if students had the courses as part of an UMSL MBA, MS in IS, or MAcc degree, or had equivalent graduate course work at an institution approved by the Graduate Business Programs Office and the Ph.D. Coordinator.

#### II. Supporting Field Requirement (9 credit hours)

Students must take 9 credit hours of graduate-level courses beyond foundation course work in a supporting field approved by the Ph.D. Coordinator. Supporting fields may include courses within or outside the College of Business Administration and are designed in consultation with the Ph.D. Coordinator.

#### III. Emphasis Area Requirements

##### Logistics & Supply Chain Management (LSCM) Emphasis

The Logistics & Supply Chain Management emphasis requirement includes 33 credit hours.

Students are required to take the following six courses:

LOG OM 6330	Business Logistics Systems	3
LOG OM 6350	Management Science Methods	3
LOG OM 7381	International Supply Chain Management	3
LOG OM 7390	Research Seminar In LSCM	3
LOG OM 7393	Special Topics In LSCM	3
MKTG 5770	Supply Chain Management Strategy	3

And select at least one of the following:

LOG OM 6331	Logistics And Supply Chain Operational Modeling	
LOG OM 6332	Logistics And Supply Chain Strategic Modeling	

Students are required to take 12 credit hours (four courses) (not included elsewhere) from the list of approved elective courses for the LSCM emphasis.

Total Hours	33
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#### IV. Other Requirements

- Upon completion of coursework, students are advanced to candidacy by successfully completing a comprehensive examination in their area of emphasis and a supporting field examination in their chosen area. Students admitted to the program with a relevant master's degree should pass the comprehensive examination and the supporting field examination within three years of admission to the Ph.D. program. Students admitted to the program with an undergraduate business degree should pass the comprehensive examination and the supporting field examination within four years of admission to the Ph.D. program. Students admitted to the program with an undergraduate degree outside of business should pass the comprehensive examination and the supporting field examination within five years of admission to the Ph.D. program. In these cases, prior coursework will be evaluated for equivalency to Section I course requirements. Exceptions may be made, contingent on approval by the Ph.D. Coordinator.
- Students will be evaluated annually for satisfactory progress. Students deemed not to be making adequate progress are subject to the policies of the College of Business Administration regarding continuation of their assistantship. Students deemed not to be making adequate progress are subject to the policies of the Graduate School and the College of

Business Administration regarding probation and dismissal from the program.

- Students are required to take a minimum of 6 dissertation credit hours and to defend a dissertation proposal within one year of advancement to candidacy.
- The following requirements are to be completed before or after admission to candidacy:
  - Students are required to present one paper at a regional, national, or international conference.
  - Students are required to submit one paper, approved by his/her dissertation advisor, to a refereed journal.
- At least two semesters of supervised teaching in the College of Business Administration are required of all doctoral students.
- Students are required to demonstrate competency in teaching during the first year in which they teach in the College of Business Administration. This requirement may be met by successfully completing one or more courses.
- The degree is awarded upon successful completion and defense of the Ph.D. dissertation and satisfaction of all Graduate School requirements. The dissertation must be defended within three years of approval of a Ph.D. dissertation proposal.

## Graduate Certificate Programs in Business Studies

The College of Business Administration offers five 18-hour graduate certificates. To be admitted to a graduate certificate program, students must meet the same requirements as those needed for a graduate degree program in business (see Admission Requirements in the Graduate Studies in Business Administration section of this Bulletin).

Certificate programs allow qualified graduate students to pursue an intensive course of study in a specialized business topic without requiring completion of a full graduate business degree program. Certificate programs provide students with the opportunity to obtain the advanced knowledge available through a graduate course of study in a relatively brief period.

In order to successfully complete a certificate program, students must earn a 3.0 cumulative GPA in certificate classes. Unless otherwise specified, the coursework must be completed within six years. Students must also comply with all requirements related to matters such as prerequisites, academic probation, and other graduate business program policies.

## Graduate Certificate Program in Business Administration

This is an 18-hour program designed to accommodate individuals with an undergraduate/graduate degree in a non-business field seeking core business knowledge. The program emphasizes coursework designed to cover the major disciplines within the field of business. Upon completion, the student will have knowledge of common business theories, practices, and procedures.

To earn the certificate, students must complete six courses as prescribed below. All course prerequisites and all course waivers are applicable. Substitute courses may be approved by the appropriate department chairperson and the director of Graduate Studies in Business. In all cases, 18 hours are needed to complete the graduate certificate.

### Program Requirements

ACCTNG 5400 (p. 282)	Financial And Managerial Accounting	3
MGMT 5600 (p. 282)	Organizational Behavior And Administrative Processes	3
MKTG 5700 (p. 282)	Contemporary Marketing Concepts	3
INFSYS 5800 (p. 282)	Management Information Systems	3
Select one of the following:		3
FINANCE 6500 (p. 282)	Financial Management	
LOG OM 5320 (p. 282)	Production And Operations Management	
<b>Elective Course</b>		3
Select one of the following:		
BUS AD 5100 (p. 282)	Managerial Communication	
BUS AD 5900 (p. 282)	Law, Ethics And Business	
FINANCE 6500 (p. 282)	Financial Management <sup>1</sup>	
LOG OM 5320 (p. 282)	Production And Operations Management <sup>1</sup>	
Total Hours		18

## Graduate Certificate in Digital and Social Media Marketing

(pending CBHE approval)

The Graduate Certificate in Digital and Social Media Marketing is an **18-hour** program designed to provide a focused, intensive study of the applications of digital and social media marketing management within organizations. This program serves marketing managers wanting to understand a true integrated marketing approach to sales, brand management, promotion, and consumer behavior.

To obtain the certificate, students must complete the following 4 "foundation" marketing courses, the "research and analytics" course and the "special seminar" course for a total of 18 credits:

### Marketing Foundation Courses:

MKTG 5700	Contemporary Marketing Concepts	3
MKTG 5721	Digital Marketing Strategies and Measurement	
MKTG 5722	Social Media Marketing Strategy	
MKTG 5730	Clinical Study in Digital and Social Media Marketing	3
<b>Research and Analytics Course:</b>		
MKTG 5710	Consumer Motivation And Behavior	3
<b>Seminar Course:</b>		
MKTG 5731	Special Seminars in Digital and Social Media Marketing	3
Total Hours		12

## Graduate Certificate in Business Intelligence

A certificate program in Business Intelligence. This program consists of a six-course sequence, comprising four required courses and two elective courses. Elective courses may be taken in either of two sub-tracks: Business Analytics or Systems Development. The list of courses is as follows:

### Required Courses (12 hours)

INFSYS 6833 (p. 282)	Decision Support Systems for Business Intelligence	3
INFSYS 6849 (p. 282)	Data Warehouse Design and Implementation	3
INFSYS 6851 (p. 282)	Practicum in Business Intelligence	3
LOG OM 6345 (p. 282)	Business Analytics and Data Mining	3

### Electives (any two from either sub-track) 6

#### Analytics sub-track:

ACCTNG 5400 (p. 282)	Financial And Managerial Accounting	
ACCTNG 5401 (p. 282)	Financial Reporting And Analysis	
BUS AD 7300 (p. 282)	Statistical Modeling	
FINANCE 6521 (p. 282)	Financial Forensics: The Science of Derivatives	
FINANCE 6580 (p. 282)	International Financial Management	
LOG OM 5312 (p. 282)	Advanced Statistical Methods For Management Decisions	
LOG OM 5320 (p. 282)	Production And Operations Management	
LOG OM 5322 (p. 282)	Lean Production	
LOG OM 5354 (p. 282)	Simulation For Managerial Decision Making	
LOG OM 6330 (p. 282)	Business Logistics Systems	
LOG OM 6331 (p. 282)	Logistics And Supply Chain Operational Modeling	
LOG OM 6332 (p. 282)	Logistics And Supply Chain Strategic Modeling	
LOG OM 6350 (p. 282)	Management Science Methods	
MGMT 5625 (p. 282)	Selected Topics In Human Resource Management	
MKTG 5740 (p. 282)	Marketing And Business Research	

#### Systems Development sub-track

INFSYS 6808 (p. 282)	Internet Programming For Business	
INFSYS 6837 (p. 282)	Information Systems Architecture	
INFSYS 6838 (p. 282)	Business Processes: Design, Management & Integration	

INFSYS 6840 Information Systems Analysis (p. 282)

INFSYS 6847 Financial And Project Management (p. 282)

INFSYS 6850 Information Systems Design (p. 282)

## Graduate Certificate in Human Resources Management

The Graduate Certificate in Human Resources Management is an 18-hour course of study designed to focus on the multidimensional aspects of personnel operations within business organizations. The course of study emphasizes both formal and informal aspects of human resources management.

### Requirements

Students must complete the following six courses or appropriate substitutes if course waivers are appropriate:

MGMT 5600	Managing People in Organizations	3
MGMT 5621	Managing Human Resources	3
MGMT 5622	Union-Management Relations And Collective Bargaining	3
MGMT 5623	Compensation and Benefits <sup>1</sup>	
MGMT 5625	Selected Topics In Human Resource Management	3
Total Hours		12

MGMT 5600, MGMT 5621 and LOG OM 5300 may be waived with equivalent undergraduate courses. If a student is able to waive any or all of these three courses, substitute courses (approved by both the chairperson of the Management and the director of Graduate Studies in Business) will be provided. Substitute courses may include MGMT 5611, Advanced Organizational Behavior and Administrative Processes, or a course from outside the College of Business Administration. In all cases, 18 hours are needed to complete the Graduate Certificate in Human Resources Management.

<sup>1</sup> This course will not be offered in 2014-2015. Please contact the department for more information.

## Graduate Certificate in Logistics and Supply Chain Management

The Graduate Certificate in Logistics and Supply Chain Management is an 18-hour program designed to provide a focused, intensive study of important issues within logistics and, more broadly, in supply chain management. Three required courses provide thorough background in operations, logistics and supply chain management. Three elective courses allow specialization in areas such as logistics and supply chain software, international logistics, operations research, e-commerce, and quality. Students must complete the following six courses or approved substitutes if course waivers are appropriate:

### Required Courses:

LOG OM 5320	Production And Operations Management	3
LOG OM 6330	Business Logistics Systems	3
MKTG 5770	Supply Chain Management Strategy	3

**Nine additional hours (generally 3 courses) from:** <sup>1</sup> 9



LOG OM 5301	Introduction To Geographic Information Systems	
LOG OM 5312	Advanced Statistical Methods For Management Decisions	
LOG OM 5322	Lean Production	
LOG OM 5324	Service Operations Management	
LOG OM 5326	Quality Management	
LOG OM 5333	Topics In Logistics And Supply Chain Management	
LOG OM 5354	Simulation For Managerial Decision Making	
LOG OM 5381	International Logistics And Operations Management	
LOG OM 5399	Individual Research in Logistics and Operations Management	
LOG OM 6331	Logistics And Supply Chain Operational Modeling	
LOG OM 6332	Logistics And Supply Chain Strategic Modeling	
LOG OM 6350	Management Science Methods	
LOG OM 6354	Advanced Operations Research Topics	
LOG OM 6360	Advanced Logistics And Operations Management Applications	
LOG OM 6395	Seminar In Logistics And Operations Management	
MKTG 5775	Domestic Transportation	
BUS AD 5198	Seminar In Business Administration (only with consent of the LOM Coordinator)	
INFSYS 6833	Decision Support Systems for Business Intelligence	
INFSYS 6835	IT-Enabled Business	
INFSYS 6847	Project Management	
Total Hours		18

- <sup>1</sup> At least 3 of the 9 elective hours for the certificate shall be from among the following courses: LOG OM 5301, LOG OM 5312, LOG OM 5322, LOG OM 5324, LOG OM 5326, LOG OM 5333, LOG OM 5354, LOG OM 5381, LOG OM 5399, LOG OM 6331, LOG OM 6332, LOG OM 6350, LOG OM 6354, LOG OM 6360, LOG OM 6395.

Substitute courses must be approved by the chairperson of the LOM Department and the director of Graduate Studies in Business. In all cases, 18 hours are needed to complete the Graduate Certificate in Logistics and Supply Chain Management.

## Graduate Certificate in Marketing Management

The Graduate Certificate in Marketing Management is an 18#hour program designed to provide a focused intensive study of the marketing management activity within organizations. This program is designed to serve a broad group of marketing managers, including those with an interest in sales, brand management, promotion, and consumer behavior.

### Requirements

Students must complete the following six courses or appropriate substitutes if course waivers are appropriate:

MKTG 5700	Contemporary Marketing Concepts	3
MKTG 5710	Consumer Motivation And Behavior	3
MKTG 5740	Marketing And Business Research	3
<b>Marketing Management:</b>		
MKTG 5701	Marketing Planning And Strategy	3

MKTG 5720	Marketing Communications	3
MKTG 5730	Clinical Study in Digital and Social Media Marketing	3
Total Hours		18

All course prerequisites and all course waivers are applicable. The Marketing department chairperson and the director of Graduate Studies in Business must approve substitute courses. In all cases, 18 hours (including at least 12 hours in Marketing) are needed to complete the certificate.

## Accounting Courses

### **ACCTNG 2400 Fundamentals Of Financial Accounting: 3 semester hours**

Prerequisites: MATH 1030 and completion of 27 credit hours. MATH 1030 may be taken concurrently. This is a one semester course in financial accounting theory and practice. The primary emphasis is on the corporate financial statements of income, financial position and cash flow-their content and interpretation; and the impact of financial transactions upon them.

### **ACCTNG 2410 Managerial Accounting: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 2400. This is an advanced course that goes beyond the scope of a second-semester course in fundamentals of accounting. The development, interpretation, and use of relevant cost behavior, control, and traceability concepts for management planning, controlling and decision making are emphasized. Topics include: an introduction to product costing, the contribution concept, direct costing, performance standards and variance analysis, responsibility accounting, segment profitability, alternative choice decisions, and capital budgeting.

### **ACCTNG 3401 Financial Accounting And Reporting I: 3 semester hours**

Prerequisites: A minimum 2.0 campus GPA, MATH 1030, ACCTNG 2410, and 57 credit hours Review of the foundations of financial accounting theory and of the financial statement preparation process. Accounting theory and practice related to current assets (except for investments in securities). The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

### **ACCTNG 3402 Financial Accounting And Reporting II: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as investments in securities, operational assets, current and long-term liabilities, and leases. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

### **ACCTNG 3411 Cost Accounting: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. The study of the basic principles of cost determination for, and control of, manufacturing and distribution activities. Topics include job-order costing, process costing, cost allocations, and the development and use of standard costs within a system of absorption costing.

**ACCTNG 3421 Accounting Information Systems: 3 semester hours**

Prerequisites: Minimum campus GPA of 2.0. In addition, MATH 1030, INFSYS 1800, ACCTNG 2410, and ACCTNG 3401. Examines the fundamentals of accounting information systems, including hardware and software considerations, internal controls, and transaction processing cycles. Also focuses upon the development of efficient spreadsheets as applied to financial and managerial accounting concepts.

**ACCTNG 3441 Income Taxes: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Fundamentals of Federal income taxation. Topics include taxable entities, income, deductions, tax accounting methods, tax basis, and property transactions at both the conceptual and operational levels.

**ACCTNG 3445 I.R.S. Procedures and Federal Taxation of Estates, Gifts and Trusts: 3 semester hours**

Prerequisites: MATH 1030 and either ACCTNG 3401 or FINANCE 3560; also a minimum campus GPA of 2.2 in all Accounting courses at the 3000-level and above taken at UM-St. Louis. The first topic includes the federal taxation of estates, gifts and trusts as they relate to wealth management. The second topic concerns interaction with the federal tax authorities. Topics may include preparing an audit protest, a request for an I.R.S. ruling, and a petition to the U.S. Tax Court.

**ACCTNG 3451 Accounting For Governmental And Not-For-Profit Entities: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; also MATH 1030 and ACCTNG 3402. Principles of fund accounting and financial reporting for governmental and nonprofit entities. This course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 3460 Accounting Career Strategies: 3 semester hours**

Prerequisites: ACCTNG 3401; minimum campus GPA of 2.0 and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This is a course in career and professional development. The primary emphasis is developing and executing a career strategy, enhancing business and client communication skills, and preparing for the transition to the accounting profession.

**ACCTNG 3490 Internship In Accounting: 1-3 semester hours**

Prerequisites: ACCTNG 3401, a minimum campus GPA of 2.0, a minimum GPA of 2.7 in all accounting courses at the 3000-level and above taken at UM-St. Louis, consent of supervising instructor and accounting internship coordinator. Students are employed in the field of Accounting where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. An accounting faculty member will monitor the student's program with the student providing a formal written report at the end of the project.

**ACCTNG 3495 Special Administration Problems - Accounting (VITA) Program: 1-3 semester hours**

Prerequisites: ACCTNG 2400, ACCTNG 2410 and ACCTNG 3401; minimum campus GPA of 2.0, minimum GPA of 2.2 in all accounting courses at the 2000-level and above taken at UMSL; completion of nine semester hours of accounting. Enrollment in the course is restricted to volunteer Income Tax Assistance (VITA) program student participants. The class offers practical tax experience, networking opportunities, potential managerial experience, and personal satisfaction derived from community service. It is taken on a satisfactory/unsatisfactory basis. The course offers one to three hours of undergraduate business elective credit and may be repeated for up to 3 hours credit.

**ACCTNG 3498 Seminar in Accounting: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum campus GPA of 2.0 and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This course is a selected special topic in the field of accounting. May be repeated for credit with different topics.

**ACCTNG 3499 Independent Study In Accounting: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0, a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL and approval by the supervising professor and the department chair. Special individual study in accounting under the supervision of a full-time accounting faculty member.

**ACCTNG 4401 Financial Accounting And Reporting III: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3402; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as income taxes, pensions, owners' equity, earnings per share, and the statement of cash flows. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 4402 Financial Accounting And Reporting IV: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3402; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as business combinations, consolidated financial statements, multinational operations, foreign exchange transactions, and governmental and nonprofit organizations. The course includes an emphasis on unstructured problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 4405 Professional Accounting Research: 3 semester hours**

Prerequisites: ACCTNG 4401; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Discussion of the research tools and methods available to resolve questions concerning accounting standards and practices. Critical analysis of topics of current interest and importance in accounting practice is the focal point of the course.

**ACCTNG 4435 Auditing: 3 semester hours**

Prerequisites: MATH 1105; ACCTNG 3402; ACCTNG 3421 or INFSYS 3810; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. An introduction to auditing practice. Includes the social role of auditing and the services offered by auditors in internal, governmental, and public accounting practice. Emphasis is on the financial auditing process, including professional ethics, audit risk assessment, study and evaluation of internal control, gathering and evaluating audit evidence, and audit reporting decisions.

**ACCTNG 4441 Advanced Federal Income Tax: Business Taxation: 3 semester hours**

Prerequisites: ACCTNG 3441 with a grade of B- or above; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Focuses on federal income taxation of corporations, S corporations, partnerships, LLCs and their owners.

**ACCTNG 5400 Financial And Managerial Accounting: 3 semester hours**

This course provides an introduction to accounting, with emphasis on preparation of financial statements for external parties (financial accounting) and accumulation of cost information to aid internal planning and control (managerial accounting). Topics covered include measurement of assets and liabilities, revenues and expenses, the accounting cycle, financial statements, cost terminology, cost behavior, product costing, and relevant costs for decision making. This course provides the necessary background for ACCTNG 5401.

**ACCTNG 5401 Financial Reporting And Analysis: 3 semester hours**

Prerequisites: ACCTNG 5400 or the equivalent. This course builds on the foundations covered in ACCTNG 5400, emphasizing in-depth analysis of published financial statements. The course begins with discussion of the role of financial accounting information in capital markets and contracting, and continues with examination of a number of specific accounting issues. Students are encouraged to look behind the numbers to better understand the economics of the underlying transactions, and properly interpret what the reported numbers mean about a firm's future prospects.

**ACCTNG 5402 Professional Accounting Research: 3 semester hours**

Prerequisites: ACCTNG 4401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Discussion of the research tools and methods available to resolve questions concerning accounting standards and practices. Critical analysis of topics of current interest and importance in accounting practice.

**ACCTNG 5403 Graduate Topics in Financial Accounting: 3 semester hours**

Prerequisites: ACCTNG 4401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of current financial reporting issues. Analysis of current problems and approaches pertaining to the communication of corporate financial information to the U.S. and international investment communities.

**ACCTNG 5404 Professional Accountancy I: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 2410; a minimum 2.0 campus GPA; graduate standing. This is the first professional-level course in financial reporting. The course includes a study of the conceptual framework underlying Generally Accepted Accounting Principles (GAAP) and issues pertaining to accounting for current assets and liabilities.

**ACCTNG 5405 Professional Accountancy II: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; graduate standing. This is the second professional-level course in financial reporting. The course includes an in-depth study of issues pertaining to accounting for operational assets, liabilities and owners equity.

**ACCTNG 5406 Research and Professional Writing in Accounting: 3 semester hours**

Prerequisites: Completion of ACCTNG 4401 and enrollment in Master of Accounting Program.. This course employs the professional accounting literature and authoritative databases to analyze contemporary issues in accounting. Students will refine their communication skills in preparation for leadership roles in the accounting profession.

**ACCTNG 5408 Fraud Examination: 3 semester hours**

Prerequisites: ACCTNG 3402 or ACCTNG 5405; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This course is designed for graduate students who are interested in fraud and its effects. Students will be introduced to theoretical concepts of fraud and practical responses to it. Course coverage includes an overview of the fraud problem; prevention and detection of fraud; elements of fraud investigation, interview techniques, fraud types, and laws governing the prosecution of fraud cases.

**ACCTNG 5411 Cost Systems Analysis: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; graduate standing. The development, interpretation, and use of accounting reports and supplementary information for management planning, control and decision making. Emphasizes the application of relevant cost behavior, control and traceability concepts in the preparation of internal accounting reports, with a secondary emphasis upon product costing techniques as appropriate to financial accounting needs. Topics include break-even analysis, operational budgeting, direct costing, absorption costing, standard costs and variance analysis, business segment analysis, responsibility accounting distribution cost accounting, and gross profit analysis.

**ACCTNG 5412 Graduate Topics in Management: Accounting Controllorship: 3 semester hours**

Prerequisite: ACCTNG 3411 or ACCTNG 5411; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of advanced managerial accounting techniques useful in facilitating the planning and control process in the modern organization. Emphasis on the implementation and administration of these techniques, their integration with management information systems, and the organizational role of the corporate accountant.

**ACCTNG 5421 Information Systems in Accounting: 3 semester hours**

Prerequisites: MATH 1030; INFSYS 1800; ACCTNG 2410; ACCTNG 3401; a minimum campus GPA of 2.0; graduate standing. This is a professional-level course in accounting information systems. The course includes examination of transaction cycles, structured analysis and design of accounting information systems, and internal controls.

**ACCTNG 5435 Graduate Topics in Auditing: 3 semester hours**

Prerequisite: ACCTNG 4435; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of advanced auditing and attestation issues, with an emphasis on operational auditing. Topics include professional ethics, risk analysis, internal control, fraud detection, analytical procedures, determining and assessing operational objectives, and reporting and implementing audit findings.

**ACCTNG 5436 Systems Auditing: 3 semester hours**

Prerequisite: ACCTNG 5400, INFSYS 6800 or consent of instructor. Study of techniques involved in the control and audit of computer-based systems. Emphasis on the review of internal controls at operational and administrative levels and on computer-assisted audit techniques.

**ACCTNG 5441 Tax Research: 3 semester hours**

Prerequisite: Acctng 3441; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; or consent of instructor. Application of the research tools and methods available to resolve questions pertaining to the tax laws. Addresses techniques for locating and evaluating relevant authority. Students will be expected to complete written tax research memos. A basic understanding of federal income tax law is presumed.



**ACCTNG 5446 Advanced Topics in Taxation: 3 semester hours**

Prerequisites: ACCTNG 3441. Address advanced topics in taxation selected by the instructor.

**ACCTNG 5447 Taxation of Individuals and Businesses: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401 or both ACCTNG 5400 and FIN 6590 with the topic "Practice of Personal Financial Planning" with grades of B or better in both; graduate standing. This is the first professional-level course in taxation. The course includes a general introduction to the concepts of taxation. It will enable students to understand the role of taxes in evaluating decisions typically confronted by individual taxpayers and businesses.

**ACCTNG 5451 Accounting and Auditing in Governmental and Not-for-Profit Entities: 3 semester hours**

Prerequisite: ACCTNG 3402 and graduate standing; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of accounting for use in the public sector and in not-for-profit organizations. Principles of fund accounting and financial reporting for governmental and not-for-profit entities, as well as auditing in the public sector.

**ACCTNG 5480 International Accounting: 3 semester hours**

Same as INTL BUS 5480. Prerequisites: ACCTNG 3402. Accounting practices for multinational businesses. Discussion of comparative financial accounting practices, the development of international accounting standards, and managerial accounting practices related to multinational operations.

**ACCTNG 5490 Graduate Internship in Accounting: 1-3 semester hours**

Prerequisites: ACCTNG 3401 or ACCTNG 5404; a minimum graduate GPA of 3.0; a minimum GPA of 3.0 in all accounting courses at the 3000-level and above taken at UMSL; consent of supervising instructor and accounting internship coordinator. The student works in an accounting internship that contains sufficient content and rigor to merit graduate credit. The student's program will be monitored by a member of the Graduate Faculty in Accounting. The course requires several meetings with the faculty advisor and a graduate-level written assignment. The course will be graded on a Satisfactory/Unsatisfactory basis. A student who has previously taken ACCTNG 3490 may not take ACCTNG 5490.

**ACCTNG 5491 Contemporary Issues In Accountancy: 3 semester hours**

Prerequisites: ACCTNG 5405 or ACCTNG 3402. This course includes an analysis of contemporary developments in the practice of accountancy or theories underlying it. This course may address topics in accountancy in any area of specialization (financial, cost/managerial, tax, auditing, governmental/NFP) or may examine topics that affect the profession as a whole. Topics will vary. May be repeated for credit when topics are different.

**ACCTNG 5498 Graduate Seminar in Accounting: 3 semester hours**

Prerequisites: To be determined each time the course is offered and to include a minimum 2.0 overall GPA and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Study of selected special problems in accounting. May be repeated for credit with different topics.

**ACCTNG 5499 Individual Research in Accounting: 1-3 semester hours**

Prerequisites: Consent of instructor, department chair and graduate director; a minimum 3.0 graduate GPA; a minimum GPA of 3.0 in all accounting courses at the 3000-level and above taken at UMSL. Special individual research topics in Accounting under the guidance of a specific professor.

**ACCTNG 6441 Graduate Topics in Taxation: 3 semester hours**

Prerequisite: At least a B in ACCTNG 3441 or ACCTNG 5447; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Addresses tax policy topics drawing on literature from accounting, economics, and public finance. Other topics of current interest will be selected by the instructor.

## Business Administration Courses

**BUS AD 1000 Introduction to Business: 3 semester hours**

Overview of the functional business disciplines, including, but not limited to principles of Accounting, Finance, Information Systems, Law, Logistics and Operations Management, Management, and Marketing.

**BUS AD 1900 Introduction to Personal Law: 3 semester hours**

This course introduces students to the American legal system and the basic issues every individual must deal with in our society. The course will be of interest to anyone seeking a job, leasing an apartment, buying a car or house, borrowing money, buying insurance, getting married or divorced, entering contracts, filing a law suit, writing a will, or accumulating wealth. May not be used for credit in any undergraduate business program.

**BUS AD 2000 Topics In Business Administration: 1-3 semester hours**

Prerequisites: Vary with topic; contact the School of Business Administration. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**BUS AD 2900 Legal Environment Of Business: 3 semester hours**

Prerequisites: Sophomore Standing. An introduction to the nature and meaning of law, sources of law, legal process and institutions. The legal environment of business is defined as: the attitude of the government toward business, the historical development of this attitude; current trends of public control in taxation, regulation of commerce and competition; freedom of contract, antitrust legislation and its relationship to marketing, mergers and acquisitions; and labor management relations.

**BUS AD 3090 Internship In Business Administration: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 hours of Business Administration electives and have consent of supervising instructor and Associate Dean. College of Business GPA of at least 2.5 is also required. Students are employed in the field of Business Administration where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. A Business Administration faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BUS AD 3090 may not be counted toward the minimum credit hours for any emphasis area.

**BUS AD 3099 Independent Study In Business Administration: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Associate Dean. Special individual study in business under the supervision of a full-time faculty member.



**BUS AD 3900 Business Law: Contracts, Sales, Secured Transactions, Bankruptcy: 3 semester hours**

Prerequisite: BUS AD 2900, or consent of instructor. Introduction to the laws of contracts, sales, secured transactions, bankruptcy, and other selected topics.

**BUS AD 3990 Internship In Business Law: 1-3 semester hours**

Prerequisites: BUS AD 2900, 3 credit hours of Business Law electives, and a Business College 2.5 GPA. Must have completed and/or be currently enrolled in at least 3 credit hour of Business Law electives and have consent of supervising instructor and Area Coordinator. Students are employed in the field of Business Law where the knowledge and skills learned in the classroom are applied. Professional development and obtaining specialized work experience are primary goals. A Business Law faculty member will monitor the student's program with the student providing a formal written report at the end of the project.

**BUS AD 3999 Independent Study In Legal Studies: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in legal studies under the supervision of a full-time legal studies faculty member.

**BUS AD 4198 Business Administration Senior Seminar: 1-10 semester hours**

Prerequisites: To be determined each time the course is offered and to include minimum 2.0 campus GPA. An intensive study of a specific area of business administration, of some specific business or economic phenomenon, or a specific problem or theory. Several different courses may be offered under this course number. May be repeated for credit as long as the topic differs.

**BUS AD 5000 Economics For Managers: 3 semester hours**

Prerequisites: none The first portion of this course introduces microeconomic analysis of consumers, firms, and government. The concepts and tools of economic analysis are applied to the production and distribution functions of organizations. The last portion is devoted to the macroeconomic influence of capital markets, the influence of interest rates, inflation, and the business cycle.

**BUS AD 5001 Managerial Economic Analysis: 3 semester hours**

Prerequisites: BUS AD 5000 or ECON 1001 and ECON 1002. Microeconomic analysis of consumers, firms, and government. The concepts and mathematical tools of economic analysis are applied to the production and distribution functions of organizations.

**BUS AD 5002 Analysis Of National Economic Environment: 3 semester hours**

Prerequisites: BUS AD 5000 or ECON 1001 and ECON 1002. The character and functioning of the national economic system; analyzing and forecasting fluctuations in national income and product, employment, and prices; the influence of monetary and fiscal policies. Emphasis is on the acquisition of knowledge concerning forces affecting all business firms.

**BUS AD 5100 Managerial Communication: 3 semester hours**

An analysis of business writing and speaking, and the communication conventions common in organizations. Emphasis is placed on developing skills critical to career advancement and necessary for effective organizational functioning. A second goal is to prepare students for assignments in other business courses. This course must be taken within the first 12 credit hours of study, preferably in the student's first semester.

**BUS AD 5198 Seminar In Business Administration: 3 semester hours**

An intensive study of a specific area of business administration of some specific business or economic phenomenon, or a specific problem or theory. Several different courses may be offered under this course number.

**BUS AD 5299 Individual Research: 1-3 semester hours**

Prerequisite: Consent of instructor and graduate director. Special individual research topics under the guidance of a specific professor.

**BUS AD 5450 Governmental Budgeting And Financial Control: 3 semester hours**

Prerequisite: ACCTNG 5400. A study of municipal and federal financial control and budgeting procedures with emphasis on public policy. The impact of financial control on top management decisions and the effect of budget strategies on the allocations of public funds.

**BUS AD 5900 Law, Ethics And Business: 3 semester hours**

Analysis of the relationship between law and business with emphasis on the ability of, and extent to which, governments regulate business activities. Topics covered include the employer-employee relationship, protection of consumers, antitrust regulation, and securities law. Also discussed are ethical issues confronting management of the modern business enterprises.

**BUS AD 6990 Strategy Formulation And Implementation: 3 semester hours**

Prerequisites: FINANCE 6500, MGMT 5600, MKTG 5700, LOG OM 5320 and special consent. Graduate program capstone course examining concepts and methods that integrate functional areas of business. The perspective is that of general management charged with directing the total enterprise. Interactions between the environment, organization, strategy, policies and the implementation of plans are explored. Special emphasis is given to globalization of business and ethical perspectives. This course should be taken during the semester prior to graduation. In no case may it be taken sooner than two semesters prior to graduation.

**BUS AD 7001 Doctoral Research: 1-12 semester hours**

Prerequisites: Must have Ph.D. Program Director or Area Coordinator approval Investigation of an advanced nature culminating in preparation for comprehensive examinations and/or development of dissertation proposal. The course may be repeated for credit.

**BUS AD 7002 Dissertation Research: 1-12 semester hours**

Prerequisites: Must have Ph.D. Program Director or Area Coordinator approval. Investigation of an advanced nature culminating preparation of a doctoral dissertation. The course may be repeated.

**BUS AD 7021 Qualitative Methods And Philosophical Foundations Of BA Research: 3 semester hours**

Prerequisites: Admittance into the Ph.D. Program This course investigates the ontology and epistemology of business administration research, particularly as they pertain to qualitative research methods, such as case studies, action research, and ethnomethodology.

**BUS AD 7300 Statistical Modeling: 3 semester hours**

Prerequisites: LOG OM 5300; Admittance into the Ph.D. Program. Study of multivariate analytical techniques and their application to the analysis of business systems. Topics include the construction and adaptation of statistical models and extrapolative techniques to accommodate factor interactions, nonlinearities, and periodic effects. Methodologies include multiple regression, ANOVA, and general linear model, MANOVA, structural equation modeling, and time series modeling.

## Finance Courses

### **FINANCE 1590 Personal Finance For Nonbusiness Majors: 3 semester hours**

For future professionals who want to learn more about personal finance and how to better manage their resources. The topics include purchasing/leasing cars, home acquisitions, investing in stocks and bonds, mutual funds, retirement planning and health and life insurance. Special emphasis will be on the nontechnical aspects of these issues. Cannot be used for credit in BSBA program.

### **FINANCE 3500 Financial Management: 3 semester hours**

Prerequisites: ECON 1002, MATH 1105, and ACCTNG 2400 and a 2.0 overall GPA. The study of a firm's need for funds; the institutions, instruments and markets concerned with raising funds; and the techniques of analysis used to determine how effectively these funds, once raised, are invested within the firm.

### **FINANCE 3501 Financial Policies: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. The intensification and application of the concepts developed in FINANCE 3500. Special emphasis is given to the development of top management policies and their application toward complex problems of finance. Techniques for identifying and dealing with these problems before they become acute will be investigated. Cases will be integrated with appropriate outside reading.

### **FINANCE 3502 Treasury Management: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. The focus of this course is on the role cash management plays in corporate finance. Topics include cash collection and payment systems, forecasting cash flows, electronic fund transfers, check processing, international cash management and managing bank relationships. Students passing the course with a grade of A or B are permitted to take the qualifying exam to become a Certified Cash Manager (CCM) under a special arrangement with the Treasury Management Association. Along with other finance courses, this class prepares students for careers in the Treasury Departments of major companies or with service providers like banks.

### **FINANCE 3503 Computer Applications In Finance: 3 semester hours**

Prerequisite: INFSYS 1800, FINANCE 3500, one 3000-level finance course and a 2.0 overall GPA. Financial problem solving and applications on the micro-computer. A project oriented course with an emphasis on micro based finance projects: Present value/IRR analysis, duration, immunization, portfolio optimization, leasing, capital budgeting, financial forecasting, options and futures.

### **FINANCE 3520 Investments: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. Financial analysis of debt and equity instruments available on organized exchanges and in less tangible "over the counter" markets. Techniques of such analysis being presented in context with economic and management circumstances within the company, industry and economy.

### **FINANCE 3521 Financial Engineering: Applying Derivatives: 3 semester hours**

Prerequisites: FINANCE 3500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 3520) prior to enrolling in FINANCE 3521.

### **FINANCE 3523 Fixed Income Analysis: 3 semester hours**

Prerequisites: FINANCE 3500. This course explores key issues in fixed income securities. The topics include pricing of bonds, measuring bond yields, bond price volatility, factors affecting yields and the term structure of interest rates, treasury securities, corporate debt instruments, residential mortgage loans, collateralized mortgage/debt obligation, and analysis of bonds with embedded options. The course prepares students for the CFA exams of Level 1 in the area of fixed income analysis.

### **FINANCE 3525 Practicum In Investments: 1 semester hour**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. Students will apply their knowledge of stocks and bonds by managing a real dollar portfolio of securities. This course requires that students perform technical and fundamental analysis, prepare research reports, present proposals and participate in group investment decisions. The University's Student Investment Trust provides the money for students to invest. Course may be repeated for credit up to a maximum of 3 credit hours.

### **FINANCE 3540 Introduction to Financial Institutions and Financial Markets: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. The course surveys financial institutions and financial markets and addresses the interplay between institutions and markets. State and federal regulation of institutions and markets is explored. A portion of the course addresses current events, managerial policy issues, and regulatory issues in financial services and markets. Focus is primarily U.S. institutions and markets, but the evolving impact of globalization and importance of the Foreign Exchange Market on U. S. financial institutions are developed.

### **FINANCE 3541 Commercial Bank Management: 3 semester hours**

Prerequisites: ECON 1002, FINANCE 3500 and a 2.0 overall GPA. Corporate finance and microeconomics are applied to matters of importance to commercial bankers. Among the subjects treated are bank-asset portfolio construction, lending policies, liabilities management, bank capital structure, short-run cash management, financial market rates and flows, and quantitative models for bank management. Commercial bank management is analyzed from an internal viewpoint in terms of what bank managers should look for in asset management and why; what market conditions they should be aware of; and what techniques they can use to meet changing economic and financial conditions.

### **FINANCE 3542 Principles Of Real Estate: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. As an introduction to the real estate industry, the course broadly explores all phases of acquisition, development and disposal of real property. Topics include legal requirements of contracts, property rights, valuation and appraisal techniques, marketing, brokerage operations and practices, mortgage financing, leasing and property management.

### **FINANCE 3560 Practice Of Personal Financial Planning: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. Professional financial planning requires broad knowledge of investments, insurance, income taxation, retirement planning, and estate planning, as well as certification requirements and legal/ethical issues. This course introduces students to the field of financial planning, and provides an integrated overview of the topics listed above. Students interested in the Financial Planning track are encouraged to complete this course prior to taking other courses in the track.

**FINANCE 3561 Principles Of Insurance: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This is a survey course intended to introduce students to the basic concepts of insurance. Topics include the nature of risks, types of insurance carriers and markets, insurance contracts and policies, property and casualty coverages, life and health insurance, and government regulations. The functions of underwriting, setting premiums, risk analysis, loss prevention, and financial administration of carriers are emphasized.

**FINANCE 3562 Life Insurance And Employee Benefits: 3 semester hours**

Prerequisites: FINANCE 3500 or equivalent and a minimum campus GPA of 2.0 This course explores the life insurance business from the perspective of both the consumer and provider. Coverage will include an analysis of the various types of life insurance products, aspects of life insurance evaluation, reinsurance, underwriting, and uses of life insurance in financial planning. Also included is an examination of the tax, legal, and ethical requirements.

**FINANCE 3563 Retirement Planning And Employee Benefits: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator The course is designed to give students an understanding of the retirement planning process. Students will gain an appreciation of the usefulness (and shortcomings) of employee benefits and develop an ability to counsel others on important retirement and employee benefit decisions. Corporate pension and profit sharing plans, self-employed Keough plans, IRA's, annuities, health insurance, and social security will be discussed.

**FINANCE 3564 Estate Planning And Trusts: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator This course will focus on the responsibility of a financial planner in the formulation and implementation of an estate plan. Topics include wills, lifetime transfers, trusts, gifts, estate reduction techniques, tax implications in estate planning, business and inter-family transfers, dealing with incompetency, postmortem techniques, and the role of fiduciaries. Lectures, cases, and guest speakers will be used to stimulate analysis and discussion.

**FINANCE 3565 Seminar in Financial Planning: 3 semester hours**

Prerequisites: ACCTNG 3441, FINANCE 3520, FINANCE 3560, FINANCE 3561, FINANCE 3563, and FINANCE 3564; a minimum campus GPA of 2.0; or permission of instructor. This course serves as the capstone in the registered Financial Planning curriculum. Students will prepare and present comprehensive, professional-level personal financial plans. This course is required by the Certified Financial Planner Board of Standards for those who wish to sit for the Certified Financial Planner examination.

**FINANCE 3580 International Corporate Finance: 3 semester hours**

Same as INTL BUS 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This course explores corporate finance in the context of a global environment. Financial managers for an international firm must deal with all the normal problems faced by domestic corporations plus additional foreign exchange and political risks. Class discussions will focus on applying financial techniques to decision making in foreign operations. Students are required to work in a group to undertake a project related to international finance.

**FINANCE 3582 International Investments: 3 semester hours**

Same as INTL BUS 3582. Prerequisites: FINANCE 3500. This course explores the concepts of investing and hedging risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.

**FINANCE 3590 Internship In Finance: 1-3 semester hours**

Prerequisite: a minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of finance electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience in a Track area are the primary goals. The student's program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project. FINANCE 3590 may not be counted toward the minimum 15 credit hours of finance electives for a finance emphasis.

**FINANCE 3595 Special Administration Problems - Finance: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**FINANCE 3598 Seminar in Finance: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of finance. May be repeated for credit with different topics.

**FINANCE 3599 Independent Study In Finance: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in finance under the supervision of a full-time finance faculty member.

**FINANCE 5599 Individual Research in Finance: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Finance under the guidance of a specific professor.

**FINANCE 6500 Financial Management: 3 semester hours**

Prerequisites: ACCTNG 5400 or ACCTNG 2400, LOG OM 5300 or LOG OM 3300, and BUS AD 5000 or ECON 1001 and ECON 1002. This course provides an in-depth analysis of corporate finance including asset pricing, risk and return, short- and long-term investment decisions, capital structure choices, dividend policy, derivatives, mergers and acquisitions, and a host of other current topics. The material is taught through lectures and problem solving.

**FINANCE 6501 Advanced Financial Management: 3 semester hours**

Prerequisite: FINANCE 6500 and LOG OM 5300. Exposure to recent financial management theory through selected readings. Financial management problems are considered by the use of cases and simulation models. An original research project under the supervision of instructor is required.

**FINANCE 6520 Security Analysis: 3 semester hours**

Prerequisite: FINANCE 6500 and LOG OM 5300 An in-depth study of techniques used in evaluating various financial assets as investment opportunities. Financial assets studied include common stock, preferred stock, and fixed income securities. Other related topics such as sources of investment information and current market trends are discussed.



**FINANCE 6521 Financial Forensics: The Science of Derivatives: 3 semester hours**

Prerequisites: FINANCE 6500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 6520) prior to enrolling in FINANCE 6521.

**FINANCE 6540 Financial Institutions and Financial Markets: 3 semester hours**

Prerequisite: Graduate Status and FINANCE 6500. By lecture and casework, the course surveys markets (Money Market, Capital Markets, Foreign Exchange) and various forms of financial institutions. Historical and evolving business models of financial institutions are explored in the context of regulation, economics, and competition. Interplay between institutions and markets is addressed. Structure and purpose of regulation is examined. A portion of the course involves current events and managerial policy issues in financial services. A major U.S. financial institution is selected and case analyzed by the class. Focus is U.S. institutions and markets, but impact of globalization is discussed.

**FINANCE 6541 Commercial Bank Management: 3 semester hours**

Prerequisite: FINANCE 6500. This course explores the various bank management techniques required to manage a modern commercial bank in a rapidly changing environment. Topics include asset and liability management, capital adequacy, bank holding companies, profitability, and bank market structure and regulation.

**FINANCE 6542 Real Estate: 3 semester hours**

Prerequisite: FINANCE 6500 This course provides a broad introduction to real estate with a focus on legal issues, market analysis, valuation, financing, leasing and investment decisions. Classes are conducted in a standard lecture format with discussion on current topics. No prior knowledge of the industry is required.

**FINANCE 6580 International Financial Management: 3 semester hours**

Same as INTL BUS 6581. Prerequisite: FINANCE 6500. The objective of this course is to introduce students to financial issues for multinational firms. Besides covering basic tools and techniques, the class stresses the role of the financial manager in analysis and decision-making. Topics include the impact of international accounting and tax issues, capital budgeting in a foreign environment, transfer pricing, and global funding. Conceptual skills for lifelong learning experiences are emphasized. This course employs a lecture and case format with group discussions.

**FINANCE 6581 Seminar In International Investments: 3 semester hours**

Same as INTL BUS 6581. Prerequisite: FINANCE 6500 This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the comprehensive project report. A prior investments course is recommended but not required.

**FINANCE 6582 International Bank Management: 3 semester hours**

Prerequisites: FINANCE 6500. The objective of this course is to introduce students to many challenging issues in international bank management. This is a specialized finance course dealing explicitly with global bank decision-makings of a multinational bank that uses a variety of financial tools and skills. The course will discuss the rapidly blurring distinctions between commercial and investment bankers. Conceptual skills for life-learning (evolving) experiences relevant to the global banking sector are emphasized.

**FINANCE 6590 Seminar In Finance: 3 semester hours**

Prerequisites: FINANCE 6500 This course incorporates a wide range of advanced topics in finance including, but not limited to, an evaluation of various financial assets as investment opportunities, trends in capital markets, derivatives and management of financial and non-financial firms.

**FINANCE 6591 Finance Internship: 1-3 semester hours**

Prerequisites: Students must have completed and/or be enrolled in at least 6 credit hours of finance electives and have consent of supervising faculty member and Area Coordinator Students work in the field of finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. The student's program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project.

## Information Systems Courses

**INFSYS 1012 Learning to Program Using Virtual Worlds: 3 semester hours**

Introduces modern programming principles without requiring the knowledge of a traditional programming language. Instead, this course utilizes a novel graphical approach that enables the student to create, populate, and manipulate virtual 3-dimensional worlds which resemble video games. The development of these worlds allows students to gain direct experience and skills in using computers to solve problems. Students will create worlds of varying complexity.

**INFSYS 1800 Computers And Information Systems: 3 semester hours**

This course covers the basic concepts of networked computers including the basics of file management on local and remote computers, electronic mail, Internet browsers, and web page development. Students are also exposed to applications used in business for solving problems, communicating, and making informed decisions, including word processors, presentation software, and electronic spreadsheets. Students will also develop business applications using a popular programming language or database management tool. Credit cannot be granted for both CMP SCI 1010 and INFSYS 1800.

**INFSYS 2800 Information Systems Concepts And Applications: 3 semester hours**

Prerequisites: INFSYS 1800 or satisfactory performance on proficiency exam. Course covers concepts of information systems as they relate to business functions, including web page design and e-commerce, telecommunications, systems analysis and design, ethics of information system design and use, information security, foundations of database systems and integrated business information systems. Students will also gain valuable strategies for career development, contact management, and networking.



**INFSYS 3806 Managerial Applications Of Object-Oriented Programming I: 3 semester hours**

Prerequisites: INFSYS 1800 or CMP SCI 1250, and a 2.0 overall GPA. The course provides a study of the UNIX operating system and the C++ programming language as they pertain to managerial applications. In addition, the course will introduce the use of object-oriented programming methodologies.

**INFSYS 3807 Legacy Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. Structured COBOL programming techniques for business applications are presented. Included are report generation, control breaks, output editing, debugging, tables, sort concepts, job control language, utilities, partitioned data sets, and updating of files.

**INFSYS 3810 Information Systems Analysis: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806 or permission of instructor. Aspects and methods for managing the computer and information resources of organizations. Topics include: project management, aligning IS plans with corporate plans, MIS organizational structures, demonstrating the value of systems, facility management, purchase decisions, software acquisition, software metrics, security issues, and economic evaluation, as they relate to information resources. Special cases of systems, such as Enterprise Resource Planning (EPR) systems, Supply Chain Systems, and BPO will be discussed.

**INFSYS 3815 Object Oriented Applications In Business: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. Object-oriented programming techniques for business applications are presented. The topics are implemented in a C++ environment.

**INFSYS 3816 Managerial Application Of Object-Oriented Programming II: 3 semester hours**

Prerequisites: INFSYS 3806 and a minimum overall GPA of 2.0. This course expands object-oriented skills taught in INFSYS 3806. The emphasis in this course is on object-oriented development tools and development in a client-server environment. The data management tools will include the use of SQL to access serverbased databases.

**INFSYS 3841 Enterprise Information Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. Aspects and methods for managing the computer and information resources of organizations. Topics include: aligning IS plans with corporate plans, MIS organizational structures, demonstrating the value of MIS to senior management, facility management, purchase decisions, software acquisition, software metrics, project management, security issues, and economic evaluation, as they relate to information resources.

**INFSYS 3842 Management Of Telecommunications: 3 semester hours**

Prerequisites: INFSYS 1800 and a 2.0 overall GPA. The technical and managerial aspects of telecommunications as they apply to the business environment are discussed. Issues include: communications components and services, local area network architecture, managerial implementations, organizational issues, and cost/benefits analyses.

**INFSYS 3843 Decision Support Systems for Business Intelligence: 3 semester hours**

Prerequisites: LOG OM 3300 and a minimum campus GPA of 2.0 Applications of intelligent decision support systems to support business intelligence are explored. DSS component design in response to decision making and business intelligence needs are discussed.

**INFSYS 3844 Developing Business Applications In NET: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. This course will enable students to design, implement, and debug object-oriented and data driven business applications in Visual Basic.NET. Students will learn application design choices, object-oriented design principles, event-driven programming, user interface programming using Windows Forms and user interface controls, data binding and database access using ADO.NET, exception handling, debugging and effective ways of working with Visual Studio.NET.

**INFSYS 3845 Database Management Systems: 3 semester hours**

Prerequisites: INFSYS 2800 and a minimum campus GPA of 2.0. This course provides an introduction to the design and use of databases in meeting business information needs. Topics include database planning, conceptual design, and data administration. The concepts are studied with projects involving the use of a current database management system.

**INFSYS 3846 E-Commerce: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course provides an understanding of strategies, managerial issues, and technologies pertaining to electronic commerce in organizations. Topics include: history, business models, the virtual value chain, electronic markets, impact on organizational strategy and industry structure, analysis of successful strategies, and other emerging issues (legal, ethical, regulatory) related to managing electronic commerce, and the technical infrastructure enabling electronic commerce.

**INFSYS 3847 Web Design: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course focuses on web page planning, design, layout and construction. Topics covered include: setting up and maintaining a web site; understanding site structure, presentation, navigation and content management. HTML/XML, CSS, Dreamweaver, Fireworks, Flash, Photoshop, data access, scripting languages, and various other technologies and tools will be discussed.

**INFSYS 3848 Security And Information Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course addresses the challenge of assuring security in information systems - networked, embedded, and stand alone. Topics include: security policies, models, tools, and techniques for enforcement. The course also examines flawed security policies, and the consequences of penetration and disruption of information systems.

**INFSYS 3890 Internship In Management Information Systems: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of management information systems electives at the 3000 level or above and have consent of supervising instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of management information systems where they apply the knowledge and skills learned in the classroom. Professional development obtaining specialized work experience are primary goals. A management information systems faculty member will monitor the student's program with the student providing a formal written report at the end of the project. INFSYS 3890 may not be counted toward the minimum credit hours of management information systems electives required for a Management Information Systems degree.

**INFSYS 3895 Special Administrative Problems - Management Information Systems: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**INFSYS 3898 Seminar in Information Systems Management: 1-3 semester hours**

Prerequisites: To be determined each time course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of information systems. May be repeated for credit with different topics.

**INFSYS 3899 Independent Study In Information Systems: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in information systems under the supervision of a full-time information systems faculty member.

**INFSYS 4850 Information Systems Design: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; INFSYS 3810, INFSYS 3816 and INFSYS 3845. System design, implementation, and methods of systems installation and operation are presented. A system development project is required.

**INFSYS 5800 Management Information Systems: 3 semester hours**

Same as P P ADM 6800. This course provides an overview of the established and contemporary issues related to information systems within organizations. Topics include the practices and tools associated with topics such as the management of IS-based investment projects, the design and implementation of IS, the alignment of IS strategy with organizational strategy, information security and privacy, and gaining a competitive advantage through IS.

**INFSYS 5899 Individual Research in Information Systems: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Information Systems under the guidance of a specific professor.

**INFSYS 6805 Applications Of Programming For Business Solutions: 3 semester hours**

Prerequisite: ECON 4105. This course provides a study of business-oriented programming. A programming language will be introduced and discussed in detail. Emphasis will be on program definition and the use of such programs in business-oriented applications.

**INFSYS 6806 Managerial Applications Of Object-Oriented Technologies: 3 semester hours**

Prerequisite: INFSYS 6805. This course deals with business-oriented programming in an object oriented environment. The emphasis will be on program definition, and tools and development in a client-server environment. The course will involve the study of object-oriented language in addition to object-oriented methodologies for systems development.

**INFSYS 6808 Internet Programming For Business: 3 semester hours**

Prerequisite: INFSYS 6805 Focus on web-based applications development for business. It will begin with the fundamentals of web-based computing, including web client and server interaction, the MIME standard, server and client data frame headers, the CGI standard, and error conditions as they pertain to business applications. In addition, JAVA will be introduced to build web-based GUI-interfaces and back-end servers. Finally, business applications issues such as firewalls, proxy servers and data encryption using secure servers will be included.

**INFSYS 6833 Decision Support Systems for Business Intelligence: 3 semester hours**

Prerequisite: LOG OM 5300 Applications of intelligent decision support systems to support business intelligence are explored. DSS component design in response to decision making and business intelligence needs are discussed.

**INFSYS 6835 IT-Enabled Business: 3 semester hours**

Prerequisite: INFSYS 5800. IT-enabled business focuses on business models, processes, and activities made possible by the internet. The course includes theoretic aspects of e-commerce: consumer relationship management, supply chain management, inventory management, business strategy, auctions, and portals. Issues associated with electronic commerce such as security, privacy, content selection and rating, intellectual property rights, authentication, encryption, acceptable use policies, and legal liabilities are explored. Particular attention is paid to IT-enabled entrepreneurship and business creation, and IT use in small to medium sized enterprises. Case studies drawn from actual business applications will be used to reinforce theory.

**INFSYS 6836 Telecommunications: Design And Management: 3 semester hours**

Prerequisite: INFSYS 5800 (may be taken concurrently) The topic of telecommunications is addressed from both a technical and managerial viewpoint. In particular, the course will address issues such as communications components and services, local area network architecture, managerial implementations, organizational issues, and cost/benefit analyses.

**INFSYS 6837 Information Systems Architecture: 3 semester hours**

Prerequisite: INFSYS 6836 This course explores a wide range of topics necessary for understanding and managing distributed computing technology. A wide range of infrastructure and "middleware" architectural components will be explored. Finally, the course will provide a framework for understanding the capabilities and shortcomings of various distributed computing architectures, technical standards and their implications for interoperability of components.

**INFSYS 6838 Business Processes: Design, Management & Integration: 3 semester hours**

Prerequisite: INFSYS 5800. Major business processes are identified and analyzed. Issues related to characteristics, goals, benefits and costs of enterprise-wide design, and the role of information technology during the design process are discussed. Workflow automation, process modeling, analysis, automation, and redesign techniques are discussed, including the following: process inputs & entrance criteria, process outputs & exit criteria, feedback mechanisms & process correction, alternate theoretical frames for business process design, and impacts on business process design from socio-cultural forces. Case studies are used to illustrate the concepts.

**INFSYS 6840 Information Systems Analysis: 3 semester hours**

Prerequisite: INFSYS 6805 The theory and practice of structured analysis are presented. Topics may include: traditional vs. structured analysis methods, requirements analysis, user/analyst interaction, investigation of existing systems, human/machine interfaces, CASE tools, and workbenches.

**INFSYS 6845 Database Management Systems: 3 semester hours**

Prerequisites: INFSYS 5800 The course introduces the concepts of Database Management Systems for business applications. Issues in database architecture, design, administration, and implementation are covered. Projects are assigned on a mainframe DBMS and a microcomputer based DBMS to illustrate the concepts & applications.

**INFSYS 6846 Management Of Global Sourcing: 3 semester hours**

Same as INTL BUS 6846. Prerequisite: INFSYS 5800. Largely fostered by the spread of the Internet, global software development standards, global software packages, and fewer trade restrictions, organizations now regularly source software development, software maintenance, systems upgrades, platform transitions, help desks, and other IS-related work globally. This course covers topics to help organizations manage global sourcing of IS work, including sourcing strategies, sourcing models (captive, joint venture, outsourcing), role of program management offices, supplier selection, engagement models, and special practices required to manage globally dispersed teams. Risk mitigation practices associated with cultural, legal, political, infrastructure, logistical, and human resource issues are also addressed.

**INFSYS 6847 Financial And Project Management: 3 semester hours**

Prerequisite: INFSYS 5800. Effective project management ensures that a project is completed on time, within budget, and has high quality. The purpose of this class is to examine the task of project resource management with a focus on IT and services. It will cover conventional aspects of project management, such as the project evaluation, planning, roles, responsibilities, scheduling, and tracking. In addition, this class will examine risk management, change management, critical chain management, build vs. buy analysis, package vs. custom solutions, vendor qualification and selection, and the roles of certification in the process. The class will also cover the management of programs or a portfolio of IT projects.

**INFSYS 6848 Knowledge Management And Business Intelligence: 3 semester hours**

Prerequisite: INFSYS 5800. Knowledge management (KM) is the process of creating, and drawing value from, an organization's intellectual assets. It deals with how to best leverage the organization's knowledge internally as well as externally. The emphasis on knowledge management within business organizations has risen dramatically in the last few years, to some extent as a result of the rapid progress in information technology capabilities. The course covers the following topics: KM tools, technologies, and systems, including knowledge repositories, knowledge portals, and expert seeker systems, creating and sustaining a knowledge sharing culture, managing and measuring intellectual capital, managing knowledge in networked organizations, including interorganizational alliances and supply chains, aligning knowledge with business strategy, risks of knowledge loss and knowledge leakage, business intelligence, and social aspects of knowledge management.

**INFSYS 6849 Data Warehouse Design and Implementation: 3 semester hours**

Prerequisites: INFSYS 6845 or consent of instructor. Course will cover different design configurations for structuring and organizing data in a data warehouse. Formal methodologies for the development of data warehouses will also be discussed and implemented.

**INFSYS 6850 Information Systems Design: 3 semester hours**

Prerequisites: INFSYS 6840 and INFSYS 6845. This course builds upon the analysis techniques presented in INFSYS 6840. It requires the student, usually working in a group to design and implement a system in a real-world environment. Advanced design concepts are presented to support the students in their project work.

**INFSYS 6851 Practicum in Business Intelligence: 3 semester hours**

Prerequisites: INFSYS 6833, INFSYS 6849, and LOG OM 6345. This course will provide the context for students to integrate, synthesize and apply their Business Intelligence skills in an actual business organization. Project work will be jointly supervised and coordinated by a faculty member and a supervisor in the relevant business organization.

**INFSYS 6881 Management Of Transnational Information Systems: 3 semester hours**

Same as INTL BUS 6881. Prerequisites: INFSYS 5800, INFSYS 6825 (may be taken concurrently). The course presents concepts of managing global information technology. Issues covered include: global information technology, systems development, electronic data interchange, cross-border data flows, and national and international information structures. Further topics may include information technology enabled economic development, global outsourcing of information systems services, and social, organizational and ethical implications.

**INFSYS 6891 Seminar In Management Information Systems: 3 semester hours**

Prerequisites: INFSYS 5800. Topics of current interest in management information systems. Topics may include international information systems, electronic commerce, decision support systems, information systems strategy, telecommunications, and information systems management.

**INFSYS 7890 IS Research Seminar: 3 semester hours**

Prerequisites: INFSYS 5800; Admittance into the Ph.D. Program. Analysis of the research problems, approaches, and findings of Management Information Systems Research. May be repeated for credit when the subject matter is different.

**INFSYS 7891 Quantitative Research Methods In IS: 3 semester hours**

Prerequisites: INFSYS 5800; Admittance into the Ph.D. Program. Analysis of research design and validity of quantitative methods applied to the study of Management Information Systems, including laboratory experiments, sample surveys, and field experiments.

**INFSYS 7892 Doctoral Seminar In Current Information Systems Topics: 3 semester hours**

Prerequisites: INFSYS 5800. Admittance into the Ph.D. Program. Theoretical and empirical analysis of topics of long-term importance to the IS field such as systems analysis and design, systems development and implementation, and database management. A historical perspective of the technical and behavioral issues associated to IS artifacts is provided such that contemporary issues and trends can be appreciated.

**INFSYS 7893 Special Topics In Information Systems: 3 semester hours**

Prerequisite: Consent of Instructor and admittance into the Ph.D. Program. In-depth analysis of special topics in IS research. May be repeated for credit when the subject matter is different.

**INFSYS 7894 Theoretical Foundations Of Information Systems Research: 3 semester hours**

Prerequisites: INFSYS 5800, Admittance to the Ph.D. Program. The theoretical foundations of information systems are largely built upon the theories from other disciplines, including the physical sciences, computer science, sociology, psychology, and mathematics. In this course, we survey a variety of theoretical foundations from other disciplines by reading the original works, critical responses to these theories, and representative applications of these theories in the IS domain.



## International Business Courses

### ***INTL BUS 3280 The Law Of International Business Transactions: 3 semester hours***

Prerequisites: BUS AD 2900 or consent of the instructor. A study of the role and function of International Law and national laws in the regulation of international business transactions. The impact of various legal regimes on import/export transactions, foreign investments, and the operations of multinational enterprises will be included. The role of national governments, supra-national governmental organizations, and non-governmental organizations in forming and administering the international legal environment will be studied.

### ***INTL BUS 3281 Business In China: 3 semester hours***

Prerequisites: A minimum campus GPA of 2.0; and junior standing This course introduces students to the practices of doing business in China. Students will be introduced to the Chinese economic and business environment. Issues related to trade and foreign direct investment in China will be discussed. The course adopts an innovative approach, utilizing lectures, case analysis, projects, and student presentations.

### ***INTL BUS 3282 Managing The Global Workforce: 3 semester hours***

Prerequisite: A minimum of 2.0 campus GPA. In addition, MGMT 3600 and at least one of the following: MGMT 3611 or MGMT 3621 or enrollment in Honors College or consent of instructor. A study of the international dimensions of organizational behavior and human resource management. The course provides an overview of the tools and skills that are necessary to understand and manage people in global organizations. Topics include motivation, leadership, communication, hiring, training, and compensation.

### ***INTL BUS 3283 International Business And Society: 3 semester hours***

Encompasses the readings, lectures, company and government agency visits, and cultural visits that comprise annual Country Study Tours, (e.g., Austria, Japan, Thailand, etc.). The program includes 45 contact hours or more of classroom lectures covering aspects of the chosen country's business and society, in-depth pre-departure cross-cultural orientation and training supplemented by briefings on the country's economy and on U.S. market penetration by the Commercial Service, U.S. Embassy; a briefing by the in-country State of Missouri representative; briefings by host country agencies; company visits and factory tours; and tours of cultural sites. Student evaluation will be based on active participation and on a research paper based on readings, lectures, interviews and field observations.

### ***INTL BUS 3284 The Japanese Management System: 3 semester hours***

Prerequisites: MGMT 3600 This course provides an introduction to various aspects of the contemporary Japanese business system. The emphasis is on interpretation of issues from a managerial perspective. Topics include an overview of Japan's economic growth, government policies, industrial and financial structure of Japanese business, labor-management relations, internal management practices, international competitive strategies, managing U.S. subsidiaries in Japan, penetrating the Japanese market, Japanese investment in the U.S.A., and current issues in U.S. Japan economic relations.

### ***INTL BUS 3285 Role Of The Global Corporation: 3 semester hours***

Prerequisites: A minimum 2.0 campus GPA and MGMT 3600 or permission of the instructor. The purpose of this course is to create awareness of controversial issues about international business. Students will gain a better understanding of resistance to and criticism of international business and will become better prepared for dealing with these issues and problems.

### ***INTL BUS 3286 International Business Ethics: 3 semester hours***

Same as PHIL 3286. This course will deal with moral issues that are raised by the increasing globalization of business. Apart from the general issue of whether this globalization is itself a good thing, we will discuss such issues as child labor, working conditions, safety standards, environmental policies, bribery and other "corrupt" practices, respect for intellectual property, etc. Frequent short papers will be assigned.

### ***INTL BUS 3289 Practicum In International Business: 3 semester hours***

Prerequisites: At least one international business course, 2.0 campus GPA and completion of an approval form. Students will apply both their language skills and knowledge of international business by working for a three month period in an organization located outside the student's country of origin. This course requires students to prepare a research report summarizing the global experience and how it relates to the international business program.

### ***INTL BUS 3290 Internship In International Business: 3-6 semester hours***

Prerequisites: ECON 1001 and ECON 1002, ACCTNG 2400 and ACCTNG 2410, an additional 12 hours in Business Administration, concurrent enrollment in a UM overseas program; also a minimum overall gpa of 2.0. The internship will be a supervised field experience in a business/ international organization at a foreign site. Students will work for 10 weeks on projects directed by host-organization supervisors in consultation with a UM-St. Louis faculty member. Prior to the field experience students will receive training that includes familiarization with the language and practices of the country's business, the background of the host firm, and international information sources. The student will complete a written report of his/her project. Course may not be repeated for more than 6 hours credit.

### ***INTL BUS 3299 Independent Study In International Business: 1-3 semester hours***

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator of the specific discipline. Special individual study in international business under the supervision of an approved faculty member.

### ***INTL BUS 3580 International Corporate Finance: 3 semester hours***

Same as FINANCE 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This course explores corporate finance in the context of a global environment. Financial managers for an international firm must deal with all the normal problems faced by domestic corporations plus additional foreign exchange and political risks. Class discussions will focus on applying financial techniques to decision making in foreign operations. Students are required to work in a group to undertake a project related to international finance.

### ***INTL BUS 3582 International Investments: 3 semester hours***

Same as FINANCE 3582. Prerequisites: FINANCE 3500. This course explores the concepts of investing and hedging risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.



**INTL BUS 3680 International Management: 3 semester hours**

Same as MGMT 3680. Prerequisites: A minimum 2.0 campus GPA. In addition, ECON 1002 and MGMT 3600; or consent of the instructor. A study of international business and management practices. Topics covered include an introduction to international management and the multinational enterprise, the cultural environment of international management, planning in an international setting, organizing for international operations, directing international operations, international staffing, preparing employees for international assignments, and the control process in an international context.

**INTL BUS 3780 International Marketing: 3 semester hours**

Same as MKTG 3780. Prerequisites: MKTG 3700 and a 2.0 overall GPA. Marketing management problems, techniques and strategies needed to apply the marketing concept to the world marketplace. Understanding a country's cultural and environmental impact on the marketing plan is emphasized, as well as competing in markets of various cultures. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, and current economic and marketing issues are examined.

**INTL BUS 3787 Marketing in the European Union: 3 semester hours**

Same as MKTG 3787. Prerequisites: MKTG 3780 or instructor's permission. The European Union (EU) is both a major customer and major competitor of the United States. The inclusion of many of the Eastern European countries into the EU has added another challenge to our ability to trade in this area. The better we understand the people, institutions and policies of the EU, the better positioned we will be to conduct business effectively. This course will emphasize understanding the institutional structure that unites the European Union as well as the cultural and political diversity of its members, and provide insights into how business activity functions in the European Environment.

**INTL BUS 4280 International Business Experience: 0 semester hours**

Students with an International Business emphasis must complete one of the following international experience requirements: (a) study abroad for three or more credit hours, (b) complete a minimum of one year international experience (e.g., Peace Corps, volunteer work, missionary work, an international posting by an organization) within 5 years of entering the program, or (c) complete an international internship approved by the International Business Institute. May be taken on a satisfactory/unsatisfactory basis only.

**INTL BUS 4281 Entrepreneurship in the Global Environment: 3 semester hours**

Prerequisites: ECON 1002; ACCTNG 2410; MKTG 3700. This course explores changes in the planet's physical environment and ways of reversing, retarding or coping with those changes. Students will be required to develop proposals for new business ventures that have as a goal preservation or restoration of the natural environment.

**INTL BUS 4289 International Strategic Management: 3 semester hours**

Prerequisites: A minimum 2.0 campus GPA and INTL BUS 3282, MKTG 3780 and FINANCE 3580 or consent of instructor. A study of the international dimensions of strategic management. Provides an introduction to the key concepts and tools necessary for international competitive analysis. Topics include the international dimensions of strategy formulation and implementation, diversification, strategic alliances, and divestment.

**INTL BUS 4381 International Logistics And Operations Management: 3 semester hours**

Same as LOG OM 4381. Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of business logistics and supply chain strategies involving shipments across national boundaries. Topics include the effects of international agreements and regional trading blocks on supply chain strategies; the design of global logistics networks; managerial processes and systems for international production and distribution, and risk management for international logistics.

**INTL BUS 5289 International Business Strategies: 3 semester hours**

Prerequisites: BUS AD 5000 and ACCTNG 5400. This course focuses on those managerial issues which follow from the definition and implementation of corporate strategy for worldwide operations, as distinguished from purely domestic firms or those only marginally involved in international activities. It aims to develop an appreciation for the unique competitive, sociocultural and political environments in which international business takes place and the skills required to deal with these changes.

**INTL BUS 5290 Internship In International Business: 3 semester hours**

Prerequisites: Consent of IMBA Director. Students will apply both their language skills and knowledge of international business by working in an organization located outside the student's country of origin. This course requires students to submit regular evaluations and prepare a research report summarizing their global experience and how it relates to the international business program.

**INTL BUS 5381 International Logistics And Operations Management: 3 semester hours**

Same As LOG OM 5381. Prerequisites: LOG OM 5320 A study of international logistics and operations management strategy, planning and operations. Topics may include multinational logistics and supply chain strategies, global network design and sourcing, international transportation, distribution and operations, import-export, risk management, etc.

**INTL BUS 5480 International Accounting: 3 semester hours**

Same as: ACCTNG 5480. Prerequisites: ACCTNG 3402. Accounting practices for multinational businesses. Discussion of comparative financial accounting practices, the development of international accounting standards, and managerial accounting practices related to multinational operations.

**INTL BUS 5780 Seminar In International Marketing: 3 semester hours**

Same as MKTG 5780. Prerequisite: MKTG 5700. An advanced seminar on topics in international or global marketing. Possible topics include the globalization of trade, export marketing, international market opportunity analysis, and negotiation for international marketers. Students who take one version of this course (e.g., globalization of trade) can take a second version of the course (e.g., negotiation for international marketers) with prior permission.

**INTL BUS 6580 International Financial Management: 3 semester hours**

Same as FINANCE 6580. Prerequisite: FINANCE 6500. The objective of this course is to introduce students to financial issues for multinational firms. Besides covering basic tools and techniques, the class stresses the role of the financial manager in analysis and decision-making. Topics include the impact of international accounting and tax issues, capital budgeting in a foreign environment, transfer pricing, and global funding. Conceptual skills for lifelong learning experiences are emphasized. This course employs a lecture and case format with group discussions.

**INTL BUS 6581 Seminar In International Investments: 3 semester hours**

Same as FINANCE 6581. Prerequisite: FINANCE 6500. This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the comprehensive project report. A prior investments course is recommended but not required.

**INTL BUS 6846 Management Of Global Sourcing: 3 semester hours**

Same as INFSYS 6846. Prerequisite: INFSYS 5800. Largely fostered by the spread of the Internet, global software development standards, global software packages, and fewer trade restrictions, organizations now regularly source software development, software maintenance, systems upgrades, platform transitions, help desks, and other IS-related work globally. This course covers topics to help organizations manage global sourcing of IS work, including sourcing strategies, sourcing models (captive, joint venture, outsourcing), role of program management offices, supplier selection, engagement models, and special practices required to manage globally dispersed teams. Risk mitigation practices associated with cultural, legal, political, infrastructure, logistical, and human resource issues are also addressed.

**INTL BUS 6881 Management Of Transnational Information Systems: 3 semester hours**

Same as INFSYS 6881. Prerequisites: INFSYS 5800, INFSYS 6825 (may be taken concurrently). The course presents concepts of managing global information technology. Issues covered include: global information technology, systems development, electronic data interchange, cross-border data flows, and national and international information structures. Further topics may include information technology enabled economic development, global outsourcing of information systems services, and social, organizational and ethical implications.

**INTL BUS 7000 intl bus test: 1 semester hour**

## Logistics and Operations Management Courses

**LOG OM 3300 Business Statistics: 3 semester hours**

Prerequisites: MATH 1100, MATH 1105, INFSYS 1800 and a 2.0 campus GPA. Construction and use of statistical models for business management. Students will learn techniques used for relational analysis and business forecasting and how to apply them in a business context. Tools include CHI-Square tests of statistical independence; analysis of variance; simple linear regression and correlation; multiple linear regression; and extrapolative techniques such as moving averages and exponential smoothing. Emphasis is placed on problem definition, construction of statistical models, analysis of data, and interpretation of results. Computers are used for extensive analyses of case data.

**LOG OM 3320 Introduction To Operations Management: 3 semester hours**

Prerequisites: A 2.0 campus GPA and either (ECON 1001, ACCTNG 2410 and LOG OM 3300) or (MATH 2000 and MATH 1320). An examination of the concepts, processes, and institutions which are fundamental to an understanding of manufacturing and service operations within organizations. Emphasis is on the management and organization of operations and upon the application of quantitative methods to the solution of strategic, tactical and operational problems.

**LOG OM 3349 Project Consulting and Execution: 3 semester hours**

Prerequisite LOG OM 3300 or equivalent and LOG OM 3320 or equivalent (may be taken concurrently). Provides real world experience in planning and executing projects. The class will have teams of students work on projects sponsored by companies and not for profit organizations for 2 to 6 weeks at a time. It will provide students practice in critical thinking, analysis, communication, and other critical skills identified as necessary for employees to function at a high level in their jobs.

**LOG OM 3390 Internship In Logistics And Operations Management: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of LOM electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of Logistics and Operations Management (LOM) where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. An LOM faculty member will monitor the student's program with the student providing a formal written report at the end of the project. LOG OM 3390 may not be counted toward the minimum credit hours for the LOM emphasis.

**LOG OM 3395 Special Administrative Problems - Management Science: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**LOG OM 3398 Seminar in Logistics and Operations Management: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of logistics and operations management. May be repeated for credit with different topics.

**LOG OM 3399 Independent Study In Logistics And Operations Management: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in logistics and operations management under the supervision of a full-time logistics and operations management faculty member.

**LOG OM 4312 Business Forecasting: 3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 or graduate standing; also either LOG OM 3320 or (MATH 3000 and MATH 1320) Further study of statistical tools for forecasting in a decision-making context. Topics include explanatory models (multiple regression), classical time series decomposition, and extrapolative techniques (exponential smoothing and Box-Jenkins procedures). In addition, methods for considering problems of intervention effects, seasonality, and collinearity will be discussed. Students will perform extensive analyses of time series data using computer packages.

**LOG OM 4321 Production and Operations Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. Application of the tools and techniques of statistical decision theory and operations research to production and operating problems. Emphasis is on the use of mathematical modeling and simulation techniques to analyze complex and ill-structured problems in large-scale systems.

**LOG OM 4322 Lean Production In Manufacturing And Service Operations: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320 Study of Lean Production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement techniques, quick set-ups, total productive maintenance, kanban scheduling, cellular production, team organization of workers, supplier relations, quality management, and the environmental aspects of production.

**LOG OM 4324 Service Operations Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial, transportation, hospitality, and governmental services industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management service quality, staffing, and personnel scheduling.

**LOG OM 4325 Environmental Sustainability in Business Operations: 3 semester hours**

Prerequisites: LOG OM 3320 or permission of instructor. This course studies the environmental impacts of business operations, and it focuses especially on the principles and methods of "lean and green" operations, i.e., ways in which organizations can reduce their costs and increase profits, while reducing their environmental impacts. Specific topics include energy efficiency, resource reduction, waste reduction, design for the environment, externalities and internal pricing mechanisms, environmental technologies, life-cycle assessment, recycling, re-use, and re-manufacturing, as well as national and global environmental issues.

**LOG OM 4326 Quality Assurance In Business: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of statistical quality control concepts and procedures applicable to management systems, administrative activities, service industries, and nonprofit organizations. Some successful quality assurance programs will be examined.

**LOG OM 4330 Business Logistics Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. Analysis of business logistics systems, their design, and operation. Topics include: network design, facility location, transportation, vehicle routing, storage and handling capacity planning, inventory management, and customer service.

**LOG OM 4347 Introduction to Project Management: 3 semester hours**

Prerequisites: LOG OM 3320. This course introduces the concepts and practices of Project Management with a focus on Logistics and Operations Management related projects. It will cover conventional aspects of project management, such as the project evaluation, planning, roles, responsibilities, scheduling, and tracking. In addition, this class will introduce agile project management as applicable to projects where there is not the specificity of goals or solutions to be applicable to traditional project management.

**LOG OM 4350 Management Science Methods: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320 or MATH 3000 and MATH 1320. Applications of the theories and techniques of operations research to problems of business, government, and industry with emphasis on the construction and utilization of quantitative decision models.

**LOG OM 4354 Management Science Methods II: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 4350. Topics of special interest including mathematical programming, stochastic decision-making, digital simulation, game theory, and other selected techniques. (Formerly Mathematical programming).

**LOG OM 4381 International Logistics And Operations Management: 3 semester hours**

Same as INTL BUS 4381. Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of business logistics and supply chain strategies involving shipments across national boundaries. Topics include the effects of international agreements and regional trading blocks on supply chain strategies; the design of global logistics networks; managerial processes and systems for international production and distribution, and risk management for international logistics.

**LOG OM 4398 Seminar in Logistics and Operations Management: 1-3 semester hours**

Prerequisites: LOG OM 3320 or permission of the instructor and a minimum 2.0 campus GPA. For some topics additional prerequisites may be required. An intensive study of a specific aspect, problem or technique in the areas of logistics, operations management, or supply chain management. Different topics may be offered under this course number, so the course (with different topics) can be repeated for credit.

**LOG OM 5300 Statistical Analysis For Management Decisions: 3 semester hours**

Prerequisites: INFSYS 5800 (may be taken concurrently) and ECON 4105 with a minimum grade of "C" The role of statistical evidence in the formation of inference and in the selection of strategies in solving business problems is developed. Probability and probability distributions are studied as a basis of statistical inference. An introduction to multivariate analysis is provided, which includes analysis of variance and regression methods.

**LOG OM 5312 Advanced Statistical Methods For Management Decisions: 3 semester hours**

Prerequisites: LOG OM 5300 The application of statistical methods to managerial problems, forecasting and business research. Topics include the blending of multiple regression and analysis of variance into a general linear model, logistic models, techniques for projecting seasonal time series, and forecasting techniques (ARIMA models) which deal with serially correlated data. Through class presentations, assigned exercises and a major project, students gain experience in constructing explanatory and predictive models for problems in marketing, finance, etc. Students use commercial software (e.g. the Statistical Analysis System) for analyzing data, constructing models and producing reports.

**LOG OM 5320 Production And Operations Management: 3 semester hours**

Prerequisites: LOG OM 5300 This course discusses issues related to the creation and delivery of goods and services. Topics include the design of production processes, the layout and location of facilities, forecasting, scheduling, inventory control, queuing, materials planning, and quality control. Analytical techniques such as linear programming are used in studying these problems.

**LOG OM 5322 Lean Production: 3 semester hours**

Prerequisites: LOG OM 5320. Study of Lean Production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement, set-up reduction, total productive maintenance, kanban scheduling, cellular production, work teams, supplier relations, quality management, and the environmental aspects of production. Cases and a course project will be used to integrate and apply the course material.



**LOG OM 5324 Service Operations Management: 3 semester hours**

Prerequisite: LOG OM 5320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial, transportation, hospitality, and governmental services industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management, service quality, staffing, and personnel scheduling.

**LOG OM 5325 Environmental Analysis and Sustainability in Business Operations: 3 semester hours**

Prerequisites: LOG OM 5320 or permission of instructor. This course studies the environmental impacts of business operations, and it focuses especially on the principles and methods of "lean and green" operations, i.e., ways in which organizations can reduce their costs and increase profits, while reducing their environmental impacts. Specific topics include energy efficiency, resource reduction, waste reduction, design for the environment, externalities and internal pricing mechanisms, environmental technologies, life-cycle assessment, recycling, re-use, and re-manufacturing, as well as national and global environmental issues.

**LOG OM 5326 Quality Management: 3 semester hours**

Prerequisites: LOG OM 5300 or MATH 4200 or permission of instructor. An applied course on total quality management. Quality improvement approaches are presented and the managerial implications and responsibilities in implementing these approaches are discussed. Topical coverage includes the construction and interpretation of control charts, graphical methods, quality function deployment, robust experiments for product design and improvement, mistake-proofing (poke yoke), the Deming approach, Baldrige award criteria, quality cost audits, worker empowerment and reward systems. Cases involving both business processes and physical processes are used to illustrate successful quality improvement efforts.

**LOG OM 5334 Internship In Logistics And Supply Chain Management: 1 semester hour**

Prerequisite: Consent of Instructor Students receive practical experience in the area of logistics or supply chain management. The internship is supervised by a professional in the host organization in consultation with a faculty member.

**LOG OM 5340 Transportation Economics for Business Managers: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5000 or permission of the instructor. This course makes use of a range of economic concepts to examine the nature of markets in which transport services are provided. This course is designed for future transportation professionals who wish to explore the fundamentals of economics in their field. Basic concepts covered include the theory of transportation demand, transportation costs and investment planning, and current topics in transportation economics such as regulation-deregulation and social cost pricing.

**LOG OM 5349 Project Consulting and Execution: 3 semester hours**

Prerequisites: LOG OM 5300 or equivalent; LOG OM 5320 or equivalent (may be taken concurrently). Provides real world experience in planning and executing projects. The class will have teams of students work on projects sponsored by companies and not for profit organizations for 2 to 6 weeks at a time. It will provide students practice in critical thinking, analysis, communication, and other critical skills identified as necessary for employees to function at a high level in their jobs. A student may NOT count LOG OM 5349 and an internship toward the LOG OM emphasis. Only one of the two would count.

**LOG OM 5354 Simulation For Managerial Decision Making: 3 semester hours**

Prerequisites: LOG OM 5320. Introduction to simulation as a managerial decision-making aid. Application of simulation to a number of management science-oriented problems. This course introduces and requires use of a simulation language.

**LOG OM 5381 International Logistics And Operations Management: 3 semester hours**

Same as INTL BUS 5381. Prerequisites: LOG OM 5320. A study of international logistics and operations management strategy, planning and operations. Topics may include multinational logistics and supply chain strategies, global network design and sourcing, international transportation, distribution and operations, import-export, risk management, etc.

**LOG OM 5399 Individual Research in Logistics and Operations Management: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Logistics and Operations Management under the guidance of a specific professor.

**LOG OM 6330 Business Logistics Systems: 3 semester hours**

Prerequisites: LOG OM 5320 (may be taken concurrently). Analysis of business logistics systems and their role in supply chain management. covers both design and operation of logistics systems and their components. Topics may include network design, facility location, transportation, vehicle routing, inventory management, customer service, reverse logistics and logistics information systems.

**LOG OM 6331 Logistics And Supply Chain Operational Modeling: 3 semester hours**

Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the operational management of logistics and supply chains. This course covers the economic tradeoffs involved in such decisions, data requirements, operating parameters, and application of software packages to problems such as vehicle routing and scheduling, freight shipments consolidation, cross-docking, and other operational and tactical strategies. This "hands on" course is designed to prepare students for higher-level supply chain analyses and consulting work.

**LOG OM 6332 Logistics And Supply Chain Strategic Modeling: 3 semester hours**

Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the planning and strategic management of logistics networks and supply chains. The course identifies and explores the economic and customer service tradeoffs involved in such networks. Issues such as location of facilities assignment of production and distribution missions to facilities, identification of sourcing relationships amongst facilities, and identification of cost and customer service consequences of alternative supply chain designs are addressed by the application of commercial software packages to support decision making. This "hands on" course is designed to prepare students for high-level supply chain analyses and consulting work.



**LOG OM 6338 Business Processes: Design, Management & Integration: 3 semester hours**

Prerequisites: LOG OM 5320. This course presents the concepts and state of the art / state of the practice of business process design and business process management for improving business performance, effectiveness, quality, customer service and satisfaction. Issues related to characteristics, goals, benefits and costs of enterprise-wide design, and the role of information technology during the design process will be discussed. Specific topics will include: the history and development of process focused businesses and the impacts on processes caused by just-in-time and total quality management philosophies, organizational learning, strategy mapping, et.al. We will also discuss the exploitation of core competencies and changing business scenarios such as globalization and electronic-commerce. We will draw from the literature to explore the notion of moving from business strategies to business processes. We will review current writings relative to the subject, and then will apply our knowledge to actual process design, documentation, analysis and simulation. We will introduce computer-based modeling tools for process design and simulation, and use those tools in both in-class and individual work.

**LOG OM 6345 Business Analytics and Data Mining: 3 semester hours**

Prerequisites: LOG OM 5300 and INFSYS 5800. This course concentrates on methods for converting data into business intelligence. It provides knowledge of the principles and techniques for business analytics and data mining. Topics include clustering, pattern recognition, visualization of relationships, predictive modeling, optimization techniques and simulation.

**LOG OM 6347 LOM Project Management: 3 semester hours**

Prerequisites: LOG OM 5320. This course addresses the concepts and processes of project management as applicable to Logistics and Operations Management. Students study organizational design, project specification, integrated project planning, risk management and project control; students will come to understand how globalization, environmental and sustainability issues, quality control (including industry standard initiatives such as the Continuing Integration Improvement Model and the International Standards Organization model), and cultural factors drive project management. NOTE: Credit may not be earned for both LOG OM 6347 and INFSYS 6847.

**LOG OM 6350 Management Science Methods: 3 semester hours**

Prerequisites: LOG OM 5320. This course provides a working knowledge of management science techniques. It emphasizes analytical approaches to solving business problems, construction of mathematical models, and manipulation of model variables for managerial decision-making. Topics include mathematical programming, including integer and network models, heuristics, and simulation models.

**LOG OM 6395 Seminar In Logistics And Operations Management: 3 semester hours**

Prerequisite: LOG OM 5320 Topics of current interest in logistics and operations management. Topics may include just-in-time and lean production, quality management, manufacturing and service systems, transportation and logistics, quantitative management tools, etc.

**LOG OM 7381 International Supply Chain Management: 3 semester hours**

Prerequisites: LOG OM 5320; Admittance into the Ph.D. Program  
A comprehensive examination of international logistics and supply chain management strategies, planning and operations from the firm's perspective. Topics may include multinational logistics and supply chain issues and management strategies, multinational sourcing and network design, transportation issues in international supply chains, multinational distribution and operations, legal and financial issues in import and export, risk identification and management in international supply chains, and the relationship of supply chain management to other activities of international firms.

**LOG OM 7390 Research Seminar In LSCM: 3 semester hours**

Prerequisites: LOG OM 6330; Admittance into the Ph.D. Program.  
Analysis of research approaches, and findings in Logistics and Supply Chain Management. May be repeated for credit when the subject matter is different.

**LOG OM 7393 Special Topics In LSCM: 3 semester hours**

Prerequisites: Consent of Instructor; Admittance into the Ph.D. Program  
In-depth analysis of special topics in Logistics and Supply Chain Management research. May be repeated for credit when the subject matter is different.

## Management Courses

**MGMT 3600 Management And Organizational Behavior: 3 semester hours**

Same as SOC 3600. Prerequisites: Junior standing and a 2.0 overall GPA. This course involves the study of the behavior of individuals and groups in an organizational setting. Specific topics examined include: motivation, leadership, organizational design, and conflict resolution, as well as basic coverage of management principles. In covering these topics, both "classic" and current perspectives are provided.

**MGMT 3611 Advanced Management And Organizational Behavior: 3 semester hours**

Prerequisites: MGMT 3600 and a 2.0 overall GPA. Building upon MGMT 3600, course provides a more detailed examination of motivation, leadership, group process, decision making, job design, and organizational development. In addition to providing more detail in terms of content, this course provides the student with considerable practical experience through the use of class exercises, case studies, and small group discussions.

**MGMT 3612 Professional Skills Development: 3 semester hours**

Prerequisite: A minimum 2.0 campus GPA and Junior Standing This course focuses on career management. Topics include job search, interviews, resumes and cover letters, presentation skills, business etiquette, entry strategies, and career alternatives.

**MGMT 3621 Human Resource Management: 3 semester hours**

Prerequisites: MGMT 3600 and a 2.0 overall GPA. In-depth examination of selected human resource management issues from a contemporary manager's viewpoint. Topics examined include: employee selection, performance appraisal, training and development, compensation, legal issues, and labor relations.

**MGMT 3622 Industrial And Labor Relations: 3 semester hours**

Prerequisite: MGMT 3600 and a 2.0 overall GPA. Emphasis is on the dynamic relationship between management, employees, unions, and government as determinants in the efficient and effective use of human resources. Current issues and case material are used to supplement text and lecture.

**MGMT 3623 Industrial And Organizational Psychology: 3 semester hours**

Same as PSYCH 3318. Prerequisite: PSYCH 2201 or MATH 1105, MGMT 3600. This course introduces the student to psychological research and theories pertaining to human behavior in the work setting. Topics covered include: selection, performance appraisal, training, leadership, motivation, job satisfaction, and organizational design.

**MGMT 3624 Employee Training And Development: 3 semester hours**

Prerequisites: A minimum overall GPA of 2.0. In addition, MGMT 3600 or permission of instructor. An intensive study of training in organizations, including needs analysis, learning theory, management development, and development of training objectives and programs. Projects and exercises are used to supplement the readings.

**MGMT 3625 Leadership in Organization: 3 semester hours**

Prerequisites: MGMT 3600 and a minimum 2.0 campus GPA. This course introduces classic and contemporary theories of leadership. The emphasis is on building a sound grasp of good practice and on developing the student's ability to apply such knowledge as he/she enters today's global workforce. The course covers key theories and models of effective leadership in organizations.

**MGMT 3680 International Management: 3 semester hours**

Same as INTL BUS 3680. Prerequisites: A minimum 2.0 campus GPA. In addition, ECON 1002 and MGMT 3600; or consent of the instructor. A study of international business and management practices. Topics covered include an introduction to international management and the multinational enterprise, the cultural environment of international management, planning in an international setting, organizing for international operations, directing international operations, international staffing, preparing employees for international assignments, and the control process in an international context.

**MGMT 3690 Internship In Management: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Management electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of Management where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Management faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BA 3690 may not be counted toward the minimum 12 credit hours of management electives required for a MOB emphasis.

**MGMT 3695 Special Admin Problems - Management & Organization Behavior: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**MGMT 3698 Seminar in Management: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of management. May be repeated for credit with different topics.

**MGMT 3699 Independent Study In Management: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in management under the supervision of a full-time management faculty member.

**MGMT 4219 Strategic Management: 3 semester hours**

Prerequisites: Senior standing and FINANCE 3500, MKTG 3700, MGMT 3600; a minimum overall GPA of 2.0.; and concurrent enrollment MGMT 4220. This is a capstone course drawing on the subject matter covered in prerequisite courses. Emphasis is on the formulation and implementation of corporate, business and functional strategies designed to achieve organizational objectives. Topics include the role of top management, globalization of business and ethical perspectives. Case studies and research reports may be used extensively. (It is preferred that this course be taken during the student's final semester.

**MGMT 4220 Business Assessment Testing: 0 semester hours**

Prerequisite: Concurrent enrollment in MGMT 4219, Strategic Management. A one-time lab during which a major field exam in business is administered. Course graded on a satisfactory/ unsatisfactory basis. Satisfactory grade required for graduation.

**MGMT 4614 Entrepreneurship/Small Business Management: 3 semester hours**

Prerequisite: BUS AD 2900, FINANCE 3500, MKTG 3700, MGMT 3600, and a 2.0 overall GPA. This integrative general management course is designed to communicate the academic principles of business management applicable to solving of problems of small and medium-size businesses and assist in their development. This course will provide a background in the forms of business, the development of business plans and systems integration, venture capital, accounting, procurement, promotion, financing, distribution and negotiations for initial organization, and operation and expansion of the firm.

**MGMT 5600 Organizational Behavior And Administrative Processes: 3 semester hours**

Same as P P ADM 6600. The theoretical and research contribution of the behavioral sciences to management and administration are examined and applied to selected organizational situations. Areas to be considered from the standpoint of both individual and organizational performance are communication, motivation, conflict, decision-making, goal setting, leadership, organizational design, climate, development and control. Utilizing a systems perspective, the course attempts to develop in each student an ability to analyze and solve organizational problems.

**MGMT 5611 Advanced Organizational Behavior And Administrative Processes: 3 semester hours**

Prerequisite: MGMT 5600. An indepth examination of selected organizational and individual theories affecting behavior and operating performance. Organizational structure and design, formal and informal organization, decision making, communications and motivation are analyzed for their organizational impact. The course seeks to develop further the ability to analyze and evaluate organizational processes and individual behavior.

**MGMT 5612 Negotiating Workplace Conflict: 3 semester hours**

Same as P P ADM 6680. Prerequisites: P P ADM 6600 / MGMT 5600, and Graduate Standing Examines conflict and cooperation between individuals, groups, and organizations over the control of work. A central theme is how this conflict is expressed, controlled and resolved. Students will participate in exercises to learn the basics of two-party negotiations.

**MGMT 5614 Managing Organizational Change And Design: 3 semester hours**

Prerequisites: MGMT 5600 (may be taken concurrently). This course examines the ways to manage organizational change to meet the rapid pace of change in the business environment. Cases and current research inform class discussions of different types of restructuring. Topics may include creating learning organizations, designing for innovation, managing growth and downsizing, and building sustainable organizations.

**MGMT 5621 Managing Human Resources: 3 semester hours**

Prerequisite: MGMT 5600. In-depth examination of selected of human resource management issues from a contemporary manager's viewpoint. Topics examined include: personnel planning; employee selection; performance appraisal, training, and development; compensation; legal issues; discipline; and labor relations. The course examines these topics as they relate primarily to operational activities in organizations.

**MGMT 5622 Union-Management Relations And Collective Bargaining: 3 semester hours**

Prerequisite: MGMT 5600 and BUS AD 5900. Primary concern is with the setting and the dynamics of contract negotiation and administration. Emphasis is on the development of insight and understanding of the forces affecting the decisions of the parties to a labor contract within the context of the social, political and economic environment of the organization. A dynamic approach is taken to examine difficulties that arise in attempting to administer a collectively established relationship between employer and employee.

**MGMT 5625 Selected Topics In Human Resource Management: 3 semester hours**

Prerequisites: MGMT 5621 and LOG OM 5300. This course provides an advanced treatment of selected human resource management topics. Primary focus is on topics such as job analysis, pre-employment screening devices, test validation, and civil rights laws. Other topics, such as performance appraisal, recruitment, promotions, and terminations may be covered. Various class projects may be assigned to supplement readings, lectures, and discussion.

**MGMT 5695 Seminar In Management: 3 semester hours**

Prerequisites: MGMT 5600 Topics of current interest in management. Possible topics include: human resource management, international management, and entrepreneurship.

**MGMT 5699 Individual Research in Management: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Management under the guidance of a specific professor.

**Marketing Courses****MKTG 3700 Basic Marketing: 3 semester hours**

Prerequisites: ECON 1001, Junior standing and a 2.0 overall GPA. An examination of the character and importance of the marketing process, its essential functions and the institutions performing them. Attention is focused on the major policies (such as distribution, product, price, and promotion) which underlie the multifarious activities of marketing institutions and the managerial, economic, societal implications of such policies.

**MKTG 3710 Consumer Behavior: 3 semester hours**

Prerequisites: MKTG 3700, and a minimum overall GPA of 2.0. A study of such consumer functions as decision-making, attitude formation and change, cognition, perception, and learning. The marketing concepts of product positioning, segmentation, brand loyalty, shopping preference and diffusion of innovations are considered in context with the environmental, ethical, multicultural and social influences on an increasingly diverse American consumer.

**MKTG 3720 Management Of Promotion: 3 semester hours**

Prerequisite: MKTG 3700 and a 2.0 overall GPA. A study of the design, organization and implementation of the marketing "communications mix". Various methods such as advertising, personal selling, and publicity are analyzed as alternatives for use alone, or in combination to stimulate demand, reseller support, and buyer preference. Particular topics considered include: media selection, sales promotionals, packaging, selling strategy and their relationships in the promotion process.

**MKTG 3721 Introduction to Digital Marketing Strategies: 3 semester hours**

Prerequisites: MKTG 3700 and a minimum campus GPA of 2.0. This course explores the world of digital media marketing and how it impacts and is integrated along with our traditional marketing channels. We will explore how the balance of power has shifted between brands and consumers. Consumers are more active in the marketing process and in influencing how brands communicate with them than ever before. In particular we will explore: The latest digital marketing trends, how to build a strong website from an organic perspective, search strategies for success, website intelligence and tracking using Google Analytics, retaining customers via Email marketing, online Display advertising, social media strategy, affiliate marketing, mobile marketing trends and developing an integrated marketing plan.

**MKTG 3722 Introduction to Social Media Marketing: 3 semester hours**

Social networks are becoming an integral part of the marketing mix. In these platforms, brands can engage with prospects and consumers on many levels. In this course you will learn how to create a brand presence on these social networks, understand the differences between earned and paid media, be introduced to the various tools (free and paid) used to listen and engage with consumers, discuss how brands manage healthy communities, learn techniques used social media managers to identify influencers, and study the various ways engagement is measured including calculating social media return on investment. Social networks to be discussed throughout the semester will include Facebook, Twitter, Tumblr, instagram, LinkedIn, etc. Students will also be introduced to the various social measurement tools including Netbase (our partner), HootSuite, tweetdeck, Sprinklr, Technorati, etc. Real life case examples will be used throughout the semester.

**MKTG 3738 Advertising Technique: 3 semester hours**

Same as MEDIA ST 3338. Prerequisites: MEDIA ST 1100 or MKTG 3700 or consent of instructor. Techniques for creating advertising messages and campaigns to reach target audiences. Focus on the process of persuasion, importance of advertising in modern economics, rationale for company advertisement, evaluation of advertising effectiveness, and assessment of advertising myths and truths. Practical application of messages and campaigns will be stressed.

**MKTG 3740 Marketing Analysis: 3 semester hours**

Prerequisites: INFSYS 1800, MKTG 3700, LOG OM 3300, and a 2.0 Overall GPA. An investigation of the acquisition, presentation, and application of marketing information for management. Particular problems considered are defining information requirements, evaluating research findings, and utilizing information. Statistical methods, models, and/or cases are employed to illustrate approaches to marketing intelligence problems, such as sales forecasts, market delineation, buyer motives, store location, and performance of marketing functions.



**MKTG 3750 Sales Management: 3 semester hours**

Prerequisites: MKTG 3700 and MGMT 3600. (MGMT 3600 may be taken concurrently). Also a minimum campus GPA of 2.0. the aim of this course is to provide an understanding of how selling is critical to the success of marketing. The course will promote critical thinking skills as well as practical selling skills needed in a competitive marketplace. Course topics include, among others, selling principles & techniques, understanding of the tasks and roles of the sales manager, the management of sales professionals within an organization, developing and applying effective persuasive communications, creating a vision, developing and implementing a sales-team strategy, structuring sales-force, designing and assigning territories, recruiting, training, motivation and evaluating salespeople, methods of compensation, and forecasting sales. The emphasis will be on ways the sales-force can be molded to build long-lasting relationships with customers through the systematic analysis and solution of customer's problems.

**MKTG 3760 Business To Business Marketing: 3 semester hours**

Prerequisites: Senior standing, MATH 1105, MKTG 3700 and a 2.0 overall GPA. A study of the nature of the business-to-business (organizational) marketplace, concentrating on those aspects that differentiate it from consumer markets. The major focus of the course is marketing strategy, starting with analysis of the market wants and segments, concepts of pricing, the distribution arrangements, and buyer/seller relations. In this last area, consideration will be given to service, personal selling, sales promotion, and advertising, as found in the organizational marketplace. At all times emphasis is given to relating business-to-business marketing strategy to basic concepts in underlying business disciplines. Lectures and case discussions are used heavily in the course.

**MKTG 3770 Introduction To Transportation: 3 semester hours**

Prerequisite: A minimum campus GPA of 2.0; also Junior standing or instructor consent. This course provides an overview of the transportation sector, including history, providers, users, and government regulation. The importance and significance of transportation, the operational aspects of transportation modes of rail, water, motor, air and pipeline; the demand and supply of transportation, and the managerial aspects of these modes of transport will be covered in the course.

**MKTG 3771 Traffic And Transportation Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and Junior standing or instructor's consent. This course focuses on the purchase of transportation and warehouse services and/or the operation of transportation services as a firm activity. This course is also designed to provide the student with an exposure to the managerial aspects of transportation management as a function of the firm's logistical strategy. In addition, it includes an introduction to the management of firms with the various transportation modes of rail, motor, air, water, and pipelines. This course is designed to provide the student with a basic understanding of the issues and work performed by traffic managers and the management of modern transportation firms.

**MKTG 3776 Transportation Security, Safety and Disaster Preparedness: 3 semester hours**

Prerequisites: Junior standing or instructor's consent. This course emphasizes security issues related to the nation's highway, aviation, pipeline, inland waterway, transit, and rail networks, as well as port facilities. This course provides an overview of transportation safety issues including passenger and employee safety and hazardous materials. Strategies to prepare for transportation-related disasters in addition to the transport of people and goods after terrorism events or natural disasters are also addressed.

**MKTG 3777 Aviation in American Life: 3 semester hours**

Prerequisites: Junior standing or instructor's consent. This course focuses on the history and business of aviation in the United States from balloon flights preceding the Wright brothers through the terrorist attacks in September 2001 with emphasis upon how aviation and aviators have influenced American society, culture. Themes include the evolution of aviation technology, the growth of the commercial/military aviation/aerospace industries, issues of race and gender in aviation, the development of America's commercial airlines, aviation's influence upon American art, films, advertising, and literature, the significance of the space race, and the role of aerial weapons of war.

**MKTG 3780 International Marketing: 3 semester hours**

Same as INTL BUS 3780. Prerequisites: MKTG 3700 and a 2.0 overall GPA. Marketing management problems, techniques and strategies needed to apply the marketing concept to the world marketplace. Understanding a country's cultural and environmental impact on the marketing plan is emphasized, as well as competing in markets of various cultures. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, and current economic and marketing issues are examined.

**MKTG 3785 Women in International Entrepreneurship: 3 semester hours**

Prerequisites: MKTG 3700; MKTG 3780 or INTL BUS 3780; and Junior standing. This course is an integration of international business and entrepreneurship, with a focus on women entrepreneurs. It is designed to help students learn how entrepreneurs create and grow their ventures internationally. We will examine how entrepreneurs search, evaluate, and exploit opportunities across national boundaries to market goods and services effectively. We will explore the unique circumstances faced by women entrepreneurs and the appropriate strategies developed in order to sustain international growth.

**MKTG 3787 Marketing in the European Union: 3 semester hours**

Same as INTL BUS 3787. Prerequisites: MKTG 3780 or instructor's permission. The European Union (EU) is both a major customer and major competitor of the United States. The inclusion of many of the Eastern European countries into the EU has added another challenge to our ability to trade in this area. The better we understand the people, institutions and policies of the EU, the better positioned we will be to conduct business effectively. This course will emphasize understanding the institutional structure that unites the European Union as well as the cultural and political diversity of its members, and provide insights into how business activity functions in the European Environment.

**MKTG 3790 Internship In Marketing: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Marketing electives and have consent of supervising marketing instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of Marketing where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Marketing faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BA 3790 may be counted toward the minimum credit hours of marketing electives required for a marketing emphasis.

**MKTG 3795 Special Administration Problems - Marketing: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.



**MKTG 3798 Seminar in Marketing: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of marketing. May be repeated for credit with different topics.

**MKTG 3799 Independent Study In Marketing: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in marketing under the supervision of a full-time marketing faculty member.

**MKTG 4700 Marketing Management: 3 semester hours**

Prerequisites: MATH 1105, MKTG 3700, three other marketing elective courses, senior standing, and a 2.0 campus GPA. An intensive analysis of major marketing decisions facing the firm, such as level, mix, allocation, and strategy of marketing efforts. Specific decision areas investigated include market determination, pricing, physical distribution, product policy, promotion, channel management, and buyer behavior. Competitive, political, legal, and social factors that may affect such areas of decisions are discussed. Cases, models, and problems are used heavily.

**MKTG 5700 Contemporary Marketing Concepts: 3 semester hours**

Prerequisite: BUS AD 5000. Designed for students with no prior course work in the field of marketing. A wide spectrum of marketing institutions and activities is covered. The impact of marketing on the total firm, the economy, and society in general is assessed. The course is intended to develop and organize the fundamental marketing concepts necessary to an analytical study of consumer behavior, the economic environment and four managerial aspects of marketing. The acquisition and utilization of marketing research data for problem solving is stressed. Relation and integration of basic marketing knowledge to the successful development of sound marketing policy, planning, and strategy is developed.

**MKTG 5701 Marketing Planning And Strategy: 3 semester hours**

Prerequisite: MKTG 5700. Emphasizes the development of a total marketing program through an analytical study of the marketing-mix, the diagnosis of the business situation, along with the influence of exogenous variables and the development of an effective overall marketing strategy. Stresses importance of an integrated marketing plan and utilizes modern decision-making tools. Supplementary readings, journal articles, and current periodicals are used to place the theoretical framework of the course into the contemporary environment of the market place.

**MKTG 5710 Consumer Motivation And Behavior: 3 semester hours**

Prerequisite: MKTG 5700. An analysis of the socio-psychological foundations of consumer behavior including personality differences, needs and wants, status symbols, social change and mobility, fads and fashions. Consumer spending and saving habits, product preferences, leisure-time patterns, shopping behavior and motivation research also are examined for their impact on advertising, selling and marketing management.

**MKTG 5720 Marketing Communications: 3 semester hours**

Prerequisite: MKTG 5700. Deals with managerial decision making by placing particular emphasis on assimilating and integrating all forms of marketing communication in the development of promotional policies, plans and procedures. Course approach is analytical rather than descriptive in investigating the areas of advertising, public relations, sales management, packaging and other forms of demand stimulation.

**MKTG 5730 Clinical Study in Digital and Social Media Marketing: 3 semester hours**

Prerequisites: MKTG 5721 or MKTG 5722 or consent of instructor if prior digital/social media experience. This course, in partnership with Capital Innovators, provides students the opportunity for experiential learning by directly applying classroom topics to the real world. Students will be paired up with a new startup business in their current class and, over the course of the semester, contribute to their digital and social media marketing strategies by assisting in specific project tasks. Other mutually agreed upon areas of responsibility may be assigned as necessary. This is not an internship but rather a project support based clinical course providing very valuable learning in the very vibrant entrepreneurial startup world. It will be instructor led with weekly class meetings.

**MKTG 5731 Special Seminar in Digital and Social Media Marketing: 3 semester hours**

Prerequisites: MKTG5721 or MKTG5722 or consent of instructor if prior digital/social media experience. In this course, the students will be attending three special 2- or 3-day seminars discussing focused topics in Digital and Social Media Marketing. Seminar topics include Mobile Strategy, Email Marketing, Blogs to Buzz, Online Display Advertising, and Strategic Search Engine Marketing. This course may be offered on a weekend schedule.

**MKTG 5740 Marketing And Business Research: 3 semester hours**

Prerequisites: MKTG 5700 and LOG OM 5300. A broad approach to marketing research as a model for acquiring, retrieving, and analyzing decision-making information. Includes market measurement, evaluation of sales and cost effectiveness, sales forecasting and primary marketing research studies aimed at solving specific problems. Emphasis is placed also on building a theoretical and analytical framework to provide flexibility in the design of marketing experiments and in judging recent research innovations.

**MKTG 5761 Business To Business Marketing: 3 semester hours**

The course provides graduate students with an understanding of the role of business to business marketing as it pertains to business, government, and institutional customers. The course places a heavy emphasis on buyer-seller interaction embodying business to business marketing. In addition to discussing the standard theories and covering the subject domain of business marketing, the course focuses on the finer aspects of business to business marketing negotiations using exercises and readings. Student groups enact complex industrial buyer-seller negotiations striving to achieve their respective organizational goals.

**MKTG 5770 Supply Chain Management Strategy: 3 semester hours**

Prerequisite: Consent of instructor. Course addresses supply chain management and its implications, with a focus on what firms can do to maintain competitiveness in the quickly changing business landscape. Topics may include, but are not limited to, value chain analyses, marketing business-to-business, supply chain analytics, procurement, production, logistics, and inventory management within supply chains.

**MKTG 5775 Domestic Transportation: 3 semester hours**

Domestic Transportation is the study of North American transportation modes, their management and operating characteristics. This graduate course is part of the Mid-West Transportation Consortium where UMSL, along with 5 other Universities, provides guest lectures that comment on aspects of transportation. UMSL students concentrate on the business aspects of transportation.

**MKTG 5780 Seminar In International Marketing: 3 semester hours**

Same as INTL BUS 5780. Prerequisite: MKTG 5700 An advanced seminar on topics in international or global marketing. Possible topics include the globalization of trade, export marketing, international market opportunity analysis, and negotiation for international marketers. Students who take one version of this course (e.g., globalization of trade) can take a second version of the course (e.g., negotiation for international marketers) with prior permission.

**MKTG 5790 Internship in Marketing: 3 semester hours**

Prerequisites: Students must have completed and/or be enrolled in at least 6 credit hours of marketing electives and have consent of supervising faculty member and Area Coordinator. Students work in the field of Marketing where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. The student's program will be monitored by a Marketing faculty member with the student providing a formal report at the end of the project.

**MKTG 5795 Seminar In Marketing: 3 semester hours**

Prerequisites: MKTG 5700 This course addresses advanced problems in contemporary marketing. Topics may include, but are not limited to, marketing strategy, marketing communications and advertising, product management, consumer behavior, channels of distribution, international marketing, and marketing research.

**MKTG 5799 Individual Research in Marketing: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in marketing under the guidance of a specific professor.

## Quantitative Management Science Courses

**QN MGT S 6360 Advanced Operations Research Applications: 3 semester hours**

Prerequisite: LOG OM 5350. Application of operation research techniques to business problems. After a brief review of these techniques, followed by an examination of typical applications reported in the literature, the major portion of the term is spent in analyzing and solving an actual business operations research problem. A team approach is used, with groups of two or three students responsible for finding and solving an operations research problem in a local company. Primary emphasis is placed on the use of operations research techniques to solve management problems.

# College of Education

## College of Education Home Page

## About the College

The College of Education is a comprehensive college offering a variety of programs at all levels that lead to exciting and rewarding career opportunities. It takes many types of education professionals to prepare our children, youth and adults for an ever-changing world. The College's faculty, staff, and community partners are committed to providing experiences to build the knowledge and skills needed for individuals to be successful in multiple education settings and occupations. These careers include teachers, principals, and superintendents for K-12 districts, schools, and classrooms; teachers and administrators for informal education organizations like museums, zoos, and nature centers; counselors and mental health professionals for schools, hospitals, corporate employee assistance programs, clinics, and private settings; (adult educators and trainers for a variety of career and vocational centers); and higher education leaders and instructors for community colleges, career technical schools, and four-year colleges and universities.

The College has 50 full-time faculty, of which 14 are endowed professors and three are Curator's Teaching Professors, and over 120 part-time faculty with years of direct classroom experience. The College offers six undergraduate degrees, 32 undergraduate and post-baccalaureate teaching certificates, seven Masters degrees, many graduate certificate programs, two Educational Specialist degrees, and two Doctoral degrees. By reaching out and partnering with a vast array of educational, business and community resources, our College can provide opportunities for faculty and students to develop professional connections for improving their careers as well as their communities.

### Support Services

Student support is provided through the **Office of Advising and Student Services (OASIS)**, 116 South Campus Classroom Building. This office houses professional academic advisors who assist students in meeting the requirements for state teacher certification as well as meeting degree requirements.

The **Office of Clinical Experiences and School Partnerships**, 121 South Campus Classroom Building, houses professional staff who coordinate teacher education clinical experiences.

### Accreditation

The College of Education is fully accredited by the National Council for Accreditation of Teacher Education, now called the Council for the Accreditation of Educator Preparation, and the Department of Elementary and Secondary Education for the preparation of early childhood, elementary, middle, secondary, physical, and special educators and of administrators, counselors, and school psychologists. Additionally, the Council for Accreditation of Counseling and Related Educational Programs accredits our Counseling programs and the National Association for School Psychology accredits our School Psychology program.

### Centers and Initiatives

The College hosts many centers and initiatives that enhance the experience of students in our programs. Among these are: the Center for Character and Citizenship; The Center for the Research and Study of Disability, Education, and Culture; the E. Desmond Lee Technology and

Learning Center; the Gateway Writing Project; the Richard Burnett Literacy Clinic; Math and Science Education Central; the School and Family Counseling Center; the Urban Leadership Initiative; and the University Child Development Center. We also sponsor five charter schools.

### Course Designations in the College of Education

The following abbreviations are used to indicate instructional areas in the course listings and descriptions in the College of Education.

Adult Education Courses (**ADULT ED**)  
 Counselor Education Courses (**CNS ED**)  
 Early Childhood Education Courses (**ECH ED**)  
 Educational Administration Courses (**ED ADM**)  
 Educational Foundations Courses (**ED FND**)  
 Educational Psychology Courses (**ED PSY**)  
 Educational Research and Evaluation Methods Courses (**ED REM**)  
 Educational Technology Courses (**ED TECH**)  
 Elementary Education Courses (**ELE ED**)  
 Middle Education Courses (**MID ED**)  
 Higher Education Courses (**HIGHERED**)  
 Health and Physical Education Courses (**HLTH PE**)  
 Physical Education (**PHY ED**)  
 College#Wide Education Courses (**EDUC**)  
 Secondary Education Courses (**SEC ED**)  
 Special Education Courses (**SPEC ED**)  
 Teacher Education Courses (**TCH ED**)

## Teacher Education

### Degrees and Areas of Concentration

Students may earn teacher certification in the fields of elementary education/special education, elementary education/TESOL endorsement, early childhood education/early childhood special education, middle school, music education, physical education special education (cross categorical), art education, as well as the secondary education areas of biology, chemistry, English, foreign languages (French, German, Spanish), mathematics, physics, and social studies. Students with a Bachelor's degree can combine educator preparation and Master's work in selected areas. Graduate programs leading to certification are also offered in counseling, reading, school administration (elementary and secondary principal, school superintendent), and special education.

The following certification programs are designed to provide the following learning outcomes. Upon successful completion of the programs, education candidates will:

- Understand the central concepts, tools of inquiry and structures of the discipline(s) within the context of a global society and create learning experiences that make these aspects of subject matter meaningful for students.
- Understand how students learn and develop, and provide learning opportunities that support the intellectual, social, and personal development of all students.
- Understand how students differ in their approaches to learning and create instructional opportunities that are adapted to diverse learners.
- Recognize the importance of long-range planning curriculum development and develop, implement and evaluate curriculum based upon student, district, and state performance standards.
- Use a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

- Use an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.
- Model effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.
- Understand and use formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.
- Develop skills to become a reflective practitioner who continually assesses the effects of choices and actions on others. This reflective practitioner actively seeks out opportunities to grow professionally and utilizes the assessment and professional growth to generate more learning for more students.
- Foster relationships with school colleagues, parents, and educational partners in the larger community to support student learning and well-being.
- Understand theories and applications of technology in educational settings and have adequate technological skills to create meaningful learning opportunities for all students.
- Also, education candidates upon successful completion of their program, master DESE professional standards.
- Submission of qualifying scores on a qualifying exam approved by the Missouri Department of Elementary and Secondary Education in areas of English, writing, mathematics, science and social studies. Students should consult OASIS for test descriptions, cost, required scores, dates of administration, retest policies, etc. (Students who have an earned bachelor's degree are not required to pass the qualifying exam. Graduates of the general studies program or the Bachelor of Educational Studies program at UMSL, however, must take the qualifying exam).
- Completion of 60 hours of college or university courses (at UMSL or another accredited school).
- A grade point average of 2.6 or higher.
- Approved results of the Family Care Safety Registry.
- A clear TB test or chest x-ray, if appropriate.

## General Education Requirements

Students in the College of Education must meet university and departmental general education requirements (<http://bulletin.umsml.edu/generaleducationrequirements>) specified for their degree programs.

## Academic Residence

Students must be in residence for 30 of the last 30 semester hours of credit. Courses graded on a satisfactory/unsatisfactory basis are not accepted within these last 30 semester credit hours. This residency requirement applies to students seeking a degree or teacher certification.

## Education Majors

Professional education courses must be completed with a grade point average of 2.5 and no grade lower than a C (2.0).

Beginning with those students graduating in May, 2017 and receiving teacher certification, the Missouri Department of Elementary and Secondary Education requires a 3.0 GPA in professional education courses, a 3.0 GPA in the teaching content field, and a 2.75 overall GPA.

## Admission to the College of Education

Any students who designate education degree programs as their intended degree paths will have Education as their assigned academic unit. Students admitted to the College of Education and seeking teacher certification must also be admitted to the Teacher Education Program.

## Application and Admission to the Teacher Education Program

The application can be found at <http://coe.umsml.edu/portal>

All students (pre- and post-degree) who wish to become teachers must be admitted to the Teacher Education Program. Applications to the Teacher Education Program are processed through the Office of Advising and Student Services (OASIS). Eligibility is based upon fulfillment of the following requirements:

- Submission of qualifying scores on a qualifying exam approved by the Missouri Department of Elementary and Secondary Education in areas of English, writing, mathematics, science and social studies. Students should consult OASIS for test descriptions, cost, required scores, dates of administration, retest policies, etc. (Students who have an earned bachelor's degree are not required to pass the qualifying exam. Graduates of the general studies program or the Bachelor of Educational Studies program at UMSL, however, must take the qualifying exam).
- Completion of 60 hours of college or university courses (at UMSL or another accredited school).
- A grade point average of 2.6 or higher.
- Approved results of the Family Care Safety Registry.
- A clear TB test or chest x-ray, if appropriate.

## General Information

It is important that students meet with an academic advisor in the Office of Advising and Student Services once each semester. Students should contact the office at 314-516-5937 to make an advising appointment.

## Practica Semesters

All teacher certification program students, except for those enrolled in music education, participate in a year-long practica in teaching. Students complete one electronic application two semesters prior to Practicum I for both the Practicum I and Practicum II. Practicum I is a three credit hour course for all programs except Physical Education. The PE internship is a two credit hour course. Practicum I is taken the semester before Practicum II and involves one or two full days each week at the school site. During the following Practicum II semester, students attend their site full time, four or five days per week. Practicum II is 12 credit hour course. Post-degree certification students seeking a Master's degree should consult an advisor.

## Application to Practica

The application can be found at <http://coe.umsml.edu/portal>. Deadlines for the Formal Application are May 31 for January Practicum I candidates, December 31 for August Practicum I candidates and June 30 for post-degree certification candidates starting in August.

Upon receipt, formal applications for both pre- and post-degree students are checked to ensure they have met the following requirements:

- Admission to the teacher education program for both pre and post degree students.
- A cumulative grade point average of at least 2.6 or above by the semester prior to the semester in which students plan to student teach. A 2.75 grade point average must be attained in order to graduate with a B.S. in education degree and/or be certified to teach in the state of Missouri. A 3.0 grade point average must be attained in professional education courses.
- Grade point average of 3.0 in the teaching field (secondary education students only).
- A grade of C or higher in all professional education courses. Lists of these courses are available in the OASIS office and from advisers.
- Completion of TB screening, Missouri Family Care Safety Registry check, FBI check and Missouri substitute certificate.
- Undergraduate students are required to have passed all sections of the qualifying exam designated by the Missouri Dept. Of Elementary and Secondary Education



The Practicum II experience in art, music, and physical education provides opportunities in a variety of settings. Students will be expected to student teach on a full-day basis for 15-weeks during an entire semester. The Practicum II must be completed in residence. Secondary student teaching in science education, mathematics education, middle school, art, and foreign language education is offered during the winter semester only.

For further information regarding requirements and certification, contact the Office of Advising and Student Services, 314-516-5937, 116 SCCB or the College of Education Advising Home Page (<http://coe.umsl.edu/w2/Advising%20-%20OASIS>).

## Application for Degree and/or Certificate

### Bachelor of Science in Education (B.S. Ed)

Candidates for the B.S.Ed. degree must complete degree and certificate application forms in the Office of Advising and Student Services when they apply for admission to Practicum or during the semester before the one in which they expect to finish degree requirements. See information below on the state-required exit examination.

### Bachelor of Educational Studies (B.E.S.)

Candidates should consult the Office of Advising and Student Services or (314) 516- 5397 for more information. This degree offers three areas of study: Early Childhood, Exercise Science, and Professional Studies. **It does not qualify students for Missouri Teacher Certification.**

### Certification

In cooperation with the Missouri State Department of Elementary and Secondary Education, the College of Education is responsible for recommending all qualified students for state teacher certification.

All individuals must pass the appropriate exit assessment and/or certification requirements. This exam should be taken during the semester immediately prior to Practicum II.

## Graduate Level Certification Program

Applicants who hold a Bachelor's degree can enroll in this program to earn secondary education certification. Coursework is determined by the College of Education advisers and Arts and Sciences joint appointee faculty members. The following are education course requirements:

#### Coursework includes:

TCH ED 5310	Instructional Design (includes 14 clock hours of field experience)	3
TCH ED 5311	Foundations Of Education (includes 10 clock hours of field experience)	4
ED PSY 6109	Learning And Development In Secondary School Settings (includes 8 clock hours of field experience)	4
TCH ED 5312	Differentiated Instruction (includes 12 clock hours of field experience)	4
SEC ED 4989	Practicum I: Site Based Experience (includes 84 clock hours of field experience)	3
SEC ED 4990	Practicum II: Site Based Experience (full days in a school for one semester)	12

Students seeking certification via this program must meet with an OASIS advisor to plan specific programs and review requirements. Students may contact an advisor at 314-516-5937. Students can combine this work with Master's degree.

## Graduate Studies in Education Degrees and Areas of Emphasis

The College of Education offers Master of Education (M.Ed.), Educational Specialist (Ed.S.), and doctoral degrees at the graduate level. The M.Ed. degrees and the emphasis areas are:

#### Adult and Higher Education

- Adult Education
- Higher Education

#### Counseling

- Community Counseling
- Elementary School Counseling
- Secondary School Counseling

#### Educational Administration

- Community Education
- Elementary Administration
- Secondary Administration

#### Elementary Education

- Early Childhood Education
- General emphasis
- Reading emphasis

#### Secondary Education

- Curriculum and Instruction
- General
- Middle Level Education
- Reading
- Teaching English to Speakers of Other Languages

#### Special Education

- Autism & Development Disabilities
- Cross Categorical Disabilities
- Early Childhood/Special Education

#### Educational Psychology

Courses are available for areas of specialization within the M.Ed. programs, including educational technology, physical education, and the various secondary school subject areas.

Ed.S. degree programs are available in school psychology and educational administration.

Programs leading to the Ph.D. degree are offered in the areas of Counseling, Educational Psychology, Teaching-Learning Processes, and Educational Leadership and Policy Studies. The Ed.D in Educational Practice admits students to the thematic learning communities announced in January for study commencing the following fall.

## Master of Education Degree

The Masters of Education Degree programs are designed for graduates to attain the following learning outcomes:

- Understand the major theories in the discipline of study.
- Attain a solid foundation in the overall field of education in general, including areas of social justice, educational leadership and advocacy, educational psychology and research.
- Attain a depth of knowledge in the primary discipline.
- Think critically.
- Develop skills as a reflective practitioner to be able to create and sustain change.
- Conduct teacher research.

## Admission and General Requirements

The College of Education follows Graduate School policies relating to admissions, academic standards, residency, transfer credit, time limitations, and thesis options (see Graduate Study in this Bulletin). In addition to meeting the general requirements of the Graduate School, applicants for school or community counseling must complete a separate application (see graduate studies in the Counseling division in this Bulletin). The minimum number of hours required for the M.Ed. degree is 33 except that the elementary, secondary counseling emphases required 48 hours and the mental health emphasis required 60 hours. The school has adopted a flexible policy on exit requirements, which are determined departmentally.

## Advisement and Program Planning

Upon acceptance, each student is assigned a faculty advisor but should make an advising appointment for their first semester only with an OASIS advisor. A faculty advisor counsels the student in registration and program planning thereafter. A program for master's degree form must be completed during the first semester of the student's program. This form includes all course work in the program and the exit requirement.

Students working toward teacher and/or school service personnel certification as graduate students should complete state certification forms in the OASIS one year before those requirements will be completed.

## Educational Specialist Degree

The Ed.S. degree is intended for school personnel preparing for a specific role, either that of a school psychologist or that of a school building or district administrator. The programs require 60 hours of postbaccalaureate course work designed to meet the respective Missouri certification requirements. The Ed.S. in School Psychology degree program requires three years of intensive, full-time, training but students may be able to complete up to half of the curriculum as a part-time student. The Ed.S. in Educational Administration can be pursued on a part time or a full time basis and can include credits taken in an M.Ed. in Educational Administration program.

The Educational Specialist Degree program is designed for graduates to attain the following learning outcomes:

- Expand their knowledge of the major theories in their area of specialty.
- Attain a solid foundation in the field of education in general and a depth of knowledge in the specialty.
- Think critically.
- Develop skills to become a reflective practitioner.
- Mentor teachers and other practitioners as a specialist in a specific area.
- Understand research methods in education.
- Conduct research.

- Demonstrate leadership skills and attributes.

## Admission and General Requirements

The College of Education follows Graduate School policies relating to admissions, academic standards, residency, transfer credit, time limitations, and exit requirements. Specific materials required for application vary by program, but generally applicants should submit an application to The Graduate School, transcripts of previous college work, and letters of recommendation.

## Advisement and Program Planning

For advising and program planning, school psychology students should contact the Division of Educational Psychology, Research and Evaluation, 402 Marillac Hall, 314-516-5783. Educational administration students should contact the Division of Educational Leadership and Policy Studies, 269 Marillac Hall, 314-516-5944.

## Doctor of Education in Educational Practice Degree

The Ed.D. in Educational Practice degree is designed for educational practitioners interested in: (1) leading critical analyses of existing problems of practice and (2) proposing solutions to those problems of practice that can be assessed for effectiveness. Students are admitted to a learning community of practice, under the mentorship of a faculty team, that focuses on an area of educational practice (theme).

The Ed.D. in Educational Practice is designed for graduates to attain the following learning outcomes, based on the Carnegie Project on the Education Doctorate-inspired principles for the professional practice doctorate in Education:

- Constructs and applies knowledge to make a positive difference in educational environments
- Demonstrates collaboration and communication skills in working with diverse communities and in building partnerships
- Possesses a professional knowledge base that integrates practical and research knowledge
- Links theory with systemic and systematic inquiry
- Generates, transforms, and uses professional knowledge and practice
- Understands the value and function of building a community of practice
- Generates solutions to complex problems of practice that are equitable, ethical and socially just

Students seeking the Ed.D. degree are expected to meet the Graduate School's (p. 430) relevant practitioner doctoral degree requirements and procedures.

## Degree requirements

<b>1. Learning Community of Practice Seminars</b>	15-20
EDUC 7600	Learning Community of Practice I
EDUC 7610	Learning Community of Practice II
EDUC 7620	Learning Community of Practice III
EDUC 7630	Learning Community of Practice IV
EDUC 7640	Learning Community of Practice V
EDUC 7650	Learning Community of Practice VI
<b>2. Laboratory of Practice</b>	
EDUC 7889	Laboratory of Practice
<b>3. Common Courses</b>	8

EDUC 7605	Scholarship of Teaching and Learning in Educational Practice	
EDUC 7615	Evaluation of Educational Programs	
EDUC 7625	Building Socially Just Educational Communities	
EDUC 7635	Ethical and Legal Issues in Educational Practice	
<b>4. Inquiry Approach Electives, minimum 4 hours selected from the following:</b>		<b>4</b>
EDUC 7205	Action Research for Educational Practitioners	
EDUC 7210	Survey Design for Educational Practitioners	
EDUC 7215	Data Analysis for Educational Practitioner	
EDUC 7220	Designing Research for Educational Practitioners	
EDUC 7225	Ethnography for Educational Practitioners	
EDUC 7230	Interviewing for Educational Practitioners	
EDUC 7295	Inquiry Seminar for Educational Practitioners	
<b>5. Tool Course Electives, minimum 4 hours selected from the following:</b>		<b>4</b>
EDUC 7305	Representing Data for Educational Practitioners	1
EDUC 7310	Integrating Technology in Learning for Educational	1
EDUC 7315	Project Management for Educational Practitioners	1
EDUC 7320	Financial and Budgeting Skills for Educational Practitioners	1
EDUC 7325	Grant Writing for Educational Practitioners	1
EDUC 7330	Human Relations Skills for Educational Practitioners	1
EDUC 7395	Tool Seminar for Educational Practitioners	1
<b>6. Specialization</b>		<b>30-60</b>
Courses in an area of specialization (can include Master's or Education Specialist work)		
<b>7. Dissertation in Practice</b>		<b>8</b>

**Total:** minimum 80 hours, post-bacclaureate

## Doctor of Education Degree

The Ed.D. degree is a research degree for practitioners and prepares professional leaders who are competent in identifying and solving complex problems in education. Four emphasis areas embrace general categories of professional activities: Educational Administration; Adult & Higher Education; Teaching-Learning Processes; and Counselor Education. The Educational Administration emphasis permits students with Ed.S. degrees in Educational Administration to complete the research course and dissertation requirements for a doctorate.

The Ed.D. program is designed for graduates to attain the following learning outcomes:

- Understand the major theories in their primary and secondary disciplines.
- Attain a solid foundation in the field of education in general and a depth of knowledge in the primary discipline.
- Think critically.
- Locate literature in the primary and secondary disciplines.
- Understand research methods in education.
- Conduct research.
- Demonstrate leadership skills and attributes.

Students seeking the Ed.D. degree are expected to meet the Graduate School's doctoral degree requirements and procedures.

## Admission and General Requirements

In addition to meeting the application and admissions requirements of the Graduate School, students must submit three letters of recommendation (two letters must be from individuals with an earned doctorate, preferably prior instructors), along with a professional resume. Because enrollment is competitive, admission standards are comparatively high. Successful candidates must exhibit significantly above-average academic records and GRE scores. In exceptional cases, other criteria may outweigh these customary indicators of probable academic success. Applicants to the Counselor Education option are considered once per calendar year with an application deadline of December 1st. Applicants for the other options are considered twice per year with application deadlines of October 1st and March 1st.

At least two years of teaching or other school service experiences are required for admission. Exceptions may be made by substituting a supervised internship during the first year of the program.

## Admission Application

To ensure time for review and decision, applicants must complete the Graduate School's and program applications and submit accompanying materials in a timely manner. In addition, applicants are urged to request transcripts and letters of recommendation two weeks before completing the online application. Consideration of applications cannot be undertaken until all materials are available.

## Degree Requirements <sup>1</sup>

**1. Foundations** 12  
12 hours from the following: 12

philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction and supervision.

**2. Research Methods** 12

Students in the Educational Administration, Adult and Higher Education, and Teaching-Learning Processes options should complete the following or equivalent in order: <sup>2</sup>

ED REM 6735 Statistical Analysis For Education Research (pre-requisite)

ED REM 6750 Advanced Research Design In Education (p. 313)

Plus any two methods courses from the following:

ED REM 7771 Quantitative Research Methods I (p. 313)

ED REM 7772 Quantitative Research Methods II (p. 313)

ED REM 7781 Qualitative Methods In Educational Research I (p. 313)

ED REM 7782 Qualitative Methods In Educational Research II (p. 313)

For Ph.D. students in the Counseling emphasis area, the recommended sequence is:

ED REM 6718 (p. Psychoeducational Assessment And Intervention 313) 3

ED REM 7771 Quantitative Research Methods I (p. 313)

ED REM 7781 Qualitative Methods In Educational Research I (p. 313)	
Select one of the following:	
ED REM 7772 (p. 313) Quantitative Research Methods II	3
ED REM 7782 Qualitative Methods In Educational Research II (p. 313)	
<b>3. Common doctoral seminars</b>	<b>6</b>
EDUC 7050 The Research Process I:Framing Research Questions Within Educ Lit (p. 313)	
or CNS ED 7026 Seminar In Counseling Research (p. 313)	
EDUC 7950 (p. 313) Research Process II: Developing & Refining Ed Research Proposals	3
<b>4. Major Specialization</b>	<b>21-39</b>
<b>Educational Administration Option</b>	
Educational Administration (ED ADM) or other courses selected in consultation with the advisory committee, including internship (3-9 hours)	
<b>Adult and Higher Education Option</b>	
Adult Education (ADULT ED) or Higher Education (HIGHERED) or other courses selected in consultation with the advisory committee, including internship (3-9 hours)	
<b>Teaching-Learning Processes Option</b>	
Teacher Education (TCH ED) courses or courses in education in a teaching field, including courses on curriculum construction and the design and improvement of instruction, all selected in consultation with the advisory committee, including internship (3-9 hours)	
<b>Counselor Education Option(30 hours)</b>	
CNS ED 6410 (p. 313) Advanced Career Development	3
CNS ED 6600 (p. 313) Theories and Techniques of Counseling Children and Adolescents	3
CNS ED 7000 (p. 313) Advanced Theories And Foundations Of Counseling Psychology	3
CNS ED 7010 (p. 313) Advanced Multicultural Counseling	3
CNS ED 7030 (p. 313) Counselor Education And Supervision	3
CNS ED 7035 (p. 313) Counselor Education & Supervision Practicum	3
CNS ED 7400 (p. 313) Advanced Topics in School Counseling Leadership	3
CNS ED 7770 (p. 313) Doctoral Practicum	3
CNS ED 7780 (p. 313) Doctoral Internship	6
<b>5. Minor Specialization</b>	<b>12-18</b>
A secondary area of expertise identified in consultation with the advisory committee	
<b>6. Dissertation</b>	<b>12</b>
EDUC 7999 Dissertation Research (p. 313)	

- 1 Minimum 90 hours, postbaccalaureate.
- 2 This sequence totals 12 hours of methods courses. Any remaining required hours could be completed with other ED REM courses numbered 6000 or higher or research courses in another curriculum.
- 3 Or, for student in Counselor Education, CNS ED 7020 (p. 313) Seminar In Counseling Research, may be taken in the place of EDUC 7050 (p. 313).

**Total:** minimum 90 hours, postbaccalaureate

## Doctor of Philosophy Degree

The Ph.D. degree in education is designed for educators who desire directed research experience promoting scholarly inquiry in education. Four emphases are available:

- Teaching-learning processes
- Educational leadership and policy studies
- Educational psychology
- Counseling

The Ph.D. program is designed for graduates to attain the following learning outcomes:

- Understand the major theories in their primary and secondary disciplines.
- Attain a breadth of knowledge in education in general and a depth of knowledge in the primary discipline.
- Think critically.
- Locate literature in the primary and secondary disciplines.
- Understand research methods in education.
- Conduct research.
- Demonstrate leadership skills and attributes.

## Admission and General Requirements

In addition to meeting the application and admissions requirements of the Graduate School, students must submit:

- Three letters of recommendation (at least two from individuals with earned doctorates, preferably prior instructors).
- An original essay.
- A professional resume.
- Evidence of above-average academic records.
- GRE scores.

Admission is competitive, and a favorable vote of an admission interview committee, composed of faculty in the emphasis area, is required.

## Admission Application

To ensure time for review and decision, applicants must complete the Graduate School's and program applications and submit accompanying materials in a timely manner. In addition, applicants are urged to request transcripts and letters or recommendation two weeks before completing the online application. Consideration of applications cannot be undertaken until all materials are available. The deadline for applying to the Counseling emphasis is December 1st. Applicants for the other options are considered twice per year with application deadlines of October 1st and March 1st.



## Degree Requirements

### 1. Foundations

9-12

Philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction, and supervision.

### 2. Research Methods

15-18

Students in the Teaching-Learning Processes, Educational Leadership and Policy Studies, and Educational Psychology emphasis areas should complete the following or equivalent in order:

ED REM 6735 Statistical Analysis For Education Research  
(Prerequisite)

ED REM 6750 Advanced Research Design In Education

Plus any three methods courses from the following:

ED REM 7771 Quantitative Research Methods I

ED REM 7772 Quantitative Research Methods II

ED REM 7781 Qualitative Methods In Educational Research I

ED REM 7782 Qualitative Methods In Educational Research II

This sequence totals 15 hours of methods courses. Remaining hours can be completed with other ED REM courses numbered 6000 or higher or research courses in another curriculum.

**For Ph.D. students in the Counseling emphasis area, the recommended sequence is:**

ED REM 6710 Educational Research Methods and Design

ED REM 7771 Quantitative Research Methods I

ED REM 7772 Quantitative Research Methods II

ED REM 7781 Qualitative Methods In Educational Research I

ED REM 7782 Qualitative Methods In Educational Research II

### 3. Emphasis Area (Primary Discipline) courses

27-33

with at least 16 in residence, in one of the following areas:

#### A. Teaching-Learning Processes

Minimum 15 credit hours in cognate area

Minimum 3 credit hours in curriculum or instruction

Minimum 3 credit hours in educational psychology

#### B. Educational Leadership and Policy Studies

Minimum 21 hours in educational leadership, either in K-12, higher education, work, adult or community education settings, selected in consultation with the faculty advisor and advisory committee.

#### C. Educational Psychology

Minimum of 21 credit hours in educational psychology. Program may include courses in research and evaluation methods, school psychology, developmental psychology, cognition and learning, character education, and socio-cultural theory. Courses in the primary discipline will be selected in consultation with the faculty advisor and advisory committee.

#### D. Counseling

CNS ED 6030 Foundations for Multicultural Counseling

CNS ED 6040 Group Procedures in Counseling

CNS ED 6050 Individual Inventory

CNS ED 6370 Clinical Mental Health Counseling Practicum I  
or CNS ED 6270 School Counseling Practicum

CNS ED 6380 Clinical Mental Health Counseling Field Experience

CNS ED 6400 Career Information and Development

CNS ED 6410 Advanced Career Development

CNS ED 7000 Advanced Theories And Foundations Of  
Counseling Psychology

CNS ED 7010 Advanced Multicultural Counseling

CNS ED 7020 Seminar In Counseling Research

CNS ED 7030 Counselor Education And Supervision

CNS ED 7770 Doctoral Practicum

Additionally, all students should complete:

CNS ED 7780 Doctoral Internship

a secondary discipline in ED PSY consisting of at least:

ED PSY 6310 Psychology Of Learning Processes

ED PSY 6113 Psychopathology And Diagnosis

ED REM 6718 Psychoeducational Assessment And Intervention

### 4. Related (Secondary Discipline) Courses, 12-15 hours, in education or another department.

### 5. Required Exit course

EDUC 7950	Research Process II: Developing & Refining Ed Research Proposals	3
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### 6. Research Internship

6-9

EDUC 7999	Dissertation Research	12
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**Total: Minimum 90 hours, postbaccalaureate**

## Courses

### ***EDUC 1000 Building Community, Culture, and Learning in Education: 3 semester hours***

This course provides opportunities for educator candidates to develop a community of educators-in-training, relationships that will continue throughout academic and professional careers. This course provides experiences for students to interact with a diverse group of educators who work in schools and in community-based organizations, such as teachers, principals, counselors, psychologists, social workers, nurses, librarians, museum curators, and many other kinds of youth development workers in a variety of settings and from a variety of cultures. Content includes introduction to, and applications of, the performance assessment system utilized throughout all curricular programs and essential to learning to evaluate one's experiences, impact, and coursework. The course serves to ground candidates in the education profession, including its diverse career options and programs offered in the College. Coursework addresses what the content and disposition expectations are of UMSL and College of Education students and supports the development of the skills to master those expectations, including research, critical thinking, and writing. This course is a critical component for successful graduation and post-graduate professional and career development.

### ***EDUC 2204 Special Topics In Education: 1-3 semester hours***

Prerequisite: Completion of 75 hours and consent of instructor.

Examination of a special area or topic within the field of education. Topics to be considered will be announced prior to registration and may vary. For elective credit only. This course may be repeated for different topics. Not to exceed a total of six hours credit.

### ***EDUC 2222 Interpretation: Connecting Audiences and Meaning: 3 semester hours***

Interpretation is a process for forming intellectual and emotional connections between the interests of an audience and the inherent meanings within a resource. This class covers interpretive methods for development and delivery of thematic, non-formal, presentations to various audiences. The class also introduces informal exhibit design, customer service and social media as they relate to interpretation.

**EDUC 2297 Independent Study: 1-3 semester hours**

Prerequisite: Completion of 75 hours and consent of instructor.  
Independent study through readings, research, reports and conferences designed to provide depth in areas of study previously introduced in education courses. For elective credit only. May be repeated. Not to exceed a total of three hours credit.

**EDUC 4989 Internship I: 3 semester hours**

Prerequisites: Junior Standing, Admission to the Bachelor of Educational Studies Program, and Consent of Instructor. Supervised field experience in educational settings to prepare for planning, research, evaluation, and other professional activities in the student's emphasis area of concentration that will be carried out in EDUC 4990 and EDUC 4991.

**EDUC 4990 Internship II: 6 semester hours**

Prerequisites: EDUC 4989, Senior Standing, and Consent of Instructor. Includes planning, research, evaluation and other professional activities in the student's emphasis area.

**EDUC 4991 Internship III: 6 semester hours**

Prerequisites: Completion of or Concurrent Enrollment in EDUC 4990. Continuation of EDUC 4990.

**EDUC 5006 Graduate Workshop: 1-10 semester hours**

Prerequisite: Consent of instructor.

**EDUC 6308 Graduate Institute: 1-10 semester hours**

Prerequisite: Consent of instructor.

**EDUC 6404 Seminar: 1-10 semester hours**

Seminar on an educational topic or special issue not normally included in the regular curriculum.

**EDUC 6408 Graduate Seminar: 1-10 semester hours**

Prerequisites: Consent of instructor Intensive study of selected issues in education.

**EDUC 6491 Staff Development And Professional Growth: 1-10 semester hours**

Designed in conjunction with an individual school district or educational agency and related to problems of education confronting that specific district or agency.

**EDUC 6998 Thesis Research: 1-10 semester hours**

Prerequisite: Consent of instructor.

**EDUC 7050 The Research Process I:Framing Research Questions Within Educ Lit: 3 semester hours**

Same as ED ADM 7050. Prerequisites: Admission to the Ed.D. or Ph.D. in Education Programs. An overview of the essential elements of research proposals and familiarization with the techniques and tools used to identify important research questions within the education literature. emphasis is placed on exploring the research literature and both framing and justifying research questions within that literature.

**EDUC 7205 Action Research for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D cohort or consent of instructor. Study of small-scale simulations that introduce students to the fundamentals of framing relevant questions, working in community, writing field notes, interviewing, technologies to support and help analyze data, and storytelling. Particular attention will be given to representing perspectives of various stakeholders including students, parents, administrators, and colleagues.

**EDUC 7210 Survey Design for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Application of relevant theories, research, and pedagogical practices in designing surveys for educational settings. Focus on instrument development and design, forming questions and scales, and sampling methods as well as analysis of results and presentation for various target audiences in educational organizations and settings.

**EDUC 7215 Data Analysis for Educational Practitioner: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Guided workshop to conduct quantitative and/or qualitative analysis on data collected by learning communities. Develops specific skills necessary for research, e.g., using software for statistical or qualitative analysis, coding interviews or observation notes for patterns, doing critical discourse analysis, etc.

**EDUC 7220 Designing Research for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Guided workshop, applying the principles of research design, to design a study of the research issues selected by the learning community. Course covers how to develop research questions, choose among quantitative and qualitative methods, and consider the best, ethical practices.

**EDUC 7225 Ethnography for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. The study of ethnography as a methodology to engage in field research and provide the conceptual, theoretical, and empirical knowledge base for action research.

**EDUC 7230 Interviewing for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Provides opportunities for developing skills in interviewing individuals and groups to identify, describe, assess and compare educational programs, practices and policies. Emphasis on interviewing experts in the field and research participants in educational research field studies.

**EDUC 7295 Inquiry Seminar for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Seminar on a specified approach to inquiry in order to obtain or analyze information of interest to scholar-practitioners leading educational programs through continuous improvement cycles.

**EDUC 7305 Representing Data for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. learning community or permission of instructor, Methods for presenting and displaying various types of data to a range of target audiences. Means of assuring accurate representation and the advantages and disadvantages of various methods are reviewed. Displays include tables, graphs, and charts. Current software programs to aid representation are reviewed.

**EDUC 7310 Integrating Technology in Learning for Educational: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Appropriate technology tools for carrying out individual or group research and assessment projects will be identified and integrated. The appropriate tools will be learned and applied to present, analyze and complete projects.

**EDUC 7315 Project Management for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to the Ed.D. program or consent of instructor. Tools for and approaches to managing complex projects in educational organizations, including establishing goals, subdivision of work, formation of work groups, planning and scheduling, establishing and tracking time lines, deployment of resources to complete a project, and addressing constraints. Use of current software for charting and reporting projects.

**EDUC 7320 Financial and Budgeting Skills for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Examines budgeting and finance systems of educational institutions, both from the perspective of theory, research and policy development, and from the perspective of actual budgeting and practice. There will also be an emphasis on the impact of federal and state policy regarding the finance of educational institutions, as well as the processes by which budgets are developed and resources allocated.

**EDUC 7325 Grant Writing for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Provides hands-on help for current and would-be grant writers. Examines search tools to locate likely request for proposals, explores text and sub-text issues, develops a timeline for grant development and submission, provides practice on how a peer review system works, considers issues related to revision and follows the real processes engaged in by successful grant recipients.

**EDUC 7330 Human Relations Skills for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to Ed.D. program or consent of instructor. Exposure for educational practitioners in a variety of leadership roles to basic human relations skills, effective interventions which can be made with the individual worker, and assessment skills to enable the leader to determine if referral to a mental health professional is warranted. Effective ways of confronting employees because of impaired job performance, giving performance evaluations, providing career development and planning information, identifying work transitions in their employees, and identifying stress and stressors in the work environment, along with identifying substance abusing workers and deciding what to do about them.

**EDUC 7395 Tool Seminar for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Seminar on a specified tool used by leaders of educational institutions or programs for organizational improvement or as part of a continuous improvement cycle.

**EDUC 7415 Topics in Education: 3 semester hours**

Prerequisite: Admission to the doctoral program. Intensive study of a topic in education.

**EDUC 7490 Directed Readings in the Education Research Literature: 1-6 semester hours**

Prerequisite: Doctoral Standing. Independent study of the education research literature in an area defined in consultation with an advisor.

**EDUC 7495 Doctoral Research Tools: 1-6 semester hours**

Prerequisites: ED REM 6710. A structured individual or small group instructional or supervised investigative experience in and with a specific research skill and/or procedure that will be needed in the production of a doctoral dissertation. This course may not substitute for any existing graduate courses that cover the same research tool skills.

**EDUC 7600 Learning Community of Practice I: 1-6 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Applying the scholarship of teaching and learning through asset mapping, inquiry formation, and selected readings. Students explore professional connections, interests, beliefs and reflect on practice.

**EDUC 7605 Scholarship of Teaching and Learning in Educational Practice: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Exploration of learning through practice and reflection within a community of scholars committed to situated best practice in education.

**EDUC 7610 Learning Community of Practice II: 1-6 semester hours**

Prerequisites: EDUC 7600. Identifies and examines research problems by developing skills of inquiry, integrating prior knowledge, and evaluating extant research.

**EDUC 7615 Evaluation of Educational Programs: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Assessment of programs for continuous improvement cycles within educational settings.

**EDUC 7620 Learning Community of Practice III: 1-6 semester hours**

Prerequisites: EDUC 7610. Selection and definition a problem of practice to be addressed through research by the learning community members. Includes building relationships within and outside the learning community and designing structure to support inquiry into a problem of practice.

**EDUC 7625 Building Socially Just Educational Communities: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Examination of the role of culture and the analysis and application of social justice components in learning communities.

**EDUC 7630 Learning Community of Practice IV: 1-6 semester hours**

Prerequisites: EDUC 7620. Design and pilot of the research, selection of tools of inquiry, location of resources and needed support, and analysis of data.

**EDUC 7635 Ethical and Legal Issues in Educational Practice: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Examines legal and ethical perspectives, conflicts and professional practice in education, especially in education leadership. Introduces ethical theories and studies approaches to problem-solving strategies, focusing on anticipating legal issues before they arise; methods and tools to prevent and resolve legal problems will be practiced.

**EDUC 7640 Learning Community of Practice V: 1-6 semester hours**

Prerequisites: EDUC 7630. Preparation of dissertation proposals, consideration of research tools, establishment of process in research sites and attention to the adherence to high ethical standards.

**EDUC 7642 Sociocultural Perspectives In Education: 3 semester hours**

Prerequisite: Doctoral standing and consent of instructor. Investigation of sociocultural theory with a focus on educational applications. Topics include the social formation of mind, language as cultural tool, methodological issues in social science research, and dialogic inquiry as pedagogy.

**EDUC 7650 Learning Community of Practice VI: 1-6 semester hours**

Prerequisites: EDUC 7640. Preparation of dissertation proposals, consideration of research tools, establishment of process in research sites and attention to the adherence to high ethical standards. A continuation of EDUC 7640.



**EDUC 7880 Research Internship I: 3 semester hours**

Prerequisites: Nine hours of research methods or statistics and consent of instructor Supervised experience in the conduct of research studies or scholarly inquiry.

**EDUC 7881 Research Internship II: 3 semester hours**

Prerequisites: EDUC 7880 and consent of instructor Supervised experience in the conduct of research studies or scholarly inquiry.

**EDUC 7882 Research Internship III: 3 semester hours**

Prerequisites: EDUC 7881 and consent of instructor Supervised experience in the conduct of research studies or scholarly inquiry.

**EDUC 7889 Laboratory of Practice: 1-6 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Field experience that bridges theory and practice in solving complex, situated problems of practice.

**EDUC 7950 Research Process II: Developing & Refining Ed Research Proposals: 3 semester hours**

Prerequisites: Completion of 6 hours of ED REM courses numbered 7771 or higher. An in depth examination of the essential elements of a research proposal. Particular emphasis is placed on examining the validity and reliability or the trustworthiness of the design of the proposed research. Tools for identifying research strengths and weaknesses are applied to proposals. Presentation of a written proposal and oral defense of that proposal are required.

**EDUC 7998 Dissertation in Practice Research: 1-8 semester hours**

Prerequisites: Completion of doctoral coursework. Credit awarded upon defense of dissertation in practice.

**EDUC 7999 Dissertation Research: 1-12 semester hours**

Prerequisite: Admission to candidacy in the Education program. Credit awarded only upon successful defense of the dissertation.

## Counseling and Family Therapy

### General Information

The Department of Counseling and Family Therapy is housed on the fourth floor of Marillac Hall on the South Campus. Information about offerings and related matters may be obtained in the Department office, 469 Marillac Hall or at the College of Education's Counseling and Family Therapy's webpage (<http://coe.umsl.edu/dept/Counseling>) at <http://coe.umsl.edu/dept/Counseling/index.html>. General information on the doctoral degree is presented here. Specific information on the doctoral degrees is presented in this Bulletin in the general College of Education listing as well as at the Department doctoral program webpage ([https://coe.umsl.edu/mycoe/index.cfm?event=p2\\_pe:viewProgram&program\\_id=PhD.Counseling](https://coe.umsl.edu/mycoe/index.cfm?event=p2_pe:viewProgram&program_id=PhD.Counseling)) at [https://coe.umsl.edu/mycoe/index.cfm?event=p2\\_pe:viewProgram&program\\_id=PhD.Counseling](https://coe.umsl.edu/mycoe/index.cfm?event=p2_pe:viewProgram&program_id=PhD.Counseling)

The Department of Counseling and Family Therapy offers coursework leading to the following degrees:

- Master of Education (M.Ed.) in Elementary School Counseling
- Master of Education (M.Ed.) in Secondary School Counseling
- Master of Education (M.Ed.) in Clinical Mental Health Counseling
- Doctor of Philosophy (Ph.D.) in Education with an Emphasis in Counseling

Further, four of our programs are nationally accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) -- a specialized accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation. CACREP grants accredited

status to graduate-level programs in the professional counseling field. Our accredited programs include masters programs in School Counseling, Clinical Mental Health Counseling, and Clinical Mental Health Counseling with a specialization in Career Counseling, along with our doctoral program in Counseling -- a counselor education and supervision doctorate.

Students wishing to receive Missouri certification in elementary school counseling or secondary school counseling must complete all required courses for the M.Ed. in Elementary School Counseling or M.Ed. in Secondary School Counseling, as appropriate, in addition to holding teaching certificates valid in Missouri or taking the equivalent coursework. (Consult an advisor if you have questions on these matters.) The M.Ed. in Clinical Mental Health Counseling is appropriate for students planning to practice counseling in non school settings, and graduates may pursue the Missouri state license as a professional counselor (in order to practice independently). All of our masters degrees (both in school or clinical mental health counseling) fulfill the state of Missouri academic requirements for licensing as a professional counselor.

The M.Ed. degree programs have an exit requirement of a comprehensive examination. Students may sit for the exam after completing 36 units of the degree program. There is a service charge for taking the exam. The exam will be given at least twice a year. All degree students should consult with their advisors about this requirement.

### Vision

The Department of Counseling and Family Therapy, as one of the preeminent counselor preparation programs in the United States, strives to develop the highest quality, culturally competent human service providers through superior teaching, scholarly activity, and service.

### Mission

The Department of Counseling and Family Therapy prepares both master's and doctoral level professional counselors and counselor educators as well as couple and family therapists to serve the mental health needs of culturally diverse individuals, groups, couples, and families in need. The Department's outreach extends to schools, colleges and universities, community based organizations, business and industry, as well as independent practice. The Department strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

### Values

The Department of Counseling and Family Therapy is committed to the full integration of practice, research, and advocacy in the training of counselors for our society. Major emphases in all aspects of such training offered in the Department is the faculty's commitment to social justice, multicultural training, issues of diversity, and the value of work in people's lives. Counselors play a direct role in facilitating the development of active, productive, and healthy members of society, and counselors must be trained to be fair and non-discriminatory, while building on strengths and acknowledging areas for improvement in their clients. Training must be based on empirically and theoretically sound practice, not unfounded or prejudicial opinion. Counseling professionals are guided by the well-established ethical principles in the mental health professions: beneficence, non-maleficence, justice, autonomy, fidelity, and veracity. Beneficence, as a guiding principle, means that counselors act in the best interests of their clients. Non-maleficence means counselors avoid doing harm to clients. Justice means that counselors are fair and non-discriminatory. Autonomy means that counselors view clients as self-directing, as much as possible, and free to make decisions without undo



influence. The principle of fidelity means counselors are loyal to their clients and maintain the confidentiality and privacy of the counseling relationship. And finally, the principle of veracity means counselors are truthful in addressing others. These general principles guide counseling practice, and they are at the foundation of how the Department of Counseling and Family Therapy trains future counselors for work in our society.

## Admission

In addition to meeting the general admission requirements of the Graduate School, applicants to the M.Ed. must complete the Departmental application in addition to the application to Graduate School, have three completed references on file, must have an undergraduate GPA of 3.0, and must take CNS ED 6000, Personal and Professional Development in Counseling, in their first semester. Admissions will be conducted twice a year. The deadlines for application are May 1 for the fall semester and October 1 for the spring semester.

Since it is the objective of the counseling faculty to identify students with low potential for competent practice as early as possible and to initiate the necessary procedures for dealing with such students, faculty of the counseling program reserve the right to review students at any stage of their coursework. A U (Unsatisfactory) in any clinical course or any grade less than a B in any core counseling course (CNS ED 6000, Personal and Professional Development in Counseling; CNS ED 6010: Theories of Counseling; CNS ED 6270 School Counseling Practicum; CNS ED 6370, Clinical Mental Health Counseling Practicum I; CNS ED 6375: Clinical Mental Health Counseling Practicum II; CNS ED 6280 School Counseling Field Experience; or CNS ED 6380 Clinical Mental Health Counseling Field Experience) will automatically trigger a review process by the Counseling Review Board. The Counseling Review Board process, however initiated, may result in the termination of the student's degree program or other required or recommended remedies to address deficiencies judged by the Counseling Review Board as related to the skills that are essential to the development of competent and ethical practices as a professional counselor.

Students admitted to the M.Ed. degree programs in counseling as "restricted graduate students" (see the "graduate study" rules in this Bulletin) must attain a 3.0 GPA for the first 12 hours of graduate course work at UMSL with no grade less than a B or an S (Satisfactory) in any clinical course. Restricted students must include the following courses in the first 12 hours of coursework: CNS ED 6000: Personal and Professional Development in Counseling; CNS ED 6010: Theories of Counseling; and (CNS ED 6270 School Counseling Practicum or CNS ED 6370: Clinical Mental Health Counseling Practicum, as appropriate). A student earning any grade less than a B in any of these courses or a U (Unsatisfactory) in any clinical course, but still maintaining a 3.0 GPA, will be allowed to repeat the course one time and must earn a grade of B or better or an S (Satisfactory) in any clinical course to be fully admitted.

## Master of Education in School Counseling – Overview

### Mission

The School Counseling Program of the Department of Counseling and Family Therapy prepares professional school counselors to serve the academic, career, and personal/social needs of culturally diverse students in the elementary, middle, and secondary schools. The Department strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

## Purpose and Objectives

The M.Ed. in School Counseling program prepares school counselors for positions in public or private elementary, middle, or secondary schools. The program is designed to fulfill entry-level program standards of preparation. It also is intended to enable program graduates to obtain Missouri Department of Elementary and Secondary Education Certification in School Counseling.

Emphasized in the program is the use of developmental perspectives by school counseling and guidance practitioners as outlined by the Missouri Department of Elementary and Secondary Education, the Council for Accreditation of Counseling and Related Educational Programs (CACREP), and the most innovative school counselor training standards as described by the professional literature. That is, guidance and counseling services are considered appropriate and necessary for all students in schools, not just those with problems or in crisis. Remedial and crisis intervention theories and strategies are covered in the curriculum; however, facilitation of "developmental" conditions needed for students' learning, re-learning, and effective coping are viewed as most important.

The objectives of the school counseling program are to prepare graduates who can conceptualize and organize a school-based program around the eight goals which characterize developmental guidance and counseling programs. The objectives of the program is are to prepare graduates who:

1. understand school environments;
2. understand self and others;
3. understand students' attitudes and behaviors;
4. understand students' decision-making and problem-solving skills;
5. have effective interpersonal and communication skills;
6. understand students' school success skills;
7. understand students' career awareness and educational planning; and
8. understand community pride and involvement.

Each of these objectives is further delineated by a set of general objectives, described through expected observable outcomes. While each of these objectives are applicable to all grade levels, particular attention is given to objectives related to developmental stages and tasks for appropriate age groups. Program graduates are expected to be competent in and be able to:

1. provide individual counseling;
2. provide small group counseling;
3. present large group/classroom guidance;
4. organize and manage peer facilitator programs;
5. develop a series of counseling and guidance activities for dysfunctioning (i.e. target) students;
6. provide leadership in organizing guidance experiences for all students within a school;
7. lead parent education groups;
8. consult individually and in groups with teachers, parents, and administrators;
9. consult with child study teams; and
10. demonstrate counselor effectiveness through accountability studies.

## Master of Education: Emphasis in Elementary School Counseling

The courses listed below meet the coursework requirements for the M.Ed. degree, state certification as a school counselor, and licensing as a professional counselor:

<b>Counselor Education</b>		
CNS ED 6000	Personal and Professional Development in Counseling	3
CNS ED 6010	Theories of Counseling	3
CNS ED 6020	Ethical and Professional Issues in Counseling	3
CNS ED 6030	Foundations for Multicultural Counseling	3
CNS ED 6040	Group Procedures in Counseling	3
CNS ED 6050	Individual Inventory	3
CNS ED 6200	Foundations of School Guidance	3
CNS ED 6270	School Counseling Practicum	3
CNS ED 6280	School Counseling Field Experience	6
CNS ED 6400	Career Information and Development	3
<b>Psychological Foundations and Human Development</b>		
ED PSY 6210	Life-Span: Individual and Family Development	3
ED PSY 6532	Psychoeducational Differences	3
<b>Educational Research and Evaluation Methods</b>		
ED REM 6710	Educational Research Methods and Design	3
<b>Electives</b>		
Six credit hours from CNS ED or related courses, such as:		6
CNS ED 6600	Theories and Techniques of Counseling Children and Adolescents	
CNS ED 6500	Introduction to Systems Theory for Couples and Family Counseling	
Comprehensive Exam (Capstone Experience) <sup>1</sup>		
<b>Total Hours</b>		<b>48</b>

<sup>1</sup> Please consult with the Department office for requirements and dates of this examination.

## State Certification

Although not a degree requirement, a passing score on the relevant Praxis test or other examination required by the Missouri Department of Elementary and Secondary Education is also required for state certification as a school counselor and must be achieved before the student can be recommended by the Department of Counseling and Family Therapy for such certification. In addition, students who do not hold a state certification as a teacher must also take the following courses in addition to their M.Ed. in School Counseling program in order to be recommended by the Department of Counseling and Family Therapy as a school counselor.

ED PSY 6111	Psychology Of Education	3
SPEC ED 6412	Psychology Of Exceptional Children	3
SPEC ED 6325	Advanced Studies in Classroom & Behavior Management	3
ELE ED 6411	Curriculum Leadership Elementary Programs <sup>1</sup>	3
or SEC ED 6415	Curriculum Leadership in Education	

<sup>1</sup> Students seeking K-12 certification must take either ELE ED 6411 or SEC ED 6415.

## Master of Education: Emphasis in Secondary School Counseling

The courses listed below meet the course work requirements for the M.Ed. degree, state certification, and licensing as a professional counselor:

<b>Counselor Education</b>		
CNS ED 6000	Personal and Professional Development in Counseling	3
CNS ED 6010	Theories of Counseling	3
CNS ED 6020	Ethical and Professional Issues in Counseling	3
CNS ED 6030	Foundations for Multicultural Counseling	3
CNS ED 6040	Group Procedures in Counseling	3
CNS ED 6050	Individual Inventory	3
CNS ED 6200	Foundations of School Guidance	3
CNS ED 6270	School Counseling Practicum	3
CNS ED 6280	School Counseling Field Experience	6
CNS ED 6400	Career Information and Development	3
<b>Psychological Foundations and Human Development</b>		
ED PSY 6210	Life-Span: Individual and Family Development	3
ED PSY 6532	Psychoeducational Differences	3
<b>Educational Research and Evaluation Methods</b>		
ED REM 6710	Educational Research Methods and Design	3
Six credit hours from CNS ED or related courses		6
Comprehensive Examination (Capstone Experience) <sup>1</sup>		
<b>Total Hours</b>		<b>48</b>

<sup>1</sup> Please consult with the Department office for requirements and dates of this examination.

## State Certification

Although not a degree requirement, a passing score on the relevant Praxis test or other examination required by the Missouri Department of Elementary and Secondary Education is also required for state certification as a school counselor and must be achieved before the student can be recommended by the Department of Counseling and Family Therapy for such certification. In addition, students who do not hold a state certification as a teacher must also take the following courses in addition to their completed M.Ed. in School Counseling program in order to be recommended by the Department of Counseling and Family Therapy as a school counselor.

ED PSY 6111	Psychology Of Education	3
SPEC ED 6412	Psychology Of Exceptional Children	3
SPEC ED 6325	Advanced Studies in Classroom & Behavior Management	3
ELE ED 6411	Curriculum Leadership Elementary Programs <sup>1</sup>	3
or SEC ED 6415	Curriculum Leadership in Education	

<sup>1</sup> Students seeking K-12 certification must take either ELE ED 6411 or SEC ED 6415.

## Master of Education in Clinical Mental Health Counseling – Overview

### M. Ed. Clinical Mental Health Counseling Program Mission Statement

The Clinical Mental Health Counseling Program of the Department of Counseling and Family Therapy prepares professional counselors, including mental health, career, addictions, couples/family, and child and adolescent counselors, to serve the mental health needs of culturally diverse individuals, groups, couples, and families in need. The Department's outreach extends to schools, colleges and universities, community based organizations, business and industry, as well as independent practice. The Department strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

### Purpose and Objectives

The M.Ed. in Clinical Mental Health Counseling program prepares clinical mental health counselors for positions in community colleges, universities, employment agencies, vocational rehabilitation agencies, probation and parole work, juvenile detention, alcoholism and drug abuse clinics, career planning and placement centers, community mental health agencies, family and children services, and various federally funded public service projects. Additionally, graduates are employed in career development, and business and industry positions, especially in training and personnel areas. Others have moved into roles calling for research and evaluation skills. The program is designed to fulfill entry-level program standards of preparation. It also is intended to enable program graduates to apply for the Missouri License for Professional Counselors.

The objectives of this program are to prepare graduates:

1. to function effectively and ethically as professional counselors in the community, within a mental health setting;
2. to be self-aware and sensitive to their clients as people who exist in the context of different cultures and races and people who are potentially at risk;
3. to flexibly and skillfully construct and apply theory and techniques to fit unique and changing needs of clients both individually and in groups, within a community mental health setting;
4. to be proficient with the understanding and human relations skills necessary to consult as part of a team effort, within a mental health setting;
5. to help individuals meet developmental concerns and needs both individually and in a variety of developmental group programs, within a mental health setting;
6. to be knowledgeable about career development and the use of appraisal instruments and test interpretation and their impact on individual planning;
7. to be knowledgeable about research methods and research literature; and
8. to value developing professional expertise as a lifelong process.

### Master of Education: Emphasis in Clinical Mental Health Counseling

The clinical mental health counseling emphasis allows flexibility for developing programs appropriate to particular nonschool settings.

Students must have their adviser's approval before taking other than required courses.

### Core Curriculum (CNS ED)

The courses listed below meet the course work requirements for the M. Ed. Degree and the license to practice as a professional counselor:

CNS ED 6000	Personal and Professional Development in Counseling	3
CNS ED 6010	Theories of Counseling	3
CNS ED 6020	Ethical and Professional Issues in Counseling	3
CNS ED 6030	Foundations for Multicultural Counseling	3
CNS ED 6040	Group Procedures in Counseling	3
CNS ED 6050	Individual Inventory	3
CNS ED 6070	Psychopathology & Diagnosis	3
CNS ED 6300	Foundations Of Clinical Mental Health Counseling	3
CNS ED 6370	Clinical Mental Health Counseling Practicum I	3
CNS ED 6375	Clinical Mental Health Counseling Practicum II	3
CNS ED 6380	Clinical Mental Health Counseling Field Experience	6
CNS ED 6400	Career Information and Development	3
CNS ED 6500	Introduction to Systems Theory for Couples and Family Counseling	3
CNS ED 6700	Introduction To Addictive Behaviors And Addiction Counseling	3

One course from the advanced multicultural cognate which includes: 3

CNS ED 6810	Integrating Religion And Spirituality In Counseling	
CNS ED 6820	Counseling Women Toward Empowerment	
CNS ED 6830	Counseling African American Clients	
CNS ED 6840	Counseling Sexual Minorities	
CNS ED 6850	Social Class and Poverty Issues In Counseling	
CNS ED 6860	Human Sexuality in Counseling	

### Psychological Foundations and Human Development

The following course is required:

ED PSY 6210	Life-Span: Individual and Family Development	3
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### Educational Research and Evaluation Methods

The following course is required:

ED REM 6710	Educational Research Methods and Design	3
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### Electives and Area of Specialization

6  
Coursework in the area of specialization is to be selected in consultation with the adviser. Although not mandatory, areas of specialization may include career counseling, mental health counseling, rehabilitation counseling, addictions/substance abuse counseling, child and adolescent counseling, couples and family counseling, and others.

Comprehensive Examination (Capstone Experience) <sup>1</sup>		
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Total Hours 60

<sup>1</sup> Please consult with the Department office for requirements and dates of this examination.

## Doctoral Program (Ph.D.) in Counselor Education and Supervision - Overview

### Admission

Admissions will be conducted once per year. The deadline for applications is December 1, for a Fall Semester admission.

### Mission

The Doctoral Program in Counselor Education and Supervision of the Department of Counseling and Family Therapy prepares doctoral level counselor educators and supervisors to train professional counselors who will provide services to meet the mental health needs of culturally diverse individuals, groups, couples, and families in need. The Department's goal is to train practitioner-scholar-advocates who can contribute to the professional counseling field in academic, research, and practice contexts. The Department's outreach extends to individuals who practice counseling in schools, colleges and universities, community based organizations, business and industry, as well as independent practice. The Department strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

## Ph.D. in Education in Counseling

### Mission

Students completing the Ph.D. in counseling will be knowledgeable about counseling's knowledge base; will be competent in research, measurement, and statistical methods; will be knowledgeable and experienced in counselor education and supervision; and will possess a high level of applied research and clinical skills. The goal of the program is to prepare professionals adept at theory development, qualitative and quantitative research methods, and integration of research with practice in counseling settings. The larger program intent is to produce researcher practitioners who can provide and assess services designed to enhance the lives of individuals facing extraordinary challenges throughout the lifespan.

### Purpose and Objectives

The objectives of the Ph.D. in Education in Counseling Program are:

1. to build upon and enhance the knowledge base in core counseling areas through successful completion of advanced doctoral coursework in research and counseling practice;
2. to refine counseling practice skills and enhance the supervised experience base through successful completion of an advanced doctoral practicum and a doctoral internship;
3. to teach and to require the ethical practice of counseling, counseling research, and counselor education through course work and supervision of practice;
4. to enhance the student's ability to identify and to solve complex problems in education and counseling;
5. to train counselor educators and supervisors of counselors-in-training;
6. to prepare professional counselors to provide a full-range of counseling services to individuals from differing cultural backgrounds facing extraordinary challenges throughout the life span. This requires academic training and supervised practice (both as a student and as a potential supervisor-in-training) addressing the concerns of clients from varied cultural backgrounds, including individuals in protected or minority statuses;

7. to prepare professionals adept at (a) theory development; (b) qualitative and quantitative research methods; (c) integration of research with practice in school and non-school counseling settings through advanced coursework and a research seminar;
8. to apply counseling theory to the process and practice of consultation in various counseling and educational contexts, learned primarily through the doctoral practicum and doctoral internship, but proceeded by classroom instruction on organizational climate, ethical climate, and problem solving;
9. to provide a context for skill development and practice in individual, career, and group assessment (including intelligence, aptitude, achievement, interest, and personality assessment) through a supervised advanced doctoral practicum and doctoral internship;
10. to train researchers, scholars, and academicians (counselor educators) and to develop and to refine scholarship skills for anticipated entry into the academy through advanced coursework including research methodology and counseling research; and
11. to encourage and facilitate linkage to the counseling professional community and academy through organizational involvement and efforts to present scholarly findings at professional conferences or in professional journals. Students will be encouraged to submit their work for publication or presentation through professional and academic outlets.

## Career Outlook

### Elementary and Secondary School Counselors

The demand for school counselors throughout the state is quite high. There is a shortage of school counseling personnel at all levels. Additionally, many teachers who do not intend to leave the classroom pursue this program to be better able to meet the needs of their students. Some graduates of the program have left the field of education and have obtained positions such as those cited under Clinical Mental Health Counseling.

**Note:** It should be noted that in Missouri, persons who engage in "professional counseling" in many of these settings are required by law to be licensed as professional counselors.

### Clinical Mental Health Counselors

Graduates have been employed in a wide variety of settings: as counselors in community colleges, universities, employment agencies, vocational rehabilitation agencies, probation and parole work, juvenile detention, alcoholism and substance abuse clinics, career planning and placement centers, community mental health agencies, family and children services, and various federally funded public service projects. Additionally, graduates are employed in career development, and business and industry positions, especially in training and personnel areas. Others have moved into roles calling for research and evaluation skills.



## Courses

### ***CNS ED 1400 Making A Career Choice: 3 semester hours***

Introduces students to career development theories and the career decision-making process. Students receive an overview of career development theory and learn how these theories pertain to the formulation of individual career plans. Self-knowledge of career interests, values, beliefs, aptitudes, and other factors are explored. Self-assessment and decision-making techniques learned in this class can be revisited throughout the life span. The seminar format allows for small group discussion of career-related issues and personal application of career development principles.

### ***CNS ED 3220 Counseling Individuals With Special Needs: 3 semester hours***

Prerequisite: TCH ED 3313 or equivalent, or consent of instructor. A course emphasizing counseling skills for individuals who plan to work with people with disabilities. Emphasis is placed on using counseling strategies with school-age children with disabilities.

### ***CNS ED 4310 Human Relations Skills: 3 semester hours***

Prerequisite: Junior or Senior level standing or consent of instructor. A course emphasizing the development of specific skills in human relationships to help facilitate effective interaction among individuals and groups in the helping professions. Readings, discussion and skill-building exercise will be used to develop various human relations skills.

### ***CNS ED 4320 Occupational And Education Information: 3 semester hours***

Prerequisites: Junior or senior level standing or consent of instructor. This course is a basic introduction to the nature and use of occupational and educational information, including the characteristics and educational requirements of occupations as well as the history of and current occupation organizing systems.

### ***CNS ED 6000 Personal and Professional Development in Counseling: 3 semester hours***

Prerequisites: Provisional Acceptance to the Counseling Program or Consent of Instructor. This course provides an in-depth view of the professional counseling field. Attention is focused on the development of the helping relationship, including a review of research on factors which influence helping processes and rapport building, a development of skills used in the counseling process, and increased awareness of how students' values, beliefs, and behaviors are related to counselor effectiveness.

### ***CNS ED 6010 Theories of Counseling: 3 semester hours***

Prerequisite: CNS ED 6000. This course will explore the philosophical foundations of counseling theory. The major constructs of contemporary counseling approaches will be discussed and the practical applications of these theories will be analyzed.

### ***CNS ED 6020 Ethical and Professional Issues in Counseling: 3 semester hours***

Prerequisites: CNS ED 6000. Ethical, legal, and professional issues related to counseling are addressed. Ethical dilemmas in the provision of counseling services to individuals, couples, families, and groups are defined. Specific ethical codes of professional organizations are examined.

### ***CNS ED 6030 Foundations for Multicultural Counseling: 3 semester hours***

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010. This course will focus on: (1) reviewing knowledge and research in the area of multicultural counseling, (2) developing and/or enhancing skills useful in counseling with individuals from minority populations, and (3) developing levels of personal awareness about stereotypes, and learning how feelings and attitudes about these may impact counseling with individuals from minority populations.

### ***CNS ED 6040 Group Procedures in Counseling: 3 semester hours***

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010 and CNS ED 6270 or CNS ED 6370. This course examines the process dynamics of groups including group development, leadership, norms and therapeutic factors. Group counseling theories and approaches used for other group work including: skills, personal growth, support, vocational, and developmental guidance groups are included. Knowledge and skills of how to facilitate therapeutic groups are included. Students will be required to be participant-observers or facilitators of a group outside of class time.

### ***CNS ED 6050 Individual Inventory: 3 semester hours***

Prerequisite: ED REM 6709. Uses of educational and psychological appraisal techniques in counseling, develops counselor's abilities in assisting clients toward self-awareness through the use of test and non-test data. Ethical practices in the use of tests and the maintenance of personnel records are stressed.

### ***CNS ED 6070 Psychopathology & Diagnosis: 3 semester hours***

Prerequisites: Graduate Standing. Same As ED PSY 6113. Covers etiology, assessment and diagnosis of mental disorders using contemporary diagnostic systems. Course materials and assignment address the dynamics of adjustment and treatment implication for counselors, school psychologists, and others in the helping professions.

### ***CNS ED 6200 Foundations of School Guidance: 3 semester hours***

Prerequisites: CNS ED 6000 with a grade of B or better. The purpose of this course is to give students a foundation for understanding the history, philosophy, and development of school guidance programs. The role functions of the school counselor within a developmental, comprehensive program are examined, along with communication skills necessary for consultation with students, parents, school support staff, and resource people in the community nonacademic needs.

### ***CNS ED 6220 Current Issues In Counseling Special Needs Populations: 3 semester hours***

Prerequisite: Graduate Standing Designed to analyze relevant literature and to provide communication skills training for those professionals in school settings who work with individuals with special needs. The characteristics and social and emotional needs of this special population will be discussed as well as the impact of special needs on the family system.

### ***CNS ED 6270 School Counseling Practicum: 3 semester hours***

Prerequisites: CNS ED 6000 and CNS ED 6010 (both courses with a grade of B- or better) or consent of instructor. One hundred clock hours of supervised practice in counseling to provide the opportunity for students to pragmatically integrate and process materials, theories, techniques, and methodologies as they are applied in the counseling profession with emphasis on school counseling.

***CNS ED 6280 School Counseling Field Experience: 1-6 semester hours***

Prerequisites: CNS ED 6270 with a grade of B or better and consent of instructor. A 100 clock hour field experience for each semester-credit-hour of enrollment. Students will be closely supervised under the direction of a graduate faculty member. Students must demonstrate counseling competencies and skillful ethical practice. Students will receive 1.5 contact hours of group supervision weekly by a graduate faculty member and 1 contact hour of individual supervision weekly by field experience site supervisor during terms of enrollment. Course may be repeated for a maximum of 6 semester-credit-hours.

***CNS ED 6300 Foundations Of Clinical Mental Health Counseling: 3 semester hours***

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010. A survey of counseling in a variety of mental health settings. Introduction to the basic philosophical, historical, and psychological foundations of clinical mental health counseling. Designed to acquaint the student with the foundations and roles of the professional counselor in various community and agency settings.

***CNS ED 6370 Clinical Mental Health Counseling Practicum I: 3 semester hours***

Prerequisites: CNS ED 6000 and CNS ED 6010 (both courses with a grade of B- or better) or consent of the instructor. One hundred clock hours of supervised practice in counseling to provide the opportunity for students to pragmatically integrate and process materials, theories, techniques, and methodologies as they are applied in the counseling profession, focusing on clinical mental health counseling.

***CNS ED 6375 Clinical Mental Health Counseling Practicum II: 3 semester hours***

Prerequisites: CNS ED 6000, CNS ED 6010, and CNS ED 6370 (all courses with a grade of B- or better or S, as appropriate) or consent of instructor. One hundred clock hours of supervised advanced practice in counseling to provide the opportunity for students to continue to integrate and process theories, techniques, and methods as they are applied to the professional practice of counseling, with an emphasis on clinical mental health counseling.

***CNS ED 6380 Clinical Mental Health Counseling Field Experience: 1-6 semester hours***

Prerequisites: CNS ED 6370 and consent of instructor. A 100 clock hour field experience for each semester-credit-hour of enrollment. Students will be closely supervised under the direction of a graduate faculty member. Students must demonstrate counseling competencies and skillful ethical practice. Students will receive 1.5 contact hours of group supervision weekly by a graduate faculty member and 1 contact hour of individual supervision weekly by a field experience site supervisor during terms of enrollment. Course may be repeated for a maximum of 6 semester-credit-hours.

***CNS ED 6400 Career Information and Development: 3 semester hours***

Prerequisites: CNS ED 6000 with a grade of B or better and graduate standing. Emphasis is on the nature of the changing labor market and the impact on personal, social, economic, career, and educational aspects of individuals and society. Use of occupational and educational information systems and resources to assist with career decisions are examined. The needs of culturally diverse populations are discussed. Use of career and labor market information and programs such as computer technology to access up-to-date career and labor market information is explored. Techniques and methods of career counseling are discussed. Various theories of career development and career choice will be examined.

***CNS ED 6404 Seminar: 1-10 semester hours***

Prerequisite: Graduate Standing.

***CNS ED 6410 Advanced Career Development: 3 semester hours***

Prerequisites: CNS ED 6400 or consent of instructor Emphasis is on current theories of career development, career choice, and techniques and methods of career counseling. Issues concerning education and training, work, leisure, the family, life roles, and culturally diverse populations are studied. The role of career theory in planning, development, and delivery of a career development program is explored.

***CNS ED 6420 Career Assessment In Counseling And Rehabilitation: 3 semester hours***

Prerequisites: CNS ED 6050 and CNS ED 6400 or consent of instructor This course provides an in-depth and specialized look at the educational and psychological assessment techniques used in career counseling, especially the assessment of career interests, work values, work environment, work skills, work samples, career development stages, career maturity, career decision making, and career beliefs. Issues of using computers in the delivery of career development services will be discussed.

***CNS ED 6497 Problems: 1-10 semester hours******CNS ED 6500 Introduction to Systems Theory for Couples and Family Counseling: 3 semester hours***

Prerequisite: CNS ED 6010 or Consent of Instructor. This course is an introduction to relationship theory as applied to couples and family counseling. General systems theory, and social constructivism theory are reviewed. Students learn relationship interventions and beginning couple and family counseling techniques. Ethical, professional, and legal issues related to couples and family counseling are addressed.

***CNS ED 6510 Marriage Counseling And Enrichment: 3 semester hours***

Prerequisite: CNS ED 6500 Or Consent Of Instructor. This Course Focuses On The Theory And Techniques Of Marital Or Couples Counseling And Enrichment. Models And Methods For Prevention And Treatment Of Relationship Dysfunction Are Explored. Relationship Developmental Issues Are Addressed. Students Are Challenged To Develop The Critical Skills Necessary To Be Effective Marriage Counselors And Marital-Life Educators.

***CNS ED 6520 Family Counseling: 3 semester hours***

Prerequisite: CNS ED 6500 and CNS ED 6270, or CNS ED 6370, or consent of instructor. This course offers an in-depth analysis of strategic, structural, experiential, communications, behavioral, and psychodynamic approaches to systems change and family counseling. The range of techniques and applied practices evolving from each orientation are explored as are normal and dysfunctional family processes. Various counseling modalities, such as individual, concurrent, collaborative, conjoint, group, intergenerational, and networking are also considered.

***CNS ED 6600 Theories and Techniques of Counseling Children and Adolescents: 3 semester hours***

Prerequisites: CNS ED 6000, CNS ED 6010 (with a grade of B or better in both courses) or permission of instructor. This course focuses on counseling theories and their applicability to the developmental special concerns of children and adolescents including child-at risk issues such as: abuse, suicide, divorce, and death and dying. Individual, group, and family intervention techniques and consultation skills will be emphasized, as well as legal and ethical considerations for counselors. Strategies presented can be utilized in a variety of settings. Multicultural considerations are also addressed.

**CNS ED 6610 Introduction to Play Therapy: 3 semester hours**

Prerequisites: Graduate standing. Provides students a foundation for understanding the history, theories and application of play therapy. Working with children in both agency and school settings will be discussed as well as how play therapy skills can be incorporated into the student's developing theoretical framework. Can count towards the Registered Play Therapist Credential.

**CNS ED 6620 Advanced Play Therapy: 3 semester hours**

Prerequisites: CNS ED 6610. Helps students further develop their play therapy skills, especially in the area of client-centered play therapy. Examines the use of play therapy with traumatized children and aggressive children in both school and agency settings. Group play therapy and sand tray therapy as additional modalities will also be explored. Ethical and legal issues as well as supervision in play therapy will be emphasized. Can count towards the Registered Play Therapist credential.

**CNS ED 6700 Introduction To Addictive Behaviors And Addiction Counseling: 3 semester hours**

Prerequisites: CNS ED 6010 or Consent of Instructor Exploration of the theoretical foundations of contemporary approaches to such addictive behaviors as alcohol and drug abuse, smoking, compulsive gambling, and sexual addiction. The nature, etiology, prevention, and treatment of addictions are discussed and analyzed from a variety of theoretical perspectives. The applications of these specific theoretical models to various treatment settings are examined. Multicultural considerations are also addressed.

**CNS ED 6710 Advanced Strategies in Addictions Counseling: 3 semester hours**

Prerequisites: CNS ED 6700 or consent of instructor. Study of advanced, empirically supported counseling approaches and techniques for the treatment of addictive behaviors. An emphasis is placed on screening and assessment procedures and on matching interventions to individual client and community needs.

**CNS ED 6720 Counseling Individuals with Co-Occurring Disorders: 3 semester hours**

Prerequisites: CNS ED 6700 or consent of instructor. This course introduces the student to the special needs, concerns, and problems encountered when counseling clients who have co-occurring substance use and mental health problems. Subject areas include an overview of screening and assessment, evidence-based practices, counseling approaches and psychopharmacology for co-occurring disorders.

**CNS ED 6800 Rehabilitation Counseling: 3 semester hours**

Prerequisites: CNS ED 6000, CNS ED 6010, and CNS ED 6270 or CNS ED 6370, or consent of instructor. This course addresses: (a) the history of vocational rehabilitation; (b) specialty issues in rehabilitation counseling; (c) medical aspects of disability; (d) the rehabilitation process; (e) theories of rehabilitation; (f) the assessment process of individuals with disabilities; (g) the job placement and work adjustment process of individuals with disabilities; (h) ethical issues in rehabilitation counseling.

**CNS ED 6810 Integrating Religion And Spirituality In Counseling: 3 semester hours**

This course is for counselors and students wishing to develop the methods to integrate religion and spirituality in counseling and learn about counseling strategies for persons of various religious backgrounds, the link between health and religion, and ethics involved in the assessment and integration of religion and spirituality in practice.

**CNS ED 6820 Counseling Women Toward Empowerment: 3 semester hours**

Prerequisites: CNS ED 6000, CNS ED 6010, and CNS ED 6270 or CNS ED 6370, or consent of instructor. An introduction to Women's issues in counseling. Relational theory, healthy female development, and an overview of clinical issues most common to females will be presented.

**CNS ED 6830 Counseling African American Clients: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of instructor. This course is designed to promote an increased awareness and understanding of the psychological development and mental health needs of African American clients. This course also offers research-based theoretical strategies for counseling this diverse population.

**CNS ED 6840 Counseling Sexual Minorities: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of instructor. This course is focused on affirmative perspectives on lesbian, gay, bisexual, and transgender (LGBT) issues and populations. All of the major professional mental health organizations have formal ethical guidelines requiring non-discrimination with regard to LGBT populations and all of the organizations are active in promoting affirmative perspectives. Students will learn current perspectives in the fields of counseling and psychology on LGBT issues necessary for adequate practice or research in this area. A major focus will be on developing awareness and knowledge related to these populations.

**CNS ED 6850 Social Class and Poverty Issues In Counseling: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of the instructor. This course focuses on the experience of poor people in the United States. Specifically, the circumstances of poverty, the consequences of living in poverty (on behaviors, aspirations, relationships, education, and health including mental health), and the impact of poverty on the helping relationship will be addressed. Personal, social, and cultural aspects of poverty will be examined in both rural and urban settings. One objective of this course is to reduce the psychological distance between the poor client and the non-poor counselor. Included in this endeavor are specific attitude and techniques designed to maximize the quality of a counselor's work with poorer clients.

**CNS ED 6860 Human Sexuality in Counseling: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of instructor. This course will focus on integrating issues of human sexuality into the counseling process. The psycho-sexual development of the individual from birth throughout the life span will be discussed and compared to other developmental tasks at each age. Themes related to influences from family, culture, environment, socioeconomic, ethnic, and religious perceptions of sexuality will be integrated. The physiology of human sexual function will be addressed, including variations in sexual orientation and gender identity.

**CNS ED 7000 Advanced Theories And Foundations Of Counseling Psychology: 3 semester hours**

Prerequisites: Doctoral standing or instructor consent. A seminar on the discipline of counseling psychology, including its history, development, and current status. An important focus will be contemporary and emergent theories in the field.

**CNS ED 7010 Advanced Multicultural Counseling: 3 semester hours**

Prerequisites: CNS ED 6030 and doctoral standing or consent of instructor This advanced course addresses theories and research in multicultural counseling.



**CNS ED 7020 Seminar In Counseling Research: 3 semester hours**

Prerequisites: ED REM 6710, doctoral standing or consent of instructor  
The purpose of this course is to review and analyze current counseling research literature. Ethical issues will be addressed.

**CNS ED 7030 Counselor Education And Supervision: 3 semester hours**

Prerequisites: Master's degree in Counseling An introduction to clinical supervision in counseling. Theories, models, and research in supervision will be presented. Students will supervise master's level students in practicum and internship courses in counseling.

**CNS ED 7035 Counselor Education & Supervision Practicum: 3 semester hours**

Prerequisites: Admission to the Counseling Option in the Ed.D. or Ph.D. Program. Offers advanced training in counseling supervision. Students will supervise master's level students in practicum and internship courses in counseling. Students will be expected to maintain as assigned caseload of supervisees and attend three hours of weekly doctoral-level supervision.

**CNS ED 7400 Advanced Topics in School Counseling Leadership: 3 semester hours**

Prerequisites: Admission to the Counseling Option in the Ed.D. Program. Focuses on leadership roles and advanced skills for professional school counselors, school counseling supervisors, and evaluation strategies, and training and supervision strategies will be addressed, with a special emphasis on preventative and culturally sound interventions.

**CNS ED 7770 Doctoral Practicum: 3 semester hours**

Prerequisites: Doctoral Standing One hundred clock hours of on-campus doctoral-level supervised counseling practice. Students will counsel clients and will be introduced to teaching and supervising beginning counseling trainees in a clinical context. As a prerequisite to the Doctoral Internship, students will be expected to demonstrate competence in skills required of counselor educators and clinical supervisors. Students will receive 1.5 hours of group and 1 hour of individual supervision by a graduate faculty member.

**CNS ED 7780 Doctoral Internship: 1-6 semester hours**

Prerequisites: CNS ED 7770; ED REM 7771; ED REM 7781. A 100-hour field experience for each semester-credit hour of enrollment under the direction of a graduate faculty member. Students provide counseling services to clients at field sites, teach and supervise beginning counseling trainees, and conduct clinical research projects. Students are supervised by a graduate faculty member in two hours per week of group supervision, and they receive one hour per week of individual supervision by the field site supervisor.

## Educational Leadership and Policy Studies

### General Information

The Department of Educational Leadership and Policy Studies (ELAPS) faculty is housed on the second floor of Marillac Hall. Questions about the department and its offerings may be directed to the department office, 269 Marillac Hall (314) 516-5944.

### Graduate Studies

The ELAPS Department offers graduate programs in:

- K-12 Administration: including Missouri State School Administrator Certifications
- Higher Education: including Community College

- Adult and Community Education
- K-12 School Administration

Includes academic degree programs at the master's (M.Ed.), specialist (Ed.S.), and doctoral (Ed.D. and Ph.D.) levels. These programs are consistent with the academic requirements for Missouri State certification for elementary, middle, and secondary school administration as well as school superintendent and special education administration. The programs are accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Missouri Department of Elementary and Secondary Education (DESE).

Master of Education Administration with Community Education Emphasis  
This 32 credit hour program leads to a Masters degree for those interested in Community Education. The program is similar to that above in the M.Educational Administration except for the internship requirement and it does not lead to state certification.

## Master of Education: Educational Administration with Emphasis in Community Education

This is a 32-credit hour program for students interested in Community Education.

Competencies/Expectations/Outcomes that all students must demonstrate to complete the program successfully:

- School Administrator candidates in the College of Education are held to the Interstate School Leaders Licensure Consortium's Standards for School Leaders (ISLLC)
- A school administrator is an educational leader who promotes the success of all students by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community.
- A school administrator is an educational leader who promotes the success of all students by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.
- A school administrator is an educational leader who promotes the success of all students by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment.
- A school administrator is an educational leader who promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources.
- A school administrator is an educational leader who promotes the success of all students by acting with integrity, fairness and in an ethical manner.
- A school administrator is an educational leader who promotes the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal and cultural context.
- A school administrator is an educational leader who promotes the effective use of technology to maximize student learning and efficiently manage school operations.

The ISLLC standards pertain to Elementary and Secondary Administration and Community Education.



## Degree Requirements

### 2.10

ED FND 6421	Philosophy of Education <sup>3</sup>	3
ED FND 6435	History of Western Education <sup>3</sup>	3
or ED FND 4330	History of American Education <sup>3</sup>	
ED ADM 6202	Social Contexts Of Education	3
ED ADM 6203	Political Contexts Of Education	3

### 2.20 Research Core

ED ADM 6301	Education Administration Policy Research	3
ED REM 5730	Educational Statistics <sup>3</sup>	3

### 2.30 Community Education

ED ADM 6301	Education Administration Policy Research	3
ED ADM 6900	Internship	6

### 2.40 School Specialization

Select 2.41 or 2.42 listed below: <sup>2</sup> 6

#### 2.41 Elementary School Administration

ED ADM 6302	Elementary School Administration	
ELE ED 6411	Curriculum Leadership Elementary Programs	

#### 2.42 Secondary School Administration

ED ADM 6304	Secondary School Administration	
SEC ED 6415	Curriculum Leadership in Education	

Total Hours 33

<sup>1</sup> Exit Requirement--Taken within the last 9 semester hours of the M.Ed. program.

<sup>2</sup> Students take either section 2.41 or section 2.42, not both sections.

<sup>3</sup> This course will not be offered in 2014-2015. Please contact the department for more information.

## Master of Education in Adult & Higher Education

The M.Ed. in Adult & Higher Education is intended for

1. faculty and other educators who want to improve their adult teaching skills;
2. persons who occupy and seek to advance into administrative or management positions in a variety of educational settings; and
3. others who work with adults in a variety of agencies.

The degree program includes courses in foundations, curriculum and teaching (including distance learning), organization and administration, research, and electives so that students can create an emphasis area to fit their career goals. To help address student interests, special topic seminars are offered from time to time. An internship in the student's emphasis area is a required exit experience. Students elect either the adult education or higher education emphasis area.

## Admission Requirements

This degree program follows the policies of The College of Education and the Graduate School relating to admissions, academic standards, residency, transfer credit, time limitations, and thesis options (see Graduate Study in the Bulletin). The minimum number of hours required for the M.Ed. degree is 32 credit hours.

## Education Requirements

### Foundation Courses

Select a course focusing on the learner from the following: 3

- ADULT ED 6410 The Adult Learner (p. 330)
- or HIGHERED 6474 College Student (p. 330)

Select a course in historical foundations from the following: 3

- ADULT ED 6411 History Of Adult Education (p. 330)
- or HIGHERED 6457 History And Philosophy Of American Higher Education (p. 330)

Select a course on the improvement of instruction from the following: 3

- ADULT ED 6413 Improvement Of Instruction In Adult Education (p. 330)
- HIGHERED 6477 Curriculum In Higher Education (p. 330)
- ED PSY 7647 Teaching For Learning In The University (p. 330)

Select one of the following: 3-6

- ADULT ED 6412 Philosophical Foundations Of Adult Education (p. 330) and Curriculum Theory And Development In Adult Education <sup>1</sup> & ADULT ED 6414 Education <sup>1</sup> (p. 330)
- HIGHERED 6478 Organization And Administration Of Higher Education (p. 330)

### Adult and Higher Education Electives

Select a minimum of 12 hours from the following: 12

- ADULT ED 6230 Adult Learning And Development (p. 330)
- ADULT ED 6415 Survey Of Adult Distance Education (p. 330)
- ADULT ED 6417 Multicultural Issues In Adult Education (p. 330)
- ADULT ED 6418 Assessment In The Adult Classroom (p. 330)
- ADULT ED 6419 Developing Intercultural Competence (p. 330)
- ADULT ED 6420 Survey Of Human Resource Development And Adult Education (p. 330)
- ADULT ED 6432 Teaching In The Community College (p. 330)
- ADULT ED 6490 Directed Readings In Adult Learning (p. 330)
- ADULT ED 6491 Problems In Adult Education (p. 330)
- ADULT ED 640 Seminar In Adult Education Research (p. 330)
- ADULT ED 6540 Comparative International Adult and Higher Education (p. 330)
- HIGHERED 540 Current Issues In Higher Education (p. 330)
- HIGHERED 5402 Student Affairs Administration (p. 330)
- HIGHERED 640 Seminar (p. 330)

HIGHERED 6405 Financial Issues In Higher Education (p. 330)	
HIGHERED 6410 Governance Of Higher Education (p. 330)	
HIGHERED 6411 Ethics in Higher Education Administration (p. 330)	
HIGHERED 6412 Legal Aspects Of Higher Education (p. 330)	
HIGHERED 6421 Legal Aspects Of Postsecondary Teaching (p. 330)	
HIGHERED 6422 Policy Analysis Of Higher Education (p. 330)	
HIGHERED 6430 The Community College (p. 330)	
ED ADM 6601 Administration Of Adult And Community Education (p. 330)	
ED ADM 6602 Programming In Community And Adult Education (p. 330)	
ED PSY 6111 Psychology Of Education (p. 330)	
ED TECH 5340 Selection And Utilization Of Educational Multimedia (p. 330)	
ED TECH 6416 Teaching & Learning With Technology: Graphical Representational Tools (p. 330)	
ED TECH 6436 Computer-Mediated Communication In Education (p. 330)	
ED TECH 6437 Distance Learning Via Networks And Telecommunications (p. 330)	
ED TECH 6452 Educational Multimedia Design (p. 330)	
ED TECH 6454 Instructional Video Production (p. 330)	

**Research Course(s)**

Select 3-6 hours from the following: 3-6

ED REM 6707 Classroom Measurement And Evaluation (p. 330)	
ED REM 6709 Educational And Psychological Measurement (p. 330)	
ED REM 6710 Educational Research Methods and Design <sup>2</sup> (p. 330)	

**Exit Requirement**

Select one of the following taken during the last 9 semester hours of the program: 3

HIGHERED 6910 Internship (3 credit hours) (p. 330)	
or ADULT ED 6000 Internship (p. 330)	

Total Hours 30-36

<sup>1</sup> Both classes are required for Adult Ed program

<sup>2</sup> Required for Higher Education

<sup>1</sup> Both classes are required for Adult Ed program

<sup>2</sup> Required for Higher Education

## Adult Education and Literacy Certification

### Career Adult Education and Literacy Certificate – Career Continuous

Career Continuous AEL classification will be issued by DESE to an applicant upon completion and verification of the following:

- Four years of state-approved teaching experience;
- Participation in a two-year mentoring program;
- Beginning Teacher Assistance Program (currently called ITW);
- 60 hours\* of professional development (currently ETW)
- Successful participation in an annual performance-based teacher evaluation.

\*Suggested courses include the following:

ADULT ED 4311 Teaching Basic Reading Skills To Adults	3
ADULT ED 6230 Adult Learning And Development	3
ADULT ED 6404 Seminar In Adult Education Research	1-10
ADULT ED 6410 The Adult Learner	3
ADULT ED 6411 History Of Adult Education	3
ADULT ED 6412 Philosophical Foundations Of Adult Education	3
ADULT ED 6413 Improvement Of Instruction In Adult Education	3
ADULT ED 6414 Curriculum Theory And Development In Adult Education	3
ADULT ED 6417 Multicultural Issues In Adult Education	3
ADULT ED 6418 Assessment In The Adult Classroom	3

### Learning Outcomes

The Adult & HE student should demonstrate and/or have an understanding of:

- Integrating teaching, learning, and technology.
- Awareness of education and educational research as a lifelong process.
- The unique role of shared governance in post-secondary institutions.
- The legal, social, and political contexts relating to the organization of post-secondary institutions.
- Student learning and development, including learning communities and curricular issues.
- Issues related to faculty and faculty development.
- Critical inquiry, including research courses and internships.
- Historical periods and historical figures in adult and higher education.
- Characteristic issues associated with different historical periods;
- Role of adult and higher education during various historical contexts.
- Knowledge of the array of methods, techniques, and research available for helping adults learn and grow.
- Application of the various techniques for helping adult learners.
- Philosophical perspectives informing the field of adult education and higher education.

### Graduate Certificate in Institutional Research

The Post-Master's Certificate in Institutional Research (CPIR) is for academics who want training in Institutional Research in preparation for working in an IR Office at a postsecondary institution, a government

agency, or a private education organization. The program consists of 18 hours and may be taken as part of a doctoral program. Of the 18 hours, 12 are in the required core (6 hours are in research methods and 6 hours in IR seminars), plus a 3-hour Higher Education (HIGHERED) or an Educational Research (ED REM) elective and a 3-hour capstone. Students may transfer up to 5 hours of post-Master's work into the program with the approval of the advisor.

## Graduate Certificate in Community College Leadership

The graduate certificate program in Community College Leadership (CCL) is a collaborative effort between the University of Missouri – Kansas City (UMKC) School of Education and the University of Missouri – St. Louis (UMSL) College of Education. The certificate program will allow participating candidates to develop skills and knowledge through completing the 18 hour curriculum outlined in the following section:

HIGHERED 6430 (p. 330)	The Community College (Taught by UMSL Faculty - Entry Level course)	3
HIGHERED 6431 (p. 330)	Community College Leadership (Taught by UMSL Faculty )	3
EDUL 5559	Current Issues in the Community College (Taught by UMKC Faculty)	3
EDUL 5553	Supervising and Managing People (Taught by UMKC Faculty)	3
Elective (Can be taken from either institution or an approved elective from the student's home institution)		3
Select one of the following (Capstone Experience):		3
HIGHERED 6900 (p. 330)	Internship (UMSL)	
EDUL 5571	Internship in Higher Education (UMKC)	
Total Hours		18

## Graduate Certificate in Student Affairs Administration & Leadership

The graduate certificate program in Student Affairs Administration & Leadership (SAAL) would prepare participants to develop the knowledge, skills and abilities necessary to pursue entry-level staff and administrative positions with a concentrated emphasis in student affairs administration and leadership. Students would develop the requisite knowledge and skills upon completion of an 18-hour curriculum which is outlined below:

HIGHERED 5402 (p. 330)	Student Affairs Administration (Introductory course)	3
HIGHERED 6406 (p. 330)	Governance Of Higher Education	3
HIGHERED 6408 (p. 330)	Legal Issues in Student Affairs	3
HIGHERED 6409 (p. 330)	Critical Issues in Student Affairs	3
HIGHERED 6410 (p. 330)	Ethics in Higher Education Administration	3
HIGHERED 6476 (p. 330)	Organization And Administration Of Higher Education (Exit course)	3
Total Hours		18

## Adult Education Courses

### **ADULT ED 4311 Teaching Basic Reading Skills To Adults: 3 semester hours**

A study of the reading process and of the characteristics of adult learners with a focus on instructional techniques and materials useful in upgrading the performance of adults with deficient reading skills.

### **ADULT ED 6230 Adult Learning And Development: 3 semester hours**

Prerequisites: ED PSY 6210 or ED PSY 6111, or ADULT ED 6410. A study of how life stage theories and theories of learning pertain to the adult learner. The research bases of these theories will be explored in relationship to instructional practice with adult learners.

### **ADULT ED 6404 Seminar In Adult Education Research: 1-10 semester hours**

Prerequisites: ADULT ED 6410 or consent of instructor A review of current research on various topics in the field of adult education. An in-depth study of these research topics will be conducted. Application to the field of adult education will be considered. Special focus will be placed on assessing and improving competency in educational, corporate and community settings.

### **ADULT ED 6410 The Adult Learner: 3 semester hours**

This course is designed for those who help adults learn in a variety of settings. A study will be made of the characteristics of Adult Learners and various theories of how they learn, as well as the implications of these characteristics and theories for Adult Education Research, Programming, Curriculum, Planning, and Instructional Practice.

### **ADULT ED 6411 History Of Adult Education: 3 semester hours**

Prerequisites: ADULT ED 6410. In this course the historical foundation of the field of Adult Education in America will be studied. This will include the major theorists and their contributions; together with the continuing education of the adult in a progressive social context.

### **ADULT ED 6412 Philosophical Foundations Of Adult Education: 3 semester hours**

Prerequisites: ADULT ED 6410 or consent of instructor. A comprehensive, systematic philosophical foundation for adult education. In this course the philosophical underpinnings of the various approaches to the education of adults will be explored. These include the role of the learner, the teacher, and overall objectives within each philosophy.

### **ADULT ED 6413 Improvement Of Instruction In Adult Education: 3 semester hours**

Prerequisite: ADULT ED 6410 or consent of instructor. A study of selected methods and instructional techniques appropriate for the teaching of adults. An examination of current research will be made as it relates to the problems of instructing adults.

### **ADULT ED 6414 Curriculum Theory And Development In Adult Education: 3 semester hours**

Prerequisite: ADULT ED 6410 or consent of instructor. A study of curriculum theory and its application to adult education. Particular emphasis will be placed on the development of model curricula for various programs in adult education.

### **ADULT ED 6415 Adult Literacy Perspectives: 3 semester hours**

Prerequisites: ADULT ED 6410. Students will draw upon a variety of disciplines in considering the ideological, political, economic, moral, and pedagogical dimensions of literacy education. This is significant since popular, as well as scholarly, views of literacy assert its importance to a variety of personal and societal goals. In addition to a theoretical perspective, students will explore practical applications of literacy.

**ADULT ED 6416 Survey Of Adult Distance Education: 3 semester hours**

Prerequisites: ADULT ED 6410. This course is designed as a survey of distance education covering the concept, theories, history, present practice, delivery systems, major issues and future directions of the field of distance learning. Emphasis is on research and practice in the U.S.; however, since much of the literature in the field has been written by educators in other countries, the course will explore topics and issues in distance education from an international perspective, identifying similarities and differences among countries as they relate to adult learning.

**ADULT ED 6417 Multicultural Issues In Adult Education: 3 semester hours**

Prerequisites: ADULT ED 6410. In this course the learners will discuss cultural diversity from an adult education perspective. Topics include cultural self-awareness, challenges/issues in intercultural educational settings, theoretical perspectives of multicultural education, and practitioner concerns and strategies for implementing multiculturalism in adult education settings.

**ADULT ED 6418 Assessment In The Adult Classroom: 3 semester hours**

Prerequisites: ADULT ED 6410 and ED REM 6707 or consent of instructor. This course addresses assessing how effectively adult educators are facilitating adult learning. Emphasis will be on knowledge and skills, learner characteristics, and learner reactions to instruction through the use of formative assessment of both student learning and instructional effectiveness in the adult classroom. Special attention will focus this assessment in the adult classroom within educational, corporate, community, and non-formal settings.

**ADULT ED 6419 Developing Intercultural Competence: 3 semester hours**

Prerequisites: ADULT ED 6410. The focus of this course is on intercultural competence theories and concepts designed to build personal, academic, and professional skills. It is intended to enable the individual to function more successfully in a global environment.

**ADULT ED 6420 Survey Of Human Resource Development And Adult Education: 3 semester hours**

Prerequisites: Graduate standing and permission of instructor. This course provides an overview of the fields of human resource development and adult education. The many societal contexts within which the training of adults and organization development occur will be examined. The systems theory that frames a discussion of adult education, training, and organization development is also explored. The unique characteristics of each field will be represented as well as the ways in which the two fields come together along some general concepts: Definitions, philosophies, goals, sponsoring agencies, professional roles, processes, participants, and resources.

**ADULT ED 6424 Intervention Determination In Adult Learning & Human Resource Dev: 3 semester hours**

Prerequisite: ADULT ED 6410. A variety of strategies will be studied with a view to examining systemic problems in workforce and adult learning situations. The determination of interventions for program planning and development is the major focus. As key outcomes for this course, learners will be able to design and develop plans, and distinguish among workplace, community and educational needs that can be met with educational interventions and those that require other, and more appropriate, nontraining solutions. While specifically focused on HRD applications, the content of this course will apply to any educational setting for adults.

**ADULT ED 6432 Teaching In The Community College: 3 semester hours**

This course is designed for students considering a teaching career in the community college. The main emphasis of the course will be to expose students to the unique features of the community college with respect to the special goals of the institution, variety of degree and nondegree programs, and diversity of community college students. A second objective will be to offer a brief review of teaching techniques that will be useful in the community college classroom.

**ADULT ED 6494 Directed Readings In Adult Learning: 1-6 semester hours**

Prerequisites: Graduate Standing, ADULT ED 6410 and consent of instructor. Self-directed learning, as a key concept in Adult Education, is encouraged as a means of understanding the adult experience, both personally and professionally, and is a recognized core competency in the field of Adult Education. This course consists of supervised, independent study into the current research, literature, and issues in the area of Adult Learning. Learners are given the opportunity to meet with other learners and the instructor on a regular basis to share resources, ideas, and to gain feedback.

**ADULT ED 6497 Problems In Adult Education: 1-10 semester hours**

Prerequisite: ADULT ED 6410 or consent of instructor. Independent study on topics in adult education.

**ADULT ED 6540 Comparative International Adult and Higher Education: 3 semester hours**

Prerequisites: ADULT ED 6410 or HIGHERED 6476. A study of lifelong learning as well as adult and higher education with a view to a more global understanding of educational systems. Selected western and non-western educational themes and issues will be viewed from the context of their respective cultures.

**ADULT ED 6990 Internship: 1-10 semester hours**

Prerequisite: ADULT ED 6410 or consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**ADULT ED 7820 Policy Issues in Adult Education: 3 semester hours**

This course should be taken immediately after admittance into the doctoral program. In this course, students will engage in a systematic examination of issues related to adult education. This will include, but not be limited to, legislative policies, delivery systems, and occupational issues. Students will be expected to examine trends in adult education practice and/or related fields.

**ADULT ED 7822 Advance Research in Adult Education: 3 semester hours**

Prerequisites: ADULT ED 7820. This course will build on ADULT ED 7820 in which students will engage in a systematic and critical examination and discussion of research related to adult education and related area topics.

**ADULT ED 7824 Communicating Theory and Practice in Adult Education: 3 semester hours**

Prerequisites: ADULT ED 7822. Students will learn the processes involved in writing for publication. In conjunction with instructor, students will engage in a project that merges theory and practice. Course should be taken the semester before a student enrolls in EDUC 7950.

**Educational Administration Courses**

**ED ADM 6000 Seminar: 1-10 semester hours**



**ED ADM 6200 Demographic Contexts of Education: 3 semester hours**

Prerequisites: Graduate Standing. This course is a critical examination of the impact of population changes on schools. Students will have the opportunity to investigate the social and economic dimensions of demographic shifts that affect demand for and organization of education services.

**ED ADM 6201 Knowledge Contexts Of Education Administration And Policy: 3 semester hours**

Prerequisites: Admission to master, doctoral, and/or certification programs in Education Administration or consent of instructor. This course is a survey of the various views of knowledge that have influenced the nature of the organizational structures and policies of American educational institutions. The course is framed both by the purposes of American education and the "scientific management" movement of the first quarter of the 20th Century.

**ED ADM 6202 Social Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor This course is a critical examination of different perspectives on the social structures within which education policies are constituted and their concomitant practices implemented.

**ED ADM 6203 Political Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor This course is a critical examination of those aspects of local, state, & federal politics which significantly influence the political contexts within which education policies are constituted and their concomitant practices implemented.

**ED ADM 6204 Economic Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor This course is a critical examination of those aspects of local, state, and national economic structures which influence the nature of education policies and their concomitant practices.

**ED ADM 6205 Legal Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor This course is a critical examination of both (1) local, state, and federal laws and (2) Western notions of justice within which education policies are constituted and their concomitant practices implemented.

**ED ADM 6301 Education Administration Policy Research: 3 semester hours**

Prerequisites: Completion of at least twenty-four credit hours towards the M.Ed. in Education Administration or consent of instructor. A study of issues and trends in basic, applied, and action research in education policymaking.

**ED ADM 6302 Elementary School Administration: 3 semester hours**

Prerequisites: Completion of at least fifteen credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the elementary school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of elementary schools.

**ED ADM 6303 Middle School Administration: 3 semester hours**

Prerequisites: Completion of at least fifteen credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the middle school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of middle schools.

**ED ADM 6304 Secondary School Administration: 3 semester hours**

Prerequisites: Completion of at least fifteen credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the secondary school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of secondary schools.

**ED ADM 6305 School District Administration: 3 semester hours**

Prerequisite: Enrollment in Advanced Certification Program and/ or consent of instructor. Course focuses on current research about school district administration; also deals with major central office issues including: board/superintendent relations, central office organization, the function and authority of assistant superintendents and program directors, and the administrative team approach to school district administration.

**ED ADM 6306 Special Education Administration: 3 semester hours**

Prerequisites: Completion of graduate degree in Special Education, Education Administration or consent of instructor A study of organizational issues in special education and implications for practices and procedures. Specific attention will be given to special education delivery systems, compliance standards, funding sources, and regulatory standards.

**ED ADM 6307 Integrated Curriculum For Special Education Administrators: 3 semester hours**

Prerequisites: Graduate Standing Development of skills to understand, supervise and evaluate the integration and differentiation of curriculum. Intended for special education administrators.

**ED ADM 6315 Middle School Educational Philosophy: 3 semester hours**

An in-depth examination of the educational philosophy and historical basis of middle level schools, and the relationship between philosophy and middle school organizational practices. Includes a review of the research, organizational structures, and current trends and practices.

**ED ADM 6317 Supervision And The Middle School Child: 3 semester hours**

The unique developmental characteristics and needs of early adolescents are explored through a variety of supervisory activities involving middle level students, teachers, and administrators. The implications of economic and ethnic diversity for middle level schools will also be addressed.

**ED ADM 6401 School Staff Development And Supervision: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor This course provides an examination of the conceptual bases and practical applications of staff development and supervision in educational settings. It explores relevant conceptual models presented as heuristic devices to consider a variety of administrative techniques to assess needs, plan, deliver, and evaluate staff development and supervision programs in schooling.

**ED ADM 6402 School Personnel Administration: 3 semester hours**

Prerequisites: Advanced standing and/or consent of instructor This course is a comprehensive, systematic study of problems in planning, recruitment, selection, induction, and retention relative to school personnel.

**ED ADM 6403 Problems In School Public Relations: 3 semester hours**

Prerequisites: Advanced standing and/or consent This course is an examination of a range both traditional and critical perspectives relevant to home-school-community relations.

***ED ADM 6404 Collective Negotiations In Education Organizations: 3 semester hours***

Prerequisites: Advanced graduate standing and/or consent of instructor  
This course focuses on the concepts, issues, and processes involved with collective negotiations (bargaining) in American educational organizations. The major issues addressed in the course include recognition procedures, bargaining unit determination, the scope of negotiations, the proposal and counterproposal, compromise, impasse procedures, and master contract management.

***ED ADM 6407 School Staff Development & Supervision- Special Ed Administration: 3 semester hours***

Prerequisites: Completion of graduate degree in Special Education, Education Administration or consent of instructor. This course provides an examination of the conceptual bases and practical application of staff development and supervision for special education settings for staffs serving special education students. It explores relevant conceptual models presented as heuristic devices to consider a variety of administrative techniques to assess needs, plan, deliver, and evaluate staff development and supervision programs serving students with special education needs.

***ED ADM 6449 Using Technology In Administration Processes: 3 semester hours***

Prerequisites: A course in measurement, statistics, or evaluation, or consent of instructor. Same as ED TECH 6449. The course will explore how the use of data analysis with technology can be applied in the administration of schools or other work settings. Administrators will explore software tools and their implications for making decisions. A case study will be completed on the implementation of a technology in a school or other appropriate setting.

***ED ADM 6497 Problems: 1-10 semester hours******ED ADM 6501 Principles Of Public School Finance In Missouri: 3 semester hours***

Prerequisites: Advanced graduate standing and/or consent of instructor  
Course is designed to analyze and study critical areas of public school finance at the local and state levels, highlighting the role of such factors as legislative procedures, principles of local and state support, budgeting and accounting procedures, assessment of property, etc.

***ED ADM 6502 School Buildings And Sites: 3 semester hours***

Prerequisites: Advanced graduate standing and/or consent of instructor  
This course deals with methods and procedures for (1) projecting the future building and facility needs of a public school district, (2)supervising actual planning and construction of educational facilities, (3)optimizing the use of current facilities, and (4)maintenance of buildings, grounds, and equipment.

***ED ADM 6503 Organizational Change In Education: 3 semester hours***

Prerequisites: Advanced graduate standing and/or consent of instructor  
This course deals with (1)developing strategies for assessing educational needs, (2)methods of assessing the school's "organizational health", (3)the designing of educational change strategies involving theory-based models, (4)using systemsanalysis techniques to implement educational change, and (5) methods of involving students and staff in incorporating meaningful organizational change strategies in educational institutions.

***ED ADM 6601 Administration Of Adult And Community Education: 3 semester hours***

Prerequisites: Graduate standing and consent of instructor  
A course designed to familiarize the student with the structure, purpose, and processes of community education with particular emphasis being placed on the administrative theories and functions of adult education.

***ED ADM 6602 Programming In Community And Adult Education: 3 semester hours***

Prerequisites: ED ADM 6601 and/or consent of instructor  
Study and analysis of basic situations in which community and adult educational programming take place. Within this framework, application will be made of a fundamental series of steps essential to sound educational programming.

***ED ADM 6900 Internship: 1-10 semester hours***

Prerequisite: Consent Of Instructor. Closely Supervised Experience In A Field Setting Under The Direction Of A Graduate Faculty Member. An Appropriate Level Of Competence And Evidence Of Growth In The Professional Role Must Be Demonstrated By The Intern. The Internship Will Include Planning, Research, Evaluation, And Related Professional Activities.

***ED ADM 7050 The Research Proc I: Framing Research Questions Within The Ed Lit: 3 semester hours***

Same as EDUC 7050. Prerequisites: Admission to the Ed.D. or Ph.D. in Education Programs. An overview of the essential elements of research proposals and familiarization with the techniques and tools used to identify important research questions within the education literature. Emphasis is placed on exploring the research literature and both framing and justifying research questions within that literature.

***ED ADM 7150 Educational Inquiry: 3 semester hours***

Prerequisites: ED ADM 7050  
This course is required for doctoral students in the Educational Administration program. The course supports the development of the student's individual research topic and explores options for methodological approaches to education policy and administration issues.

***ED ADM 7250 The Change Process In Schools And School Districts: 3 semester hours***

Prerequisites: ED ADM 7050 and ED ADM 7150  
Advanced study of the literature pertaining to the theories of action and strategies for leading and sustaining change in schools and school districts. Emphasis is on the framing of research questions through the perspective of the literature on the change process in the schools.

***ED ADM 7800 Educational Administration Doctoral Seminar: 1-6 semester hours***

Prerequisites: Admission to doctoral program and consent of instructor  
Intensive directed study of selected issues related to the administration of educational institutions.

## **Educational Foundations Courses**

***ED FND 3251 Black Americans In Education: 3 semester hours***

An examination and analysis of conditions affecting the education of black Americans and their schools, with emphasis on relationships between schools and the black community, and needed changes in education.

***ED FND 6422 Analysis Of Educational Issues: 3 semester hours***

Prerequisite: A course in philosophy of education or a course in history of education or consent of instructor. A critical examination of issues about the elementary and secondary schools. This is done through the analysis of the procedures, resources and goals that guide school policies and practices.

***ED FND 6430 Critical Race Theory in Education: 3 semester hours***

Prerequisites: Graduate Standing. A treatment of Critical Race Theory (CRT) in educational research. At the end of the semester, students will be able to articulate a personal perspective on CRT and how it could be utilized as a research philosophy and methodology.

**ED FND 6431 History of African American Education: 3 semester hours**

Prerequisites: Graduate Standing. Exploration of the history of education for African Americans. Among the topics investigated will be provision of schooling by the community and/or state; curriculum debates (i.e., vocational vs. classical), and official policies (and informal practices) surrounding segregation, desegregation, and resegregation. Also explores contested interpretations and the myriad ways that memories and meanings intersect through individuals and communities over education and its value.

**ED FND 6497 Problems: 1-10 semester hours****Higher Education Courses****HIGHERED 5401 Current Issues In Higher Education: 3 semester hours**

Prerequisites: Graduate admission Familiarizes student with nature and characteristics of American higher education. Students learn about the structure of higher education, the roles played by the various constituencies, and current issues.

**HIGHERED 5402 Student Affairs Administration: 3 semester hours**

Prerequisite: Graduate Admission A survey course in student personnel administration with an emphasis on understanding the college student and on learning ways to meet both his/her academic and nonacademic needs.

**HIGHERED 6404 Seminar: 1-10 semester hours**

Prerequisite: Graduate standing.

**HIGHERED 6405 Financial Issues In Higher Education: 3 semester hours**

Prerequisite: Graduate standing Provides an overview of the state/federal funding mechanisms for higher education in the U.S. Addresses practices in budgeting at various types of postsecondary institutions.

**HIGHERED 6406 Governance Of Higher Education: 3 semester hours**

Prerequisites: Graduate admission Concentrates on the study of the unique system of governance in higher education, including faculty, instructional, system, and state governing mechanisms.

**HIGHERED 6408 Legal Issues in Student Affairs: 3 semester hours**

Prerequisite: Graduate Standing. Provides an exploration of the legal and philosophical principles that guide decision-making in higher education institutions and the courts. It also includes a detailed, in-depth analysis of legal cases that have an impact on students in private and public two- and four-year colleges and universities in the United States.

**HIGHERED 6409 Critical Issues in Student Affairs: 3 semester hours**

Prerequisites: Graduate Standing. Explores the historical development and foundational theories of the student affairs profession. This course also explores the organization and management of programs and services, the formulation of policies that guide student personnel service programs, and the integration of program elements, research, current problems and trends.

**HIGHERED 6410 Ethics in Higher Education Administration: 3 semester hours**

Prerequisites: Graduate standing. Students will examine the historical philosophical foundations of ethics and their implications for faculty, staff and students in the academic workplace.

**HIGHERED 6421 Legal Aspects Of Postsecondary Teaching: 3 semester hours**

Prerequisites: Graduate Admissions Examines legal issues of interest to faculty. Areas include faculty (contracts, grievances/appeals/affirmative action, free speech, tenure) and student (disability, sexual harassment, academic integrity, free speech, classroom incivility, student behavioral standards, grades) issues.

**HIGHERED 6422 Policy Analysis Of Higher Education: 3 semester hours**

Prerequisites: Graduate admission Introduces students to the analysis of higher education public policy. Includes state and local policy analysis and examination of legislative history of major federal higher education laws.

**HIGHERED 6430 The Community College: 3 semester hours**

Prerequisites: Graduate Admission The purpose of this course is to develop an understanding of the two-year college - its past, present and future. Examines history, operations, funding, internal constituents, curricular mission, societal role, and current issues.

**HIGHERED 6431 Community College Leadership: 3 semester hours**

Prerequisite: Graduate Admission Introduces students to leadership theory and practice and the literature of leadership development. Applies theory and practice to the unique role of the leader in community colleges, including the community college presidency. Particular emphasis is given to the diverse roles expected of the successful leader in today's community college.

**HIGHERED 6432 Current Issues In Community College Education: 3 semester hours**

A review and analysis of current issues affecting community college students, instruction, administration, policy and community relations. HIGHERED 6430, The Community College, is recommended before taking this course for those not currently working in community college settings.

**HIGHERED 6440 Issues In Institutional Research I: 3 semester hours**

Prerequisites: Graduate standing Provides a history and overview of institutional research in postsecondary education. Other areas of interest include student issues, student outcomes, higher education funding, productivity funding, and legal issues.

**HIGHERED 6441 Issues In Institutional Research II: 3 semester hours**

This course provides the study of key issues in institutional research, including faculty workload and salary, program assessment, fact books, peer institutions, national databases, and strategic planning.

**HIGHERED 6473 Curriculum In Higher Education: 3 semester hours**

Prerequisite: Graduate standing The development, implementation, and assessment of curriculum in higher education as well as historical and philosophical perspectives; major figures and emerging trends are included.

**HIGHERED 6474 The College Student: 3 semester hours**

Prerequisite: Graduate standing A comprehensive overview of the theories and research related to college and university student development. Particular attention is given to student demographics, patterns of growth and development, and attitudinal changes.

**HIGHERED 6476 Organization And Administration Of Higher Education: 3 semester hours**

Prerequisites: Graduate Standing This course includes the study of missions, governance, and organizational structures of American higher education institutions. Within this context, particular attention is given to administrative roles and responsibilities and issues of leadership.

**HIGHERED 6477 History And Philosophy Of American Higher Education: 3 semester hours**

Prerequisite: Graduate Standing This course is a systematic study of the historical and philosophical contexts that have conditioned the evolution of American higher education. Particular attention is given to significant events, trends, and movements within American higher education.

**HIGHERED 6497 Problems: 1-10 semester hours**

Prerequisites: Graduate standing and consent of instructor.

**HIGHERED 6900 Internship: 1-10 semester hours**

Prerequisites: Graduate standing and consent of instructor Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**HIGHERED 7800 Higher Education Doctoral Seminar: 1-6 semester hours**

Prerequisites: Doctoral standing or consent of instructor Intensive directed study of selected issues related to the administration of higher education institutions.

## Educational Psychology, Research, and Evaluation

### General Information

Faculty in the Department of Educational Psychology, Research, and Evaluation are housed on the fourth floor of Marillac Hall. Information about course offerings may be obtained in the department office, 469 Marillac Hall.

The department coordinates the Educational Psychology and Educational Research and Evaluation Methods courses for the various undergraduate and graduate programs that are offered by the College of Education.

Programs offered by the department of Educational Psychology, Research and Evaluation include a Master's of Education in Educational Psychology degree, an Educational Specialist in School Psychology degree, and an emphasis in Educational Psychology within the College of Education's Doctor of Philosophy in Education degree. A Graduate Certificate in Program Evaluation in Education also is available through the department.

### Master of Education in Educational Psychology

The Division of Educational Psychology, Research, and Evaluation provides training in the theory, research and practice of psychological mechanisms underlying teaching, learning, and human development of students as well as the related school processes and structures. It also provides instruction in educational research, psychoeducational assessment, and school psychology.

The M.Ed. in Educational Psychology provides training in general principles, research and practices of educational psychology as well as offering optional emphases in (1) Character Education and Citizenship Education, and (2) Educational Research and Program Evaluation. The M.Ed. in Educational Psychology can serve as an advanced

When fulfilling the requirements for the M.Ed. in Educational Psychology degree, candidates may choose one of two optional emphasis areas,

Character and Citizenship Education or Educational Research and Program Evaluation, by completing the corresponding courses below.

The M.Ed. degree consists of 33 hours of graduate coursework in the following areas:

- A. Foundations (15 hours)
- B. Electives (15 hours)
- C. Capstone Experience (3 hours)

All candidates take the same core/foundations courses that include 3 hours of educational foundations of educational psychology, 3 hours of learning and cognition, 3 hours of human development, and 6 hours of statistics and research design. The specific courses chosen for the 15 hours of electives and 3 hour capstone experience will vary according to the candidate's interests.

### Emphasis Areas

When fulfilling the requirements for the M.Ed. in Educational Psychology degree, candidates may choose one of two optional emphasis areas, Character and Citizenship Education or Educational Research and Program Evaluation, by completing the corresponding courses below.

### M.Ed. in Educational Psychology (33 hours)

#### Foundations

Educational Foundations 3

Choose one of the following:

ED PSY 6111 Psychology Of Education  
(p. 338)

ED PSY 6530 Foundations Of School Psychology  
(p. 338)

Learning and Cognition 3

ED PSY 6310 Psychology Of Learning Processes  
(p. 338)

Human Development 3

Choose one of the following:

ED PSY 6210 Life-Span: Individual and Family Development  
(p. 338)

ED PSY 6215 Psychology Of Early Childhood Development  
(p. 338)

ED PSY 6220 Psychology Of The Elementary School Child  
(p. 338)

ED PSY 6225 The Psychology Of Adolescence  
(p. 338)

Research Methods 6

ED REM 6735 Statistical Analysis For Education Research  
(p. 338)

ED REM 6750 Advanced Research Design In Education  
(p. 338)

Electives 15

Choose five of the following <sup>1</sup>

ED PSY 6030 Instruction, Learning And Assessment  
(p. 338)

ED PSY 6109 Learning And Development In Secondary School  
(p. 338) Settings



ED PSY 6111	Psychology Of Education (p. 338)
ED PSY 6113	Psychopathology And Diagnosis (p. 338)
ED PSY 6115	Personality And Social Development (p. 338)
ED PSY 6210	Life-Span: Individual and Family Development (p. 338)
ED PSY 6215	Psychology Of Early Childhood Development (p. 338)
ED PSY 6217	Foundations Of Citizenship Education (p. 338)
ED PSY 6218	Coaching Sports For Character (p. 338)
ED PSY 6220	Psychology Of The Elementary School Child (p. 338)
ED PSY 6225	The Psychology Of Adolescence (p. 338)
ED PSY 6404	Seminar (p. 338)
ED PSY 6417	Current Perspectives On Citizenship Education (p. 338)
ED PSY 6440	Moral Development And Education (p. 338)
ED PSY 6444	Cognition And Technology (p. 338)
ED PSY 6445	Character Education And Development (p. 338)
ED PSY 6448	Technology-Supported Inquiry Learning (p. 338)
ED PSY 6450	Advanced Methods In Character Education (p. 338)
ED PSY 6497	Problems (p. 338)
ED PSY 6530	Foundations Of School Psychology (p. 338)
ED PSY 6532	Psychoeducational Differences (p. 338)
ED PSY 6536	Biological Bases Of Behavior (p. 338)
ED PSY 6540	Psychoeducational Interventions (p. 338)
ED PSY 6542	Social-Emotional and Behavior Interventions (p. 338)
ED PSY 6545	Consultation In Schools And Related Settings (p. 338)
ED PSY 6550	Professional Issues In School Psychology (p. 338)
ED REM 6497	Problems (p. 338)
ED REM 6707	Classroom Measurement And Evaluation (p. 338)
ED REM 6709	Educational And Psychological Measurement (p. 338)
ED REM 6712	Survey Research Methods In Education (p. 338)

ED REM 6714	Action Research In Education (p. 338)
ED REM 6716	Academic Assessment and Intervention (p. 338)
ED REM 6718	Psychoeducational Assessment And Intervention (p. 338)
ED REM 6719	Advanced Psychoeducational Assessment and Intervention (p. 338)
ED REM 6730	Educational Program Evaluation (p. 338)
ED REM 6732	Advanced Theory And Practice In Educational Program Evaluation (p. 338)
<b>Capstone Experience</b>	
Choose one of the following:	
ED PSY 6590	School Psychology Practicum I (p. 338)
ED PSY 6990	Internship (p. 338)
ED REM 6990	Internship (p. 338)
EDUC 6998	Thesis Research (p. 338)
Total Hours	33

1 Electives may include up to six hours of 6000-level courses from other Disciplines.

## Emphasis in Character and Citizenship Education

<b>Foundations</b>	
Educational Foundations	3
ED PSY 6111	Psychology Of Education (p. 338)
Learning and Cognition	3
ED PSY 6310	Psychology Of Learning Processes (p. 338)
Human Development	3
Choose one of the following:	
ED PSY 6210	Life-Span: Individual and Family Development (p. 338)
ED PSY 6215	Psychology Of Early Childhood Development (p. 338)
ED PSY 6220	Psychology Of The Elementary School Child (p. 338)
ED PSY 6225	The Psychology Of Adolescence (p. 338)
Research Methods	6
ED REM 6735	Statistical Analysis For Education Research (p. 338)
ED REM 6750	Advanced Research Design In Education (p. 338)
<b>Electives</b>	
Required	6
ED PSY 6217	Foundations Of Citizenship Education (p. 338)

ED PSY 6445 Character Education And Development (p. 338)		ED REM 6730 (p. Educational Program Evaluation 338)	3
Choose one of the following:	3	Choose three of the following:	9
ED PSY 6217 Foundations Of Citizenship Education (p. 338)		ED REM 6707 Classroom Measurement And Evaluation (p. 338)	
ED PSY 6445 Character Education And Development (p. 338)		ED REM 6709 Educational And Psychological Measurement (p. 338)	
Choose two of the following:	6	ED REM 6714 Action Research In Education (p. 338)	
ED PSY 6115 Personality And Social Development (p. 338)		ED REM 6716 Academic Assessment and Intervention (p. 338)	
ED PSY 6218 Coaching Sports For Character (p. 338)		ED REM 6732 Advanced Theory And Practice In Educational (p. 338) Program Evaluation	
ED PSY 6417 Current Perspectives On Citizenship Education (p. 338)		Capstone Experience	
ED PSY 6440 Moral Development And Education (p. 338)		Choose one of the following:	
ED PSY 6450 Advanced Methods In Character Education (p. 338)		ED REM 6990 Internship (p. 338)	
<b>Capstone Experience</b>	3	EDUC 6998 (p. 338)	
Choose one of the following:		Total Hours	33
ED PSY 6990 Internship (p. 338)			
ED REM 6990 Internship (p. 338)			
EDUC 6998 Thesis Research (p. 338)			
Total Hours	33		

## Emphasis in Educational Research and Program Evaluation

### Foundations

#### Educational Foundations 3

ED PSY 6111 Psychology Of Education (p. 338)

#### Learning and Cognition

ED PSY 6310 (p. Psychology Of Learning Processes 338) 3

#### Human Development 3

ED PSY 6210 Life-Span: Individual and Family Development (p. 338)

ED PSY 6215 Psychology Of Early Childhood Development (p. 338)

ED PSY 6220 Psychology Of The Elementary School Child (p. 338)

ED PSY 6225 The Psychology Of Adolescence (p. 338)

#### Research Methods 6

ED REM 6735 Statistical Analysis For Education Research (p. 338)

ED REM 6750 Advanced Research Design In Education (p. 338)

### Electives

#### Required 6

ED REM 6712 Survey Research Methods in Education <sup>1</sup>

ED REM 6730 (p. Educational Program Evaluation 338)	3
Choose three of the following:	9
ED REM 6707 Classroom Measurement And Evaluation (p. 338)	
ED REM 6709 Educational And Psychological Measurement (p. 338)	
ED REM 6714 Action Research In Education (p. 338)	
ED REM 6716 Academic Assessment and Intervention (p. 338)	
ED REM 6732 Advanced Theory And Practice In Educational (p. 338) Program Evaluation	
Capstone Experience	
Choose one of the following:	
ED REM 6990 Internship (p. 338)	
EDUC 6998 (p. 338)	
Total Hours	33

## Educational Specialist in School Psychology

The Educational Specialist in School Psychology (Ed.S.) degree program at the University of Missouri-St. Louis is a National Association of School Psychologists- approved training program that prepares future school psychologists as data-based problem solvers. Particular attention throughout the program is placed upon interventions and educational outcomes within a cognitive-behavioral theoretical perspective. The UMSL School Psychology Program promotes a unique set of professional values through its emphasis on:

- Data-based decision making
- Educational and psychological treatment outcomes
- Multicultural diversity
- Program development and evaluation
- Facilitation of organization change

The UMSL Ed.S. in School Psychology degree is designed to prepare future school psychologists practitioners to work in school settings. Graduates of the program are immediately eligible for School Psychologist Certification from the Missouri Department of Elementary and Secondary Education and the Nationally Certified School Psychologist credential from the National Association of School Psychologists.

## Learning Outcomes

The following outcomes guide the training and preparation of our Ed.S. in School Psychology degree candidates.

### Data-Based Decision Making

Ed S. candidates will acquire knowledge of a variety of assessment models and methods that enable them to develop expertise in collecting, analyzing, and interpreting data for the purpose of making recommendations to improve the academic performance and/or social-emotional development of children and adolescents with whom they work.

## Improved Educational and Psychological Treatment Outcomes

Ed S. candidates will gain knowledge of and develop skills associated with a wide-range of research-based academic, behavior, and psychological interventions treatments to promote academic performance and social-emotional behavior.

## Multicultural Diversity

Ed S. candidates will acquire knowledge of identity development that facilitates the development of skills to work with a students and families from diverse groups, thereby engaging in culturally-competent practice.

## Program Development and Evaluation

Ed. S. a variety of data collection and research methodologies that enable them to develop, implement, and evaluate school-based interventions and programs for children and adolescents. Candidates will gain knowledge and skills of

## Facilitation of Organizational Change

Ed S. candidates will acquire an understanding of the complexity of educational systems and the role school psychologists can play to promote systemic changes and improve services for children and adolescents.

The Ed. S. in School Psychology degree program consists of 60 hours of graduate coursework that includes coursework in psychological and educational foundations, psychoeducational assessment, and direct and indirect service delivery. Prevention and early intervention of academic, behavioral, and social-emotional problems through consultation, interdisciplinary collaboration, and systems-level interventions are highlighted throughout the program. The Ed.S. degree is a small cohort program that utilizes close relationships with faculty and field-based practitioners to develop professional skills.

Admission requirements include a 3.0 undergraduate GPA, current GRE scores Verbal, Quantitative and Analytical Writing scores at or above the 50th percentile, three letters of recommendation, a personal statement describing personal goals (not to exceed three single-spaced typed pages) and vita detailing relevant experience with children, adolescents, and families. Prerequisite coursework in the areas of Developmental Psychology, and Psychological Statistics is required for admission. Following initial screening, finalists will be invited for an on-campus interview with the School Psychology Program faculty and current Ed. S. candidates. All required application materials will be considered equally when making admission decisions. Applications are reviewed annually with a February 15 deadline.

Transfer credit may be granted for graduate coursework completed prior to entering the program, but strict limitations apply. The Ed.S. in School Psychology degree program involves a minimum of three years of intensive study. Although it is possible to complete the first year of the curriculum on a part-time basis, please note that practicum during the second year involves two days per week working in a school with a school psychologist, and internship is a yearlong fulltime supervised experience. Consequently, fulltime study is recommended and preferred.

## Educational Specialist in School Psychology (Ed..S.)

### Curriculum

First Year			
Fall	HourSpring	HourSummer	Hours
ED PSY 6530 (p. 338)	3 ED PSY 6310 (p. 338)	3 ED PSY 6210 (p. 338)	3
ED PSY 6532 (p. 338)	3 ED PSY 6550 (p. 338)	3 SPEC ED 6325 (p. 338)	3
ED PSY 6545 (p. 338)	3 ED REM 6718 (p. 338)	3	
ED REM 6750 (p. 338)	3 ED REM 7771 (p. 338)	3	
	<b>12</b>	<b>12</b>	<b>6</b>
Second Year			
Fall	HourSpring	Hours	
ED PSY 6536 (p. 338)	3 CNS ED 6030 (p. 338)	3	
ED PSY 6540 (p. 338)	3 ED PSY 6542 (p. 338)	3	
ED PSY 6590 (p. 338)	3 ED PSY 6591 (p. 338)	3	
ED REM 6719 (p. 338)	3 ED REM 6730 (p. 338)	3	
	<b>12</b>	<b>12</b>	
Third Year			
Fall	HourSpring	Hours	
ED PSY 6598 (p. 338)	3 ED PSY 6599 (p. 338)	3	
	<b>3</b>	<b>3</b>	

Total Hours: 60

In addition to completion of the 60-hour curriculum listed above, candidates for the Ed.S. in School Psychology degree must receive passing scores on the following programmatic assessments: Praxis II School Psychologist Examination, Problem-Solving Case Study, and Comprehensive Examination.

## Graduate Certificate in Program Evaluation in Education

The graduate Certificate in Program Evaluation in Education provides specialized study in the theory and practice of program evaluation. The program will build on the content area knowledge base of the individual's bachelors and masters degree. The focus of the Program Evaluation in Education certificate will be on the skills delineated in the standards and guidelines of the American Evaluation Association and the Joint Committee on Standards in Educational Evaluation. The certificate will consist of 18 hours of core courses and internship experiences. Graduate credits earned in equivalent courses in Education or related Social Science disciplines may meet some of these requirements.

### Research Methods

ED REM 6750 (p. Advanced Research Design In Education 338)	3
ED REM 7771 (p. Quantitative Research Methods I 338)	3
ED REM 7781 (p. Qualitative Methods In Educational Research I 338)	3

### Program Evaluation

ED REM 6730 (p. Educational Program Evaluation 338)	3
ED REM 6732 (p. Advanced Theory And Practice In Educational 338) Program Evaluation	3

ED REM 6990 (p. Internship  
338)

1-10

**ED PSY 6215 Psychology Of Early Childhood Development: 3 semester hours**

Total Hours

16-25

Prerequisites: ED PSY 6111 or consent of instructor. A survey of the theories, concepts and research which inform the field of early childhood development and help caregivers and teachers understand the cognitive, social, and emotional changes that take place from birth through the primary years of schooling.

Graduate Certificate programs are a minimum of 18 credit hours.

## Educational Psychology Courses

### **ED PSY 2212 Introduction To Learners And Learning: 3 semester hours**

Prerequisite: PSYCH 1003. This course examines, discusses and applies theories on infant, child, and adolescent development; examines student growth in various domains, including cognitive, linguistic, physical, and socio-emotional; and analyzes how different cultural contexts affect learning. Through readings, in-class activities, and field assignments outside of class time, students will consider how to apply these theories to create appropriate learning environments.

### **ED PSY 3312 Psychology of Learning, Instruction, and Assessment: 3 semester hours**

Prerequisites: TCH ED 2209, ED PSY 2212 or equivalents and admission to Teacher Education program. Application of educational psychology theories and research to learning, instruction, and assessment. Candidates will gain experience working with individuals and groups in settings that will provide the opportunity to design and evaluate instruction and assessment. Field assignments outside of class hours required.

### **ED PSY 6030 Instruction, Learning And Assessment: 3 semester hours**

Prerequisite: Admission to Graduate School. Reviews cognitive theories and research to examine how teachers can improve the design of classroom instruction, including the development of units, lesson plans, and assessment strategies. Students will critically evaluate current educational practices, design appropriate assessments based on instructional goals, and assess their own professional development as teachers.

### **ED PSY 6109 Learning And Development In Secondary School Settings: 4 semester hours**

Prerequisites: Graduate standing and admission to the secondary teacher education program. Investigation of teaching and learning theories and research on the developmental needs of pre-adolescent and adolescent students. Issues of cognition, moral and social development, motivation, and assessment will be analyzed and debated. Emphasis will be on theoretical and practical approaches to constructing and analyzing a learning system. Includes field experiences.

### **ED PSY 6111 Psychology Of Education: 3 semester hours**

Current psychological theories and research that guide inquiry and decision making in education. Topics surveyed include behavior, development, learning, instruction.

### **ED PSY 6113 Psychopathology And Diagnosis: 3 semester hours**

Same as CNS ED 6070. Prerequisites: Graduate Standing. Covers etiology, assessment and diagnosis of mental disorders using contemporary diagnostic systems. Course materials and assignments address the dynamics of adjustment and treatment implications for counselors, school psychologists, and others in the helping professions.

### **ED PSY 6210 Life-Span: Individual and Family Development: 3 semester hours**

Prerequisites: Graduate Standing Critical analyses of theories of human development including readings from empirical research and cross-cultural comparisons focusing on strategies to enhance developmental outcomes through relationship and environmental opportunity.

### **ED PSY 6217 Foundations Of Citizenship Education: 3 semester hours**

Prerequisites: Graduate Standing Introduction to citizenship education providing a range of knowledge of civic participation, concepts of democracy, the democratic purposes of education, and the developmental of civic identity and political thinking, attitudes, and engagement. Comparison of historical and contemporary approaches to democratic citizenship education in the United States.

### **ED PSY 6225 The Psychology Of Adolescence: 3 semester hours**

Prerequisites: ED PSY 6111 or consent of instructor. Current research on the psychological changes which occur during adolescence. Attention is paid to the family, school, peer groups, and contemporary settings that practitioners must understand to help young people meet the psychosocial challenges of adolescence.

### **ED PSY 6310 Psychology Of Learning Processes: 3 semester hours**

Prerequisites: ED PSY 6111, Psychology of Education. Advanced study of learning and instructional theories. The historical and theoretical bases of instructional practice are examined.

### **ED PSY 6404 Seminar: 1-10 semester hours**

### **ED PSY 6417 Current Perspectives On Citizenship Education: 3 semester hours**

Prerequisite: ED PSY 6217 Seminar extends students' understanding of theory and research in citizenship education by applying it to practical programs in the US and abroad. Analysis of assumptions underlying methods of citizenship education and its goals. Exploration of research on methods that promote, facilitate, or inhibit civic participation and citizenship competence.

### **ED PSY 6444 Cognition And Technology: 3 semester hours**

Same as ED TECH 6444. Prerequisites: ED PSY 6111 or consent of instructor. Examines cognitive theories and computer-based tools for learning. Students will gain a critical understanding of the relationship between the design of technological tools, the use of those tools in educational settings, and their implications for learning.

### **ED PSY 6445 Character Education And Development: 3 semester hours**

Prerequisites: ED PSY 6111 and ED PSY 6220 or ED PSY 6225 Critical survey of theories of character development and models for character education in childhood and adolescence. Includes empirical and conceptual study of the nature of moral character how it develops, and how it can be fostered in schools.

### **ED PSY 6448 Technology-Supported Inquiry Learning: 3 semester hours**

Same as ED TECH 6448. Prerequisites: ED TECH 5340 and ED PSY 6310 or consent of Instructor. Educational technology such as networked computers and software can play a supportive role in inquiry-based learning. Students will explore the theoretical background, design issues, pragmatic realities of technology-supported inquiry learning environments. Such learning environments are best understood as systems involving social, cultural, material and psychological aspects. Consideration will be given to the important properties of settings, activities and technologies, as well as to the role of instructors.



**ED PSY 6450 Advanced Methods In Character Education: 3 semester hours**

Prerequisites: ED PSY 6445 Advanced exploration of methods for promoting character development in schools: class meetings, democratic processes, cross-age learning and character curriculum development. Methods will be critically examined for their empirical and theoretical justifications.

**ED PSY 6497 Problems: 1-10 semester hours****ED PSY 6530 Foundations Of School Psychology: 3 semester hours**

Prerequisites: Admission to the School Psychology Program or consent of instructor. Examines the professional roles, responsibilities, and functions of psychologists in schools. Focuses on educational foundations of school psychology including the history of the profession, organization and operation of schools, and emergent technologies.

**ED PSY 6532 Psychoeducational Differences: 3 semester hours**

Prerequisites: Graduate Standing Examination of classification systems used with children and adolescents in the diagnosis and treatment of educational and physical disabilities, mental disorders, and other developmental challenges.

**ED PSY 6536 Biological Bases Of Behavior: 3 semester hours**

Prerequisites: Graduate Standing Examination of biological factors affecting human behavior. Includes an overview of neuroscience, developmental psychophysiology, and basic psychopharmacology. Implications for psychological and educational interventions are considered.

**ED PSY 6540 Psychoeducational Interventions: 3 semester hours**

Prerequisites: Grades of B or better in ED REM 6718 or consent of instructor. Examines academic and instructional interventions, both preventive and remedial, that are delivered in schools and related settings with children and adolescents. Emphasizes linking assessment and intervention via use of direct and indirect service delivery.

**ED PSY 6542 Social-Emotional and Behavior Interventions: 3 semester hours**

Prerequisites: Grade of B or better in SPEC ED 6325 or consent of instructor. Provides instruction and practice in the use of the problem-solving model to address common social-emotional and behavior problems found in schools. Special emphasis is given to research-based, early intervention and targeted intervention techniques that improve student behavior. Concurrent placement in a school or related setting is necessary to complete course assignments.

**ED PSY 6545 Consultation In Schools And Related Settings: 3 semester hours**

Prerequisites: Admission to the School Psychology or Special Education Program, or consent of instructor. Examines the theories, research, and legal/ethical issues related to consultation in schools and related settings. Emphasis on understanding the process of consultation using a problem-solving approach. Includes instruction in interviewing, observation, and development and evaluation of interventions.

**ED PSY 6550 Professional Issues In School Psychology: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6530 or consent of instructor. Advanced examination of professional issues facing school psychologists including legal and ethical considerations, standards of practice, models of service delivery, and emergent technologies.

**ED PSY 6590 School Psychology Practicum I: 3 semester hours**

Prerequisites: Grades of B or better in ED PSY 6550 and ED REM 6718. Introductory supervised experience in psychoeducational assessment and interventions for academic and behavior problems in schools and related settings. Settings and responsibilities determined in consultation with program faculty and site supervisor.

**ED PSY 6591 School Psychology Practicum II: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6590. Advanced supervised experience in consultation, problem solving, psychoeducational assessment and interventions for academic and behavior problems in schools and related settings. Settings and responsibilities determined in consultation with program faculty and site supervisor.

**ED PSY 6598 School Psychology Internship I: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6591. Supervised field-based placement in an approved school or educational setting under the supervision of an appropriately credentialed school psychologist. Course is eligible for graduate equivalency credit.

**ED PSY 6599 School Psychology Internship II: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6598. Advanced supervised field-based placement in an approved school or educational setting under the supervision of an appropriately credentialed school psychologist. Course is eligible for graduate equivalency credit.

**ED PSY 6990 Internship: 1-10 semester hours**

Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**ED PSY 7210 Theories of Development and the Life Course: 3 semester hours**

Prerequisites: Doctoral standing and at least one course in human development (e.g., ED PSY 6210 or ED PSY 6225), or consent of instructor. This advanced course examines the historical, ecological, cultural, and individual factors that shape developmental and educational experiences. Diverse families and their trajectories will be highlighted to demonstrate the intersecting spheres that shape human development. Students will critique research from multiple disciplines, analyze policy issues, and design a study to deepen their understanding of traditional and current theories on the life course.

**ED PSY 7640 Changing Perspectives In Educational Psychology: 3 semester hours**

Prerequisites: Doctoral Student Standing or consent of instructor The advanced exploration of foundational issues in educational psychology. Topics include theoretical perspectives on modes of analysis used in the investigation of psychological theories and concepts in education.

**ED PSY 7647 Teaching For Learning In The University: 3 semester hours**

Prerequisites: Graduate standing and consent of instructor An examination of current research in learning, instruction, motivation, and assessment as it pertains to teaching and learning in post-secondary settings. Designed to guide graduate students to promote active and meaningful learning in college classrooms to develop college students' critical thinking skills. Graduate students across the disciplines may enroll.

## Educational Research And Evaluation Method Courses

### ***ED REM 3721 Psychoeducational Assessment and Evaluation: 3 semester hours***

Review of measurement concepts and use of psychoeducational assessment data gathered via interview, observation, norm-referenced, and curriculum-based assessment methods. Special emphasis on progress monitoring and data-based decision making.

### ***ED REM 6040 Educational Research for Teachers: 3 semester hours***

Prerequisites: TCH ED 6010 and TCH ED 6020. This course provides the basic knowledge and skills needed by educators to understand and engage in educational research. Educators will learn and use both analytic and practical tools for studying teaching, learning, and assessment in educational contexts, including their own classroom.

### ***ED REM 6497 Problems: 1-10 semester hours***

Prerequisite: At least one previous ED REM course and consent of course supervisor. Individual study on topics pertaining to educational measurement, evaluation, statistics and research design.

### ***ED REM 6707 Classroom Measurement And Evaluation: 3 semester hours***

Prerequisites: Graduate admission or consent of instructor An introductory graduate course to classroom testing and evaluation. Topic areas include comparison of criterion-and normreferenced theory and technique; classical test theory, reliability, validity, and associated descriptive statistics; derived and transformed scores; preparation of instructional objectives for use in developing the classroom test, performance evaluations, and portfolio rubrics; use of evaluation to assess student achievement and instructional effectiveness.

### ***ED REM 6709 Educational And Psychological Measurement: 3 semester hours***

Prerequisites: Graduate admission or consent of instructor An introductory graduate course in testing and measurement theory: reliability, validity, and associated descriptive statistics; correlation and simple regression; derived and transformed scores; interpretation of test scores; measurement of aptitude, vocational interests, and personal-social adjustment.

### ***ED REM 6710 Educational Research Methods and Design: 3 semester hours***

Prerequisites: An introductory statistics course or ED REM 6707 or ED REM 6709 or consent of instructor An introductory course in educational research methodology: comparison of various types of qualitative and quantitative educational research, threats to internal/external validity, sampling methods, data analyses, and components of research reports.

### ***ED REM 6714 Action Research In Education: 3 semester hours***

Prerequisites: ED REM 6710 or consent of instructor A course that engages the participants in systematic qualitative inquiry into their own practice: framing appropriate questions; gathering and interpreting data; analyzing culture, subjectivity and multiple perspectives; and reporting the results ("telling the story"). Readings will address the methods, politics, and ethics of action research. Enrollment requires access to a field setting.

### ***ED REM 6716 Academic Assessment and Intervention: 3 semester hours***

Prerequisites: Graduate Standing. Provides instruction in measurement concepts, interpretation of cognitive ability tests, and use of norm-referenced and curriculum-based assessment techniques in developing academic interventions. Special attention is given to data-based decision making and the links among instruction, assessment, and intervention.

### ***ED REM 6718 Psychoeducational Assessment And Intervention: 3 semester hours***

Prerequisites: Grade of B or better in ED PSY 6530 or CNS ED 6050, or consent of instructor. Reviews measurement concepts and covers administration, scoring, interpretation, and reporting of individually administered tests of academic and cognitive abilities. Special attention is given to the link between assessment and intervention.

### ***ED REM 6719 Advanced Psychoeducational Assessment and Intervention: 3 semester hours***

Prerequisites: Grade of B or better in ED REM 6718 or consent of instructor. Instruction is provided in advanced and specialized assessment, diagnostic, and intervention techniques for individuals with intellectual disabilities, emotional or behavior disorders, and other low incidence disabilities experienced by children and youth.

### ***ED REM 6730 Educational Program Evaluation: 3 semester hours***

Prerequisites: ED REM 6750 or consent of instructor. A course on the principles and procedures for assessing the quality and effectiveness of programs, projects, and materials related to planned interventions and system changes in educational settings.

### ***ED REM 6732 Advanced Theory And Practice In Educational Program Evaluation: 3 semester hours***

Prerequisites: ED REM 6730, or consent of the instructor Extension of the principles, attributes, and practice of program evaluation to contemporary problems and settings. Study will include the comparison of examples of the program evaluation process. Focus will be on adherence to the Program Evaluation Standards endorsed by leading professional research and evaluation associations.

### ***ED REM 6735 Statistical Analysis For Education Research: 3 semester hours***

Prerequisites: Graduate Standing Provides students with a fundamental intermediate understanding of quantitative methods and their relationship to social science research in education. This course is designed to provide statistical background to students who will pursue advanced degrees in education. Students will conduct lab data analysis based on the topics covered in the class and learn how to generate specific research questions and conduct basic statistical analysis.

### ***ED REM 6750 Advanced Research Design In Education: 3 semester hours***

Prerequisites: ED REM 6735 or consent of instructor. Course is designed to provide students with a thorough background in the fundamental principles of research design in education, and the knowledge and skills necessary to design and carry out studies appropriate to a wide variety of research problems. It focuses on tailoring the research design and methodology to most effectively address the problem or issue of concern, including qualitative, quantitative, and mixed-method designs. This is an experiential course designed around active discussion by students each week, and requires each student to develop a detailed research proposal for conducting a study to examine an appropriate educational research problem.

### ***ED REM 6990 Internship: 1-10 semester hours***

Prerequisite: consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**ED REM 7711 Advanced Test Theory In Education: 3 semester hours**

Prerequisites: ED REM 6750. An advanced course in measurement theory and practice: issues of reliability, validity, and item analysis for both criterion and norm referenced tests; introduction to factor analysis in the development and analysis of test structure and validity; introduction to item response theory for the improvement of educational testing and research.

**ED REM 7712 Discourse Analysis In Education: 3 semester hours**

Prerequisites: Graduate Standing. The role of language in social life is of paramount concern to educational researchers. The purpose of this course is to introduce students to theories and methods of discourse analysis. Students will become familiar with the methods used in conversation analysis, critical discourse analysis and mediated or multimodal discourse analysis. Topics include transcription theory and practice, the role of context in discourse analysis, the ethics of representation and the place of action in discourse analysis. Students will engage with the theories and methods for analyzing educational interactions such as small-group discussions, education documents, classroom scenes, in-depth interviews, and naturally occurring conversations.

**ED REM 7740 Historical Research Methods in Education: 3 semester hours**

Prerequisites: Doctoral Standing. Survey of the methodology of historical research in education and historical writing about educational issues. Specific topics will include the historiography of education; working with primary and secondary documents; oral history as method and documentation; quantitative approaches to history; constructing historical narratives; and the question of interpretation.

**ED REM 7771 Quantitative Research Methods I: 3 semester hours**

Prerequisites: ED REM 6735. A second course in advanced Educational research methods sequence, with focus on multiple regression analysis and its applications to educational and psychological research.

**ED REM 7772 Quantitative Research Methods II: 3 semester hours**

Prerequisites: ED REM 7771 or consent of instructor An advanced educational research methods course: multivariate analysis of variance, canonical correlation, discriminant function analysis, factor analysis, cluster analysis, advanced topics in multiple linear regression; and associated research design issues.

**ED REM 7773 Quantitative Research Methods III: 3 semester hours**

Prerequisites: ED REM 7772 An advanced educational research methods course using multiple linear regression models, path analysis, and structural equation modeling. Focus is on the theory, issues and application of these advanced data analysis techniques.

**ED REM 7781 Qualitative Methods In Educational Research I: 3 semester hours**

Prerequisites: ED REM 6750 or consent of instructor. An introductory qualitative research methods course in education to develop skill in forming research questions, writing field notes, and collecting, organizing, and analyzing a variety of data. The design issues of triangulation subjectivity, and trustworthiness are explored. Ethics and ethical issues in qualitative research are presented.

**ED REM 7782 Qualitative Methods In Educational Research II: 3 semester hours**

Prerequisites: ED REM 7781 or consent of instructor An advanced qualitative educational research methods course to address the issues of sampling strategies, observational and interview techniques, questionnaire construction, and data analysis. Requires access to a field setting to conduct a qualitative research study.

# College of Fine Arts & Communication

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## General Information

The College of Fine Arts and Communication at the University of Missouri-St. Louis offers undergraduate degree programs in Art, Art History, Communication, Media Studies, Music, and Theatre & Dance. Graduate study degree programs, administered through the Graduate School, are also offered in the Departments of Communication and Music.

The faculty and alumni of this college have distinguished themselves as scholars, visual artists, teachers, and performers. Students of the college pursue their activities in a variety of campus locations, including the Fine Arts Building, Lucas Hall, the Music Building and the Arts Administration Building. The Touhill Performing Arts Center affords two world-class venues for performances by university students and faculty, campus ensembles, and visiting artists. In addition, Gallery 210 and Gallery FAB offer visual arts programming of regional, national and international importance. Gallery VISIO in the Millennium Student Center showcases work by students and faculty.

The College of Fine Arts and Communication consists of some 50 full-time faculty members and is distinguished by its collaboration with the community. Six endowed professorships link the University to the Saint Louis Symphony, the Saint Louis Art Museum, Opera Theatre of Saint Louis, Laumeier Sculpture Park, and other local cultural institutions. The Des Lee Fine Arts Education Collaborative connects the University and a variety of partner cultural institutions to local school districts.

All the departments of the College of Fine Arts and Communication offer coursework in the evening or in other non-traditional modes (i.e. on-line and/or video). The Department of Communication offers sufficient coursework to complete its degree program in the evening. Consult the website of the department in which you are interested for details on degree requirements and a 3-year schedule of planned course offerings.

## Requirements for Undergraduate Study

All majors in the College of Fine Arts and Communication must meet the following requirements:

- Requirements of their chosen baccalaureate degree (i.e., B.A., B.F.A., B.M., etc.) in accordance with the policies of the College of Fine Arts and Communication, explained below.
- Requirements of the department for their selected major or interdisciplinary program.
- Requirements for the University's general education & university requirements.
- Completion of INTDSC 1003 (<https://nextbulletin.umsl.edu/collegeoffineartsandcommunication>) Code University Studies for all students admitted to UMSL with fewer than 24 academic credit hours.

## Cultural Diversity Requirement

To expand cultural awareness, students in some academic units may be required to complete a course that emphasizes Asian, African, Middle Eastern, Latin American, Pacific aboriginal, Native American, or a comparable culture. Courses that satisfy this requirement involve substantial material independent of the cultures' interactions with European cultures. If a course focuses on one facet of a culture, it must

treat the topic within the context of the culture as a whole. These courses are coded with the initials [CD] for Cultural Diversity. A list of courses which fulfill the Cultural Diversity requirement may be found in the introductory section of this Bulletin.

## Academic Policies

### Grade Requirements

To graduate, all majors in the college must satisfy one of the following grade point options:

Earn 120 hours with a C grade or better, which constitutes a complete degree program. Neither a grade of C- nor a satisfactory grade may be counted.

Have a minimum UMSL grade point average of 2.0 and have met all other Grade Point restrictions that are required for the degree program and the major.

### Residency Requirements

Transfer students must complete at least 30 of the last 36 hours of their degree program in residence at the University of Missouri-St. Louis.

Unless otherwise specified, a transfer student must complete 12 hours of graded work at UMSL at the 2000 level or above within the minimum number of hours required for each major.

Unless otherwise specified, a transfer student must complete at least six hours of graded work at UMSL at the 2000 level or above within the minimum number of hours required for each minor. Students should consult the minor department for specific residency and grade requirements.

## Specific Baccalaureate Degree Requirements

### Course Requirements

After fulfilling the general education and specific major degree requirements, students are to take the remaining hours required to complete the bachelor's degree from courses from one or more of the following areas at UMSL or university-quality equivalents at other institutions: anthropology/archaeology, art (appreciation, history, studio), astronomy, biology, chemistry, communication, criminology and criminal justice, economics, English, foreign languages/literatures, geology, history, mathematics/computer science, media studies, music (appreciation, history, performance), philosophy, physics, political science, psychology, social work, sociology, theatre and dance, business, education, engineering, or interdisciplinary. Other areas or courses not listed require approval by the chair of the student's department.

### Bachelor of Arts (B.A.)

The College offers the B.A. degree in art history, communication, music, and theatre and dance. All B.A. degree candidates must successfully complete a curriculum that includes a departmental major or an approved interdisciplinary field. A major must include at least 30 credit hours but no more than 45 hours.



## Foreign Language Requirement

Candidates for the B.A. degree are required to complete 13 credit hours or the equivalent in proficiency in one foreign language. Foreign language guidelines are as follows:

1. Students entering with no high school language units must enroll in Language 1001 or may enroll in the 2115 series (see no. 4).
2. Students with the degree of proficiency equivalent to 13 hours of college-level work in French, German or Spanish may obtain exemption by passing the department's placement exam. The specific dates for the exam are posted on-line (<http://www.umsl.edu/divisions/artscience/forlanglit/Academics/lang%20req%20and%20placement%20testing.html>) or may be obtained from Languages and Cultures in the Department of Anthropology, Sociology, and Languages (<http://www.umsl.edu/divisions/artscience/forlanglit>) at 314-516-6240.
3. Native speakers of language other than English may meet the foreign language requirement by presenting a transcript from a university or secondary school of their native country. The department will certify native speakers of those languages which are taught at the university. Those who are proficient in other languages must submit certification of competence to the college.
4. Language 2115 A, B, C (Intensive) will satisfy the foreign language requirement. Aptitude testing is required prior to enrollment. For more information, call Languages and Cultures at 314-516-6240
5. Students may not repeat, for either credit or quality points, an elementary course if they have already completed a higher-level course for which the elementary course, or its equivalent, is a prerequisite.

## Bachelor of Fine Arts (B.F.A.)

The College offers the B.F.A. degree in studio art. A foreign language is not required. Students choosing an emphasis in drawing, graphic design, painting, photography, printmaking or general fine arts must take at least 75 credit hours in studio art (including 30 hours in the foundation art program). Students seeking K-12 art teacher certification take a minimum of 50 credit hours in studio art (including 30 hours in the foundation art program) and must fulfill the General Education Requirements in both the College of Education and the College of Fine Arts and Communication.

## Bachelor of Music (B.M.)

The College offers the B.M. degree in music education, performance and with elective studies in business. The requirements are the same as for the B.A. degree with the addition of music education courses for music majors seeking state teacher certification. Although foreign language proficiency is not required, foreign language study is required for applied voice students.

## Applied Music and Studio Art

Students not majoring in music may count no more than eight hours in music-performing organizations (EN PER 1400 (p. 346), EN PER 1410 (p. 346), EN PER 1500 (p. 346), EN PER 1520 (p. 346), etc.) Students in the college majoring in music may count any number of hours of applied music (private lessons). Students not majoring in studio art may count any studio art course toward any degree in the college. This also includes transferred credit.

## Bachelor of Science (B.S.)

The College offers the B.S. degree in media studies. All majors must complete a minimum of 51 hours in Media Studies courses and at least 24 of these hours must be taken at UMSL. A minimum of 39 credit hours in Media Studies and a minimum of 12 credit hours in Theatre and Dance, totaling 51 credit hours, are required. At least 18 hours of coursework must be taken at the 2000 level or above at UMSL. There is no foreign language requirement, but foreign language proficiency is recommended.

## Bachelor of Liberal Studies (B.L.S.)

(See Interdisciplinary Programs (p. 169) for complete description).

## Certificate Programs

Undergraduate certificate programs are offered in Advertising, Photographic Studies, and Public Relations.

## Minors

A number of minors are available at UMSL. Some are offered by individual departments, while others, such as Classical Studies and Africana Studies, are interdisciplinary in nature and involve a number of departments. The requirements for the various minors are listed in either the departmental or interdisciplinary sections of this Bulletin.

## Art and Art History

**Campus Address:** Fine Arts (Studio Art/Art Education) - 201 Fine Arts Bldg.

**Website:** <http://www.umsl.edu/~art>

**Main Number:** 314-516-6967

**Fax Number:** 314-516-6103

## General Information

### Degrees and Areas of Concentration

The department offers course work leading toward the Bachelor of Arts in Art History and the Bachelor of Fine Arts in Studio Art.

Courses included in the B.A. in art history cover the arts of Asia, Africa, Europe, and North America, including Native American arts, from ancient times to the present. Courses examine the entire range of human visual expression from painting, sculpture, architecture, and photography to performance and festival arts. In each case the arts are examined within their historical, aesthetic, and cultural contexts.

The B.A. in Art History has the following learning outcomes:

- to write clearly and coherently about works of art and art historical literature;
- to possess the ability to conduct independent research on works of art and visual culture;
- to recognize and be able to apply different methodologies, recognizing that each incorporates a specific valuing system;
- to demonstrate understanding of the ethical issues surrounding cultural property;
- to analyze critically and interpret works of visual art and art historical texts;

- to demonstrate familiarity with and basic knowledge of diverse historical artworks.

The B.F.A. in studio art consists of a foundation art program and an emphasis area in the following: art education, drawing, graphic design, painting, photography, printmaking, and general fine arts. UMSL has a transfer agreement with the St. Louis Community College District, which offers a direct credit transfer to upper division BFA courses for students who graduate with an AFA degree from the SLCC.

The Bachelor of Fine Arts Degree in Studio Art, with emphasis in Art Education, Drawing, Graphic Design, Painting, Photography, Printmaking, and General Fine Arts, has the following learning outcomes:

- to develop visual and verbal responses to visual phenomena, and organize perceptions and conceptualizations both rationally and intuitively;
- to become familiar with the major achievements in the history of art and design, including the works and intentions of leading artists and designers in the past and present;
- to develop the capacity to identify and/or solve problems within a variety of physical, technological, social, and cultural contexts;
- to understand and evaluate contemporary thinking about art or design;
- to become familiar with and develop competence in a number of art or design techniques;
- to make valid assessments of quality and effectiveness in design projects and works of art, especially their own.

To support its teaching and research objectives, the department maintains a slide collection of over 110,000 slides and an expanding database of digital images. The collection, which includes examples of painting, sculpture, architecture, photography and decorative arts, is under the supervision of a professional visual resource curator, who is available for special assistance to staff and students.

## Gallery 210

Gallery 210, located in Building 7, 44 East Drive, offers visual arts programming of regional, national, and international importance. The gallery's exhibitions and related arts programming have enjoyed a long and distinguished history of service to the university and to the St. Louis community. Gallery activities are supervised by a professional gallery director.

## Gallery FAB

Located in the Fine Arts Building, Gallery FAB exhibits a range of work by artists of regional and national significance. The exhibitions are coordinated by members of the Studio Art Faculty and complement the teaching emphases of the Fine Arts program.

## Gallery Visio

Gallery Visio is located in room 170 Millennium Student Center. It showcases work by students and faculty, and hosts exhibitions that address cultural and contemporary issues.

## Scholarships/Internships

Several scholarships are available on a competitive basis within the department, including the Art Department/Barbara St Cyr Scholarship, the William T. Isbell Jr. Scholarship, the Aronson Scholarship, the Marie Larkin Scholarship in Art Education, and the Hilda and Roy Bergmann Scholarship for Art. The department also sponsors a variety of internships

with local arts institutions, including the Saint Louis Art Museum, Contemporary Art Museum St. Louis, and Laumeier Sculpture Park.

## Career Outlook

Study in art history broadens and enriches a general education, offering insight into the visual, architectural, and cultural artifacts left by earlier, as well as modern, civilizations. Art history graduates have found career opportunities in teaching, museums, galleries, libraries, historical societies, sales and auction houses, historic preservation, and arts administration.

Students with degrees in studio art find careers in teaching, advertising, public relations, graphic design, illustration, film and video production, arts administration, art restoration, product and industrial design, framing, and commercial photography.

With over 300 art teachers in the greater St. Louis region alone, there is a demand for art teachers statewide each year.

## Faculty Overview

The Department of Art and Art History has a diverse faculty actively engaged in the production of art, its historical and critical evaluation, and the training of art educators. The department prides itself on its commitments to high standards of teaching and sound research achievements. Individual faculty have been cited for their teaching excellence. Art history faculty members have written books, articles, and critical reviews, and regularly participate in national and international conferences. Studio art faculty exhibit nationally and internationally in group and solo juried and invited exhibitions.

## Undergraduate Studies

### General Education Requirements

Majors in art history must meet the college and university general education requirements (<http://bulletin.umsll.edu/generaleducationrequirements>). A foreign language is required; French or German is recommended. Art history courses required for the degree may not be taken on a satisfactory/ unsatisfactory (S/U) basis.

Art history courses can be applied toward minors in Anthropology, American Studies, Classical Studies, Philosophy, and Urban Studies, or certificates in Studies in Religions, Women's and Gender Studies, Photographic Studies and African Studies.

Majors in studio art must meet the college and university general education requirements. A foreign language is not required. Studio art courses required for the degree may not be taken on a satisfactory/ unsatisfactory (S/U) basis. A minimum of 120 hours is required for graduation. Studio art courses do not fulfill the humanities general education requirement.

## Degree Requirements

### Bachelor of Arts in Art History

Art history majors must complete a minimum of 36, but no more than 45, hours in art history with no grade below C.

#### Required Courses

ART HS 1100 (p. Introduction To Western Art 347)	3
ART HS 3395 (p. Sophomore/Junior Seminar:Research in Art History 347)	3

ART HS 4495 (p. 347) Senior Seminar: Methods of Art History 3

Select one non-Western art course from the following (may be taken concurrently with 1100): 3

ART HS 1103 Pre-Columbian Art and Architecture of Meso-and South America (p. 347)

ART HS 1104 Indigenous Arts Of North America (p. 347)

ART HS 1105 Introduction To The Arts Of Africa (p. 347)

ART HS 1108 Introduction To The Arts Of Asia (p. 347)

Select a minimum of three lower-division courses, one from each of the following categories: 9

#### Ancient and Medieval

ART HS 2211 Art And Archaeology Of The Ancient World (p. 347)

ART HS 2212 Greek Art And Archaeology (p. 347)

ART HS 2213 Roman Art & Archaeology (p. 347)

ART HS 2225 Medieval Art (p. 347)

#### Early Modern

ART HS 2235 Italian And Northern European Renaissance Art (p. 347)

ART HS 2238 Italian Renaissance Art (p. 347)

ART HS 2240 French Art And Architecture 1400-1715 (p. 347)

ART HS 2245 Baroque Art And Architecture (p. 347)

#### Modern and American

ART HS 2250 Nineteenth Century European Art (p. 347)

ART HS 2255 Modern Art (p. 347)

ART HS 2265 History Of Photography (p. 347)

ART HS 2270 American Art To 1876 (p. 347)

ART HS 2272 American Art Since 1876 (p. 347)

ART HS 2279 American Architecture (p. 347)

ART HS 2281 Art Since 1960 (p. 347)

Select a minimum of three upper division courses. One course must be a 4000-level Topics course. The other two courses must be chosen from two different categories in the following list: 9

#### Media in Art History

ART HS 3303 Media And Technique In Art History (p. 347)

ART HS 3350 Studies in Design (p. 347)

ART HS 3360 Photography And Society (p. 347)

ART HS 3385 Studies In Architectural History (p. 347)

#### Themes in Art History

ART HS 3365 The Artist And The City (p. 347)

ART HS 3374 Philosophy Of Art (p. 347)

ART HS 3376 Gender in the Visual Arts (p. 347)

ART HS 3391 Selected Themes In Art History (p. 347)

ART HS 3396 The Nude In Art (p. 347)

ART HS 3397 Landscape Perspectives In Art (p. 347)

ART HS 3398 The Portrait (p. 347)

#### Professional Studies

ART HS 3387 Professional Internship (p. 347)

ART HS 3388 St. Louis Art Museum Internship (p. 347)

ART HS 3389 Visual Resources Management (p. 347)

ART HS 3393

#### Topics in Art History

Courses listed as "Topics" at the 4000 level, including but not limited to:

ART HS 4411 Topics In Ancient Art And Archaeology (p. 347)

ART HS 4425 Topics In Medieval Art (p. 347)

ART HS 4435 Topics In Renaissance Art (p. 347)

ART HS 4445 Topics In 17Th And 18Th Century European Art (p. 347)

ART HS 4455 Topics In Modern Art (p. 347)

ART HS 4475 Topics In American Art (p. 347)

ART HS 4481 Topics In Contemporary Art (p. 347)

ART HS 4490 Special Study (p. 347)

Select one course in studio art.<sup>1</sup> 3

Additional hours in art history, up to the maximum of 45, may be completed with electives at the 2000 level or above. 3

Total Hours 36

<sup>1</sup> Up to nine hours in studio art may be applied toward the B.A. in art history.

## Bachelor of Fine Arts in Studio Art

Candidates for the B.F.A. degree must complete a Foundation Art Program (which is largely satisfied by the A.F.A. degree) and an emphasis area in one of the following: art education, drawing, graphic design, painting, photography, printmaking or general fine arts. Studio art majors are required to take 75 hours in studio art (this includes 30 hours in the foundation art program) and 15 hours in Art History. The final 30 hours must be completed in residence at UMSL. Graduating students must also pass a faculty portfolio review.

Advanced Placement in Studio Art Classes: Studio Art Majors who have professional Graphic Design or Photographic experience may wish to submit a portfolio to a committee of studio art faculty. Depending on the nature and the quality of the student's portfolio, they may be able to obtain exemptions from selected lower level studio art courses. Students applying for these exemptions must submit their portfolios prior to the first day of class of their first semester in the BFA Program. Students will be notified in writing if an exemption is granted. Students informed of these waivers will be advised of their requirements in the studio art major. All decisions of the portfolio reviews are final.

### Foundation Art Program

The following courses are required for the Foundation Art Program:

ST ART 1020	Expanded Artforms	3
ST ART 1140	Drawing I	3
ST ART 1141	Drawing II	3
ST ART 1142	Figure Drawing I	3
ST ART 1150	Design I	3
ST ART 1151	Design II	3
ST ART 2240	Drawing III <sup>1</sup>	3
or ST ART 1143	Figure Drawing II	
Select one of the following:		3
ST ART 1030	Ceramics I	
ST ART 1132	Sculpture I	
ST ART 2251	Design III	
Studio Art Electives		6
Total Hours		30

<sup>1</sup> Those planning an emphasis in drawing or painting must take ST ART 1143.

Students must complete 45 hours in one of the following emphasis areas:

#### Drawing

ST ART 2240	Drawing III	3
ST ART 2241	Drawing IV	3
ST ART 2242	Figure Drawing III	3
ST ART 2243	Figure Drawing IV	3
ST ART 2250	Composition	3
ST ART 3340	Advanced Problems In Drawing I	3
ST ART 3341	Advanced Problems In Drawing II	3
ST ART 4495	Senior Studio Seminar	3
ST ART 4496	Senior Studio Seminar	3
Painting or Printmaking Electives		6
Studio Art Electives		12

#### Graphic Design

ST ART 1210	Graphic Design I	3
ST ART 1220	Graphic Design II	3
ST ART 2210	Typography	3
ST ART 2212	Image Making for Graphic Design	3
ST ART 2220	Computer Design I	3
ST ART 2221	Computer Design II	3
ST ART 3310	Graphic Design III	3
ST ART 3311	Graphic Design IV	3
ST ART 3383	Advanced Problems In Graphic Design I	3
ST ART 3384	Advanced Problems In Graphic Design II	3
ST ART 4497	Senior Seminar In Graphic Design I	3
ST ART 4498	Senior Seminar In Graphic Design II	3
Graphic Design Electives		9

#### Painting

ST ART 1180	Painting I	3
ST ART 1181	Painting II	3
ST ART 2250	Composition	3
ST ART 2280	Painting III	3
ST ART 2281	Painting IV	3
ST ART 3380	Advanced Problems In Painting I	3
ST ART 3381	Advanced Problems In Painting II	3
ST ART 4495	Senior Studio Seminar	3
ST ART 4496	Senior Studio Seminar	3
Select two of the following:		6
ST ART 2240	Drawing III	
ST ART 2241	Drawing IV	
ST ART 2242	Figure Drawing III	
ST ART 2243	Figure Drawing IV	

Studio Art Electives 12

#### Photography

ST ART 1060	Photography I	3
ST ART 2160	Photography II	3
ST ART 2250	Composition	3
ST ART 2263	Digital Color Process	3
ST ART 2265	Commercial Applications In Photography: Portrait Photography	3
ST ART 2267	The Constructed Photograph	3
ST ART 3260	Photography III	3
ST ART 3391	Advanced Problems In Photography I	3
ST ART 3392	Advanced Problems In Photography II	3
ST ART 4490	Senior Seminar In Photography I	3
ST ART 4491	Senior Seminar In Photography II	3
Studio Art Electives		6
Photography Electives		6

#### Printmaking

ST ART 1170	Printmaking I	3
ST ART 2241	Drawing IV	3
ST ART 2243	Figure Drawing IV	3
ST ART 2250	Composition	3
ST ART 2271	Printmaking II	3
ST ART 2274	Printmaking And Relief	3
ST ART 3370	Advanced Problems In Printmaking I	3



ST ART 3371	Advanced Problems In Printmaking II	3
ST ART 4495	Senior Studio Seminar	3
ST ART 4496	Senior Studio Seminar	3
Select two of the following:		6
ST ART 1173	Printmaking: Screenprinting I	
ST ART 2272	Printmaking:Lithography I	
ST ART 2273	Printmaking: Etching	
ST ART 3372	Advanced Lithography	
Studio Art Electives. Include one course in photography		9
<b>General Fine Arts</b>		
Studio Art Electives. Must be taken at the 2000 level or above.		30
The following courses are required:		9
ST ART 2250	Composition	3
ST ART 4495	Senior Studio Seminar	3
ST ART 4496	Senior Studio Seminar	3
Select two of the following:		6
ST ART 3340	Advanced Problems In Drawing I	
ST ART 3341	Advanced Problems In Drawing II	
ST ART 3370	Advanced Problems In Printmaking I	
ST ART 3371	Advanced Problems In Printmaking II	
ST ART 3380	Advanced Problems In Painting I	
ST ART 3381	Advanced Problems In Painting II	
ST ART 3391	Advanced Problems In Photography I	
ST ART 3392	Advanced Problems In Photography II	

Students must complete 15 hours of Art History, with at least 9 hours taken in residence at UMSL.

Students choosing a double major in two studio art emphasis areas must complete all the requirements for each emphasis area. If the double major includes Graphic Design, students must take four semesters of Senior Studio Seminar. This includes:

ST ART 4490	Senior Seminar In Photography I	3
ST ART 4491	Senior Seminar In Photography II	3
ST ART 4495	Senior Studio Seminar	3
ST ART 4496	Senior Studio Seminar	3
ST ART 4497	Senior Seminar In Graphic Design I	3
ST ART 4498	Senior Seminar In Graphic Design II	3

## Art Education

An art education emphasis leading toward K-12 Art teacher certification is available. Students choosing this option must complete degree requirements for the B.F.A. Students must complete ENGL 3100 (Advanced Expository Writing) and the General Education Requirements (G.E.R.) of the College of Education as well as the College of Fine Arts and Communication. A foreign language is not required.

Students will take a specialized program of Foundation Art (30 hours) that includes courses required for certification to teach art. They will also take studio art electives, including a minimum of three courses in one of the studio emphasis areas: drawing, graphic design, painting, photography, or printmaking. A minimum of 50 credit hours must be completed in studio art. In addition, students must complete 15 hours of art history. The final 30 hours of coursework must be completed in residence at UMSL. Major area courses, including studio art, art history, art education, teacher education, and secondary education, must be completed with a minimum

grade point average of 2.5; no grade lower than a C is acceptable in major area coursework.

Beginning with those students graduating in May, 2017 and receiving teacher certification, the Missouri Department of Elementary and Secondary Education requires a 3.0 GPA in professional education courses, a 3.0 GPA in the teaching content field, and a 2.75 overall GPA.

## I. Foundation Art for Art Education

(10 courses; 30 hours if taken at UMSL):

ST ART 1030	Ceramics I	3
ST ART 1133	Introduction To Fibers And Textiles	3
ST ART 1140	Drawing I	3
ST ART 1141	Drawing II	3
ST ART 1142	Figure Drawing I	3
ST ART 2240	Drawing III	3
or ST ART 1143	Figure Drawing II	
ST ART 1150	Design I	3
ST ART 1151	Design II	3
ST ART 1170	Printmaking I	3
or ST ART 1173	Printmaking: Screenprinting I	
ST ART 1180	Painting I	3
Total Hours		30

## II. Studio Art for Art Education (7 courses; 21 hours if taken at UMSL):

ST ART 1020	Expanded Artforms	3
ST ART 1060	Photography I	3
or ST ART 1061	Introduction to Digital Photography	
or ST ART 1210	Graphic Design I	
or ST ART 2100	Advertising Art Fundamentals	
Students planning on a Photography emphasis must take ST ART 1060. Students planning on a Graphic Design emphasis must take ST ART 1210.		
ST ART 1132	Sculpture I	3
Studio Art Electives		3
Studio Art Emphasis		9
Students must complete at least nine hours in one of the following areas: drawing, graphic design, painting, photography, or printmaking.		
Total Hours		21

## III. Art History for Art Education (5 courses; 15 hours if taken at UMSL):

At least 9 hours must be taken in residence at UMSL.

ART HS 1100	Introduction To Western Art	3
Art History Electives		12
Total Hours		15

## IV. Professional Preparation for Art Education

Required art education, Level II and III teacher education, and secondary education courses must be taken in residence at UMSL. Students must be admitted to the Teacher Education program of the College of Education. Students should check with the Office of Advising and Student Services

(<http://coe.umsl.edu/w2/Advising%20-%20OASIS>) (OASIS) for the most complete and current admission information.

Art Education certification candidates must complete the following courses:

#### Level I: Exploring Education as a Profession

EDUC 1000	Building Community, Culture, and Learning in Education	3
TCH ED 2209	Foundations of Teaching in American Schools	3
ED PSY 2212	Introduction To Learners And Learning	3

#### Level II: Teaching and Learning Across Context and Clinical Experiences

ART ED 3328	Art Education: Theory to Practice	3
ART ED 4260	Art Museum as Teaching Resource	3
ED PSY 3312	Psychology of Learning, Instruction, and Assessment	3
ED TECH 3135	Technology for Educators	1
SPEC ED 3318	Inclusive Classrooms	3
TCH ED 3310	Methods of Teaching With Technology	2
TCH ED 4391	Literacy for Adolescent Learners in Content Areas	3

#### Level III: Instructional Application

ART ED 4273	Curriculum and Methods of Teaching Art	3
SEC ED 4989	Practicum I: Site Based Experience	3
SEC ED 4996	Practicum II: Site Based Experience in Elementary Art	6
SEC ED 4997	Practicum II: Site Based Experience in Secondary Art	6

Total Hours	45
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## Minors

### Minor in Art History

A minor in art history requires the completion of at least 18 hours in art history courses. Students must take ART HS 1100 (p. 347) and at least one course in non-Western art. They must also take at least 2 courses at the 3000 level or above. A maximum of 3 hours of internship can be applied toward a minor in art history. The GPA for the courses for the minor must be 2.0 or better. Nine of the 18 hours must be taken in residence at UMSL. All courses in the minor must receive a grade of C or above.

### Minor in Studio Art

Students who wish to minor in studio art must take a minimum of 18 hours with a grade point average of 2.0 or better. Six hours must be taken at the 2000 level or above, in residence at UMSL. The requirements for the minor are as follows:

ST ART 1140 (p. 347)	Drawing I	3
ST ART 1141 (p. 347)	Drawing II	3
ST ART 1150 (p. 347)	Design I	3

Select two consecutive courses in any single area from the following: <sup>1</sup> 6

Painting

Printmaking (any one subfield)

Photography	
Graphic Design	
Advanced Drawing	
Studio art elective	3
Total Hours	18

## Photographic Studies Certificate

UMSL students, graduates, and post-baccalaureate candidates may obtain a certificate in photographic studies by coordinating courses in and related to photography. To be eligible for the certificate, undergraduates must complete a degree in a chosen major field. A faculty member of the Interdisciplinary Photographic Studies Committee will act as adviser to all students and will consult with the faculty adviser in the student's major to plan appropriate credits.

## Requirements

The following courses are required:

ST ART 1060 (p. 347)	Photography I	3
ST ART 2160 (p. 347)	Photography II	3
ART HS 2265 (p. 347)	History Of Photography	3
ST ART 3260 (p. 347)	Photography III	3
ART HS 3360 (p. 347)	Photography And Society	3

Select one of the following: 3

ART HS 1100 (p. 347)	Introduction To Western Art	
ST ART 2262 (p. 347)	Color Photography I	
ST ART 2263 (p. 347)	Digital Color Process	
ST ART 2264 (p. 347)	Non-Silver Photography	
ST ART 3260 (p. 347)	Photography III	
ST ART 3263 (p. 347)	Digital Color Portfolio	
ST ART 3363 (p. 347)	Special Topics In Photography	
ST ART 3390 (p. 347)	Special Study	
ST ART 3391 (p. 347)	Advanced Problems In Photography I	
ST ART 3392 (p. 347)	Advanced Problems In Photography II	
COMM 1050 (p. 347)	Introduction To Mass Communication	
ENGL 3140/ MEDIA ST 3214 (p. 347)	News Writing	

ENGL 3150 (p. Feature Writing  
347)

Total Hours 18

## Sample Four Year Plans

Art History BA (p. 353)

Studio Art, BFA

- Drawing Emphasis (p. 353)
- Graphic Design Emphasis (p. 354)
- Painting Emphasis (p. 354)
- Photography Emphasis (p. 355)
- Printmaking (p. 355) Emphasis
- General Fine Arts Emphasis (p. 356)

## Art History BA

### First Year

Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 ART HS 1000 Level Non- Western Art	3
ART HS 1100 <sup>2</sup>	3 ST ART Elective	3
General Education <sup>3</sup>	6 Foreign Language 1002	5
Foreign Language 1001	5 General Education	3
	<b>15</b>	<b>14</b>

### Second Year

Fall	Hours Spring	Hours
ART HS Lower Division Ancient & Medieval Art	3 ART HS Lower Division Early Modern Art	3
Foreign Language 2101	3 ART HS Lower Division Modern & American Art	3
General Education	6 General Education	6
Elective or minor	3 Elective or minor	3
	<b>15</b>	<b>15</b>

### Third Year

Fall	Hours Spring	Hours
ART HS Upper Division Elective	3 ART HS Upper Division Elective-from a different area	3
Elective or minor	3 ART HS 3395	3
ENGL 3100	3 Elective or minor	6
ART HS 2000+ Level Elective	3 General Education	3
General Education	3	
	<b>15</b>	<b>15</b>

### Fourth Year

Fall	Hours Spring	Hours
ART HS 4495	3 Elective or minor	12
Elective or minor	13 ART HS 4000 Level Topics Course	3
	<b>16</b>	<b>15</b>

Total Hours: 120

- 1 INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.
- 2 This plan assumes that 15 required of the required Art History credit hours will satisfy the Humanities area of general education and help to fulfill the total of 42 general education hours. Student should see an academic advisor to ensure they are selecting the correct courses.
- 3 The general education courses listed assumes the U.S. History/ Government requirement is fulfilled with a Social/Behavioral Science or Humanities general education course.

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## Studio Art, Drawing Emphasis BFA

### First Year

Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 ST ART 1151	3
ST ART 1140	3 ST ART 1141	3
ST ART 1142	3 General Education	3
ART HS course <sup>2</sup>	3 ST ART elective	6
General Education <sup>3</sup>	3	
ST ART 1150	3	
	<b>16</b>	<b>15</b>

### Second Year

Fall	Hours Spring	Hours
ST ART 1143	3 ST ART 2241	3
ST ART 2240	3 ST ART 2242	3
ST ART 2250	3 ST ART elective	3
ART HS course	3 ART HS course	3
General Education	3 General Education	3
	<b>15</b>	<b>15</b>

### Third Year

Fall	Hours Spring	Hours
ST ART 2243	3 ST ART 3341	3
ST ART 1130, 1132, or 2251	3 ENGL 3100	3
ART HS course	3 Painting or printmaking elective	3
General Education	3 Studio Art elective	3
ST ART 3340	3 General Education	6
	<b>15</b>	<b>18</b>

Fourth Year		
Fall	Hours Spring	Hours
ST ART 4495	3 ST ART 4496	3
Studio Art elective	3 ST ART elective	6
Painting or printmaking elective	3 General Education	6
ART HS course	3	
General Education	3	
	<b>15</b>	<b>15</b>

Total Hours: 124

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## Studio Art, Graphic Design BFA

First Year		
Fall	Hours Spring	Hours
INTDSC 1003	1 ST ART 1141	3
ST ART 1210	3 ST ART 1151	3
ST ART 1150	3 ST ART 1220	3
ART HS course <sup>2</sup>	3 General Education	3
General Education <sup>3</sup>	3 ST ART 2220	3
ST ART 1140	3	
	<b>16</b>	<b>15</b>

Second Year		
Fall	Hours Spring	Hours
ST ART 3310	3 ST ART 3311	3
ST ART 1142	3 ST ART 2210	3
ST ART 2221	3 ST ART elective (Photography or Print Making)	3
ART HS course	3 ART HS course	3
General Education	3 General Education	3
	<b>15</b>	<b>15</b>

Third Year		
Fall	Hours Spring	Hours
ST ART 3383	3 ST ART 3384	3
ART HS course	3 ST ART 2212	3
General Education	3 ST ART 1143 or 2240	3
ST ART 1030, 1132, or 2251	3 ENGL 3100	3

Fourth Year		
Fall	Hours Spring	Hours
ST ART 4497	3 ST ART 4498	3
Graphic Design elective	3 Graphic Design elective	3
ST ART elective	3 ST ART elective	3
ART HS course	3 General Education	6
General Education	3	
	<b>15</b>	<b>15</b>

Total Hours: 121

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## Studio Art, Painting BFA

First Year		
Fall	Hours Spring	Hours
INTDSC 1003 <sup>1</sup>	1 ST ART 1141	3
ST ART 1140	3 ST ART 1151	3
ST ART 1180	3 ST ART 1142	3
ART HS course <sup>2</sup>	3 General Education	3
General Education <sup>3</sup>	3 ST ART 1181	3
ST ART 1150	3	
	<b>16</b>	<b>15</b>

Second Year		
Fall	Hours Spring	Hours
ST ART 2250	3 ST ART 2281	3
ST ART 2280	3 ST ART 2240 or 2242	3
ST ART 1143	3 ST ART elective	3
ART HS course	3 ART HS course	3
General Education	3 General Education	3
	<b>15</b>	<b>15</b>

Third Year		
Fall	Hours Spring	Hours
ST ART 3391	3 ST ART 3381	3



ST ART elective	3 ST ART 2241 or 2243	3
ART HIST course	3 ST ART elective	3
General Education	3 ENGL 3100	
ST ART 1030, 1132, or 2251	3 General Education	6
	<b>15</b>	<b>15</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ST ART 4495	3 ST ART 4496	3
ST ART elective	6 ST ART elective	6
ART HS course	3 General Education	6
General Education	6	
	<b>18</b>	<b>15</b>
Total Hours: 124		

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## Studio Art, Photography BFA

<b>First Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
INTDSC 1003 <sup>1</sup>	1 ST ART 1141	3
ST ART 1060	3 ST ART 1143	3
ST ART 1150	3 ST ART 1142	3
ART HS Course <sup>2</sup>	3 General Education	3
General Education <sup>3</sup>	3 ST ART 2160	3
ST ART 1140	3	
	<b>16</b>	<b>15</b>
<b>Second Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ST ART 2250 (or ST ART elective)	3 ST ART 2240 or 1143	3
ST ART 2263	3 ST ART 2267	3
ST ART 3260	3 ST ART Electvie	3
ART HS Course	3 ART HS Course	3
General Education	3 General Education	3
	<b>15</b>	<b>15</b>

<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ST ART 3391	3 ST ART 3392	3
ST ART 1030, 1132, or 2251	3 Photography Studio Elective	3
ART HS Course	3 ST ART Elective	3
General Education	3 ENGL 3100	3
ST ART 2265	3 General Education	6
	<b>15</b>	<b>18</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ST ART 4490	3 ST ART 4491	3
Photography Studio Elective	3 ST ART Elective	6
ST ART Elective	3 General Education	6
ART HS Course	3	
General Education	3	
	<b>15</b>	<b>15</b>
Total Hours: 124		

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## Studio Art, Printmaking BFA

<b>First Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
INTDSC 1003 <sup>1</sup>	1 ST ART 1151	3
ST ART 1140	3 ST ART 2271	3
ST ART 1170	3 ST ART 1141	3
ART HS Course <sup>2</sup>	3 General Education	3
General Education <sup>3</sup>	3 ART HS Course	3
ST ART 1150	3	
	<b>16</b>	<b>15</b>
<b>Second Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ST ART 1173, 2272, 2273, or 3372	3 ST ART 2274	3
ST ART 1142	3 ST ART 1143	3
ST ART 2240	3 ST ART Elective	3
ART HS Course	3 ART HS Course	3

General Education	3 General Education	3
	<b>15</b>	<b>15</b>
<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ST ART 3370	3 ST ART 3371	3
ST ART 2241	3 ST ART 2242	3
ART HS Course	3 ST ART 1173, 2272, 2273, or 3372	3
General Education	3 ST ART Elective in Photography	
ST ART 1030, 1132, or 2251	3 ENGL 3100	3
	General Education	3
	<b>15</b>	<b>15</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ST ART 4495	3 ST ART 4496	3
ST ART 2243	3 ST ART Elective	6
ST ART 2250	3 General Education	6
General Education	6	
	<b>15</b>	<b>15</b>

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## Studio Art, General Fine Arts BFA

<b>First Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
INTDSC 1003 <sup>1</sup>	1 ST ART 1151	3
ST ART 1140	3 ST ART 1141	3
ST ART 1142	3 General Education	3
ART HS course <sup>2</sup>	3 ST ART elective	6
General Education <sup>3</sup>	3	
ST ART 1150	3	
	<b>16</b>	<b>15</b>
<b>Second Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ST ART 2250	3 ST ART elective	9

ST ART 2240 or 1143	3 ART HS course	3
ST ART elective	General Education	3
ART HS course	3	
General Education	3	
	<b>12</b>	<b>15</b>
<b>Third Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ST ART 3340, 3370, 3380, or 3391	3 ST ART 3341, 3371, 3381, or 3392	3
ST ART elective	3 ENGL 3100	3
ART HS course	3 ST ART elective	6
General Education	3 General Education	6
ST ART 1030, 1132, or 2251	3	
	<b>15</b>	<b>18</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
ST ART 4495	3 ST ART 4496	3
ST ART elective	6 ST ART elective	6
ART HS course	3 General Education	6
General Education	3	
	<b>15</b>	<b>15</b>

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## Art Education Courses

### **ART ED 2179 Art Activities for Elementary School: 3 semester hours**

A study of art principles and laboratory experiences with various media and materials. Stresses curriculum planning and development of the elementary school program in art. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

### **ART ED 3328 Art Education: Theory to Practice: 3 semester hours**

Prerequisites: TCH ED 2209, ED PSY 2212 and completion of Foundation Art Program. Development and application of concepts related to comprehensive art education and standards-based curriculum in art education, with an examination of current theories, trends, publications, and on-line resources in the field.

**ART ED 4260 Art Museum as Teaching Resource: 3 semester hours**

Prerequisites: TCH ED 2209, ED PSY 2212, 9 hours of Art History and completion of Foundation Art Program. Should be taken concurrently with ART ED 3328. Students will learn how to strengthen K-12 Art Education by utilizing the collections and resources of the St. Louis Art Museum. A variety of teaching approaches and learning activities for galleries and classrooms will be employed, focusing on art from around the world and throughout history.

**ART ED 4273 Curriculum and Methods of Teaching Art: 3 semester hours**

Prerequisites: ART ED 3328 and completion of, or concurrent enrollment in, TCH ED 3310, ED PSY 3312, SPEC ED 3318, or TCH ED 4391. A study of the scope and sequence of art education in the school curriculum, with emphasis on the preparation, selection, organization and application of materials and methods of instruction and assessment. Attention is also given to learning the research tools of the scholar in the field of art education. Not available for graduate credit.

**ART ED 4290 Special Study in Art Education: 1-6 semester hours**

Prerequisites: Junior, senior, or graduate standing and consent of instructor. Independent study through readings, reports, field research, or special projects. May be repeated for credit, up to a maximum of 6 credit hours.

**ART ED 5334 Topics in Contemporary Art Education: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Intensive study for advanced students and art teachers, emphasizing specialized techniques and innovative concepts. Topics to be announced. May be repeated for credit, up to a maximum of 12 credit hours. (PREVIOUS CATALOG NUMBER WAS STUDIO ART 3334).

**ART ED 5588 Museum Education and Visitor Research: 3 semester hours**

Prerequisites: Consent of director of Museum Studies Program. Development and operation of museum educational programs: learning theory; program design; relationships with exhibit development' programming for children and adults. Visitor research: theoretical foundations; research design; impact on programming and strategic planning.

**ART ED 5590 Special Study in Art Education: 1-6 semester hours**

Prerequisite: Graduate standing and consent of instructor. Independent study through readings, reports, field research, or special projects. May be repeated for credit.

**Art History Courses****ART HS 1100 Introduction To Western Art: 3 semester hours**

An introduction to major historical movements in Western art.

**ART HS 1101 Ideas in Art History: 3 semester hours**

Prerequisites: ART HS 1100 or consent of instructor. Studies of selected works of art, with attention to the social and cultural factors surrounding their creation. May not count for a major or minor in art history.

**ART HS 1103 Pre-Columbian Art and Architecture of Meso-and South America: 3 semester hours**

An overview of Pre-Columbian art and architecture that examines the contributions of Olmec, Toltec, Maya, Aztec, Inca, Andean and other Meso-American and South American cultures from prehistoric times until the Spanish intervention in the early 1500s.

**ART HS 1104 Indigenous Arts Of North America: 3 semester hours**

A survey of the indigenous arts of North America from precontact through the present. Cultures to be covered include Iroquois and Ojibway of the Northeast; Navajo and Pueblo of the Southwest; Kwagwath and Gitsxan of the Northwest Coast; and Inuit from the Arctic. The relationship of art to religion, philosophy, politics, and social life will be explored.

**ART HS 1105 Introduction To The Arts Of Africa: 3 semester hours**

A survey of the major art forms of Africa and the African Diaspora. The course addresses traditional media, such as architecture, masquerade, regalia, sculpture, metalwork, ceramics, and textiles, as well as contemporary sculpture, painting, photography, and performance. This course satisfies the cultural diversity requirement.

**ART HS 1108 Introduction To The Arts Of Asia: 3 semester hours**

A survey of the major achievements in architecture, sculpture, and painting of India, China, Japan, and Southeast Asia, with an emphasis on religious, historical, and social context of the arts. This course satisfies the cultural diversity requirement.

**ART HS 2211 Art And Archaeology Of The Ancient World: 3 semester hours**

Prerequisite: ART HS 1100. A survey of art in Egypt, the ancient Near East, Greece, and Rome, beginning in the Neolithic era (8000-4000 BC) and ending with the Barbarian invasions of Italy in the fifth century A.D. The major highlights of architecture and city planning, sculpture, painting, pottery, and the minor arts will be covered.

**ART HS 2212 Greek Art And Archaeology: 3 semester hours**

General survey of material culture in the Aegean basin, beginning with the Bronze Age (Third Millennium B.C.) and terminating in the late Hellenistic period (Second Century B.C.). For the Hellenistic period the course will trace Greek developments and influences outside of the Aegean, for example in Italy and in Egypt.

**ART HS 2225 Medieval Art: 3 semester hours**

A survey of the art and architecture of the Mediterranean World and northern Europe from late antiquity to the late Gothic period (300-1300 A.D.). Focus on new styles and subject matter in painting, sculpture and architecture.

**ART HS 2235 Italian And Northern European Renaissance Art: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. An introduction to selected artworks, artists and patrons in Italy and Northern Europe throughout the fifteenth and sixteenth centuries, beginning with Ghiberti and Van Eyck and ending with Michelangelo and Brughel.

**ART HS 2238 Italian Renaissance Art: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. Study of sculpture, paintings, and architecture in Florence, Rome, and Venice during the fourteenth, fifteenth, & sixteenth centuries as reflections of cultural, religious, philosophical, and political beliefs.

**ART HS 2240 French Art And Architecture 1400-1715: 3 semester hours**

Prerequisite: ART HS 1100. A survey of art and architecture in France from the late medieval period to the late baroque. Topics will include the development of French chateaux and gardens, the rise of the Academy, and the influence of royal patronage on the arts.

**ART HS 2245 Baroque Art And Architecture: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. A survey of the major paintings, statues, buildings, and their artists and patrons in seventeenth-century Italy, France, Flanders, Holland, and Spain. Special attention will be given to the study of the city of Rome.

**ART HS 2248 Eighteenth Century European Art: 3 semester hours**

Prerequisites: ART HS 1100 or permission of the instructor. A survey of European art and architecture from 1700 to 1800, primarily in England, France, and Italy. Topics will include the Rococo and Georgian styles; the Classical and Gothic revivals; the impact of the Enlightenment; the Grand Tour and admiration of antiquity; and decorative arts, including ceramics, interior design, and gardens.

**ART HS 2250 Nineteenth Century European Art: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. A survey of European art from 1780 to 1880, focusing on developments in England, France, Germany, and Scandinavia. Topics to be addressed include Neoclassicism, Romanticism, Realism, and Impressionism.

**ART HS 2255 Modern Art: 3 semester hours**

Prerequisite: ART HS 1100 or consent of the instructor. A survey of art from 1880 to 1960. Topics to be addressed include Post-Impressionism, Cubism, Surrealism, Abstract Expressionism, and non-representational art.

**ART HS 2265 History Of Photography: 3 semester hours**

Prerequisite: ART HS 1100 or consent of instructor. A study of photography: its historical development, an examination of it as an art medium, and its influence on the development of modern art.

**ART HS 2270 American Art To 1876: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. An overview of the major developments in painting, sculpture, and the decorative arts in the United States to 1876.

**ART HS 2272 American Art Since 1876: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. Major developments in American painting, sculpture, and the decorative arts since 1876.

**ART HS 2279 American Architecture: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. An overview of American Architectural practice from 1600 to the present.

**ART HS 2281 Art Since 1960: 3 semester hours**

Prerequisite: ART HS 1100 or consent of the instructor. A survey of art from 1960 to present. Topics to be addressed include Pop Art, Conceptual Art, Minimalism, Performance Art, and other recent art forms and movements.

**ART HS 2291 Issues And Ideas In Art History: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. Intensive studies of a few selected works from various eras and cultures, with special attention to the particular social and cultural factors surrounding their creation. May be repeated for credit with a change of topic and permission of advisor.

**ART HS 3303 Media And Technique In Art History: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. Technical demonstration of and research into various materials and media used by artists. In addition to ancient media such as egg tempura and fresco, it will include modern media such as photography and video.

**ART HS 3350 Studies in Design: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. The course examines selected topics in the history of design, and may include genres such as architecture, material culture, or graphic design. May be repeated for credit with a different topic, for a maximum of 6 credit hours.

**ART HS 3360 Photography And Society: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. A study of photography as a means of information and expression, as an influence on culture, and as a reflection of concepts in politics, science, morality, and art. This course counts toward the major.

**ART HS 3365 The Artist And The City: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. Examines the role of urban centers as a locus for significant artistic activity, as a recurring theme in art, and as spatial and physical architectural realities. Aspects of urban planning, urban imagery in art and the social, political, and personal networks artists develop as a result of living in particular urban centers at particular moments in history will be among the topics discussed.

**ART HS 3374 Philosophy Of Art: 3 semester hours**

Same as PHIL 3374. A critical study of issues as the definition of art, the nature of aesthetic experience, meaning and interpretation in the arts, art and emotion, value in art.

**ART HS 3376 Gender in the Visual Arts: 3 semester hours**

Same as GS 3376. Prerequisites: Minimum of one 2000-level course in art history and ENGL 3100, or consent of instructor. Selected topics in the role of gender difference in the production and reception of works of visual art and culture. This course will consider examples of historical and contemporary works through gender theories and the analysis of cultural and social factors that contribute to the construction of sexualities and genders.

**ART HS 3385 Studies In Architectural History: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. A study of selected topics in architectural history. The content of the course will vary, and the course may be repeated for credit with permission of the instructor and departmental advisor. Possible topics include the history of the castle, factory architecture, the evolution of the Gothic cathedral, and domestic and vernacular architecture.

**ART HS 3387 Professional Internship: 1-6 semester hours**

Prerequisites: Minimum of two 2000-level courses in art history and ENGL 3100 and consent of instructor. The internship provides experience in museums, historical societies, galleries, design firms, or visual resource collections. Students will assist in the diverse duties associated with the day-to-day functions of the institution, under the joint direction of a faculty advisor and a supervisor at the institution. Course requirements may include readings, research assignments, and/or a paper. This course may be counted for art history or studio art credit with the department's consent.

**ART HS 3388 St. Louis Art Museum Internship: 3 semester hours**

Prerequisites: Art & Art History or Anthropology major, minimum of two 2000-level courses in art history and ENGL 3100 and consent of instructor. Students selected by the Internship Committee will work 15-20 hours per week under the direction of staff at the St. Louis Art Museum. Projects may include research on the collection, exhibitions, and programs.

**ART HS 3389 Visual Resources Management: 1-3 semester hours**

Prerequisites: Minimum of two 2000-level courses in Art History, ENGL 3100, and consent of instructor. A hands-on course in the Department of Art and Art History's media center that will cover collection development and management as well as technical and theoretical issues in the visual resources profession.



**ART HS 3390 Special Study: 1-4 semester hours**

Prerequisite: Junior or senior standing. Consent of instructor and Art History advisor. Independent study through readings, reports or field research. May be repeated one time with consent of Art History advisor. My not be used for internship credit.

**ART HS 3391 Selected Themes In Art History: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. The course examines selected themes in art history. Course content will vary; the course may be repeated for credit with a different theme, for a maximum of 6 credit hours.

**ART HS 3393 Art Museum And Gallery Management: 3 semester hours**

Prerequisites: Minimum of two 2000-level courses in Art History and ENGL 3100 or consent of instructor. This course will consider the practical application of professional training in art history as it applies to not-for-profit gallery management. Topics covered will include: grant writing in the arts, the development of art exhibits, the role of the art curator, and the operation of a gallery.

**ART HS 3395 Sophomore/Junior Seminar: Research in Art History: 3 semester hours**

Prerequisite: Minimum of two 2000-level courses in Art Hist and ENGL 3100, or consent of instructor. An introduction to research and writing techniques in art history, organized around a topic to be announced. Course includes directed readings, research and writing.

**ART HS 3396 The Nude In Art: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. An exploration of the various meanings of nudity in art. The cultural, social and psychological contexts of nudity and geographic regions, both western and non-western. Representations of both males and females will be analyzed in terms of gender construction, political authority, and personal identity.

**ART HS 3397 Landscape Perspectives In Art: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. This seminar considers the various conventions for representing landscape and nature, and human relationships to landscape, throughout history and across cultures. Issues to be considered may include: landscape as metaphor in European painting; contemporary earthworks; lanscape photography; and the relationship of artist to landscape in the non-western world.

**ART HS 3398 The Portrait: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. An examination of portraiture in its social, economic and political contexts. Group and individual portraits will be analyzed in terms of gender construction, social status, family history and personal and public identity throughout selected periods of western and non-Western culture.

**ART HS 4408 Topics In The Arts Of Asia: 3 semester hours**

Prerequisites: ART HS 1108 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in the arts of Asia. The content of the course will vary. May be repeated for credit with permission of instructor and advisor. This course satisfies the cultural diversity requirement.

**ART HS 4411 Topics In Ancient Art And Archaeology: 3 semester hours**

Prerequisites: ART HS 2211, ART HS 2212, or ART HS 2213, and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of some aspect of ancient art and archaeology, with emphasis prior to the common era. May be repeated for credit with permission of instructor and advisor.

**ART HS 4425 Topics In Medieval Art: 3 semester hours**

Prerequisite: ART HS 2225 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. A study of the selected topics in Medieval art. The content of the course will vary, focusing on single topics such as manuscript painting, the Gothic cathedral and its sculptural decoration, or the art of pilgrimage churches. May be repeated for credit with permission of instructor.

**ART HS 4435 Topics In Renaissance Art: 3 semester hours**

Prerequisites: ART HS 2235, and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Studies of selected topics, which will vary. Subjects to be considered may include the art of Florence, the role of patronage in Renaissance Italy and Papal art. May be repeated for credit with a different topic.

**ART HS 4445 Topics In 17Th And 18Th Century European Art: 3 semester hours**

Prerequisite: ART HS 2245 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. A study of selected topics in Baroque and Rococo art. The content of the course will vary, focusing on single areas, such as the Baroque in Rome, or on major artists; such as Bernini, Rubens and Rembrandt. May be repeated for credit with permission of instructor and advisor.

**ART HS 4455 Topics In Modern Art: 3 semester hours**

Prerequisites: ART HS 2255 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in art of the nineteenth and/or twentieth centuries. May be repeated for credit with permission of instructor and advisor.

**ART HS 4475 Topics In American Art: 3 semester hours**

Prerequisites: ART HS 2270 or ART HS 2272 or ART HS 2279 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in American art. May be repeated for credit with permission of instructor and advisor.

**ART HS 4481 Topics In Contemporary Art: 3 semester hours**

Prerequisites: ART HS 2281 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in art since 1960. May be repeated for credit with permission of instructor and advisor.

**ART HS 4490 Special Study: 1-4 semester hours**

Prerequisite: Junior/Senior standing. Consent of instructor and Art History advisor. Independent study through readings, reports, or field research. May be repeated one time with consent of Art History advisor. May not be used for internship credit.

**ART HS 4495 Senior Seminar: Methods of Art History: 3 semester hours**

Prerequisite: ART HS 3395, ENGL 3100 and Senior standing in art history or consent of instructor. An advanced class in the methods of art historical analysis. Theoretical perspectives will include connoisseurship, style, iconography, social history, and others.

**ART HS 5578 Topics In American Art: 3 semester hours**

Prerequisites: Graduate standing and consent of instructor. This course examines a discrete aspect of the history of American art within the changing social, cultural and historical contexts of Euro-American and/or Native American experiences and traditions.

**ART HS 5592 The History Of The Visual Arts In American Museums: 3 semester hours**

Same as ANTHRO 5592 and HIST 5592. Prerequisites: Graduate standing and consent of instructor. This course is an introduction to selected topics in the history of museology, focusing on art and anthropology museums as sites for the interpretations of art and culture, and as contested meeting grounds for various views of history and culture.

**ART HS 6035 Foundations In Museology I: 3 semester hours**

Same as ANTHRO 6135 and HIST 6135. Prerequisites: Consent of Director of Museum Studies Program. Concepts for understanding museums in their social and cultural context; history of museums; museology and general social theory; information transfer vs. meaning-making models; museums and communities; the changing role of museums; museums as complex organizations; process models of museology.

**ART HS 6036 Foundations Of Museology II: 3 semester hours**

Same as ANTHRO 6136 and HIST 6136. Prerequisites: ART HS 6035 consent of Director of Museum Studies Program Audience-centered approaches to museology; visitor research and learning theory; philosophical and practical considerations in museum planning; the physical design of museums; creativity; exhibit and program development; collections and curation; the challenge of diversity; the future of museums.

**ART HS 6037 Museum Organization and Operations: 3 semester hours**

Same as ANTHRO 6137 and HIST 6137. Prerequisites: Consent of Director of Museum Studies Program. This course looks at museum organization and operations in the 21st century. As museums become more focused on visitors, communities, and private donors, their structures, staffing, and practices have changed. This course introduces students to the wide range of museum professions, the evolving function of museums, the effects of new technologies, and the challenges of administration and funding in constrained economic circumstances. The course includes scrutiny of ethical issues such as disputed collections, intellectual property rights, organizational conflicts, and community collaboration and planning.

**ART HS 6038 Museum Studies Master's Project: 4 semester hours**

Sames as ANTHRO 6138 and HIST 6138. Prerequisites: Consent of Director of Museum Studies Program. Research and writing/exhibit development on a selected topic.

## Studio Art Courses

**ST ART 1020 Expanded Artforms: 3 semester hours**

A practical and theoretical exploration of contemporary art practices organized around structured assignments that will explore various modes of working in art. This course is designed to assist studio students in developing a personal, non-medium specific approach to art making and problem solving. Lab fee required. Basic computer lab equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 1030 Ceramics I: 3 semester hours**

An introduction to basic methods and theory of ceramics including work with hand-built construction, wheel techniques and glazing. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1060 Photography I: 3 semester hours**

An introduction to the techniques and aesthetics of digital photography, along with photo editing software and printing techniques. Students must provide a digital camera. Lab fee required. Basic computer lab equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 1061 Introduction to Digital Photography: 3 semester hours**

An introduction to the techniques and aesthetics of digital photography, along with photo editing software and printing techniques. Students must provide a digital camera. Lab fee required. Basic computer lab equipment will be provided, though students will need to supply some personal equipment and supplies. Students who plan to pursue a career in art should enroll in ST ART 1060 rather than ST ART 1061. ST ART 1061 does not satisfy the prerequisite requirement for other courses in Photography beyond the 2000 level, but may count towards Photography electives.

**ST ART 1080 Comics & Cartoon Illustration: 3 semester hours**

A course in creating and appreciating the world of comics and cartoons. This course will investigate the tools and techniques for creating cartoons, cartoon illustrations and the world of comics. Students will create their own cartoons with traditional media and also with computers. While designed for beginners, experienced artists will be encouraged to perfect their personal styles. The class will create and print its own comic book. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1130 Ceramics II: 3 semester hours**

Prerequisite: ST ART 1030 A continuation of ST ART 1030. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1132 Sculpture I: 3 semester hours**

An introduction to traditional and contemporary materials, aesthetics, and theories of three-dimensional art. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1133 Introduction To Fibers And Textiles: 3 semester hours**

Prerequisites: ST ART 1150. Exploration of a variety of on- and off-loom weaving and other fiber and textile media and techniques. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 1140 Drawing I: 3 semester hours**

An introduction to drawing through the study of figure, object, and environment. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1141 Drawing II: 3 semester hours**

Prerequisite: ST ART 1140. The development of drawing skills though continued observation and problems of invention. A further exploration of varied drawing materials and techniques including graphite, charcoal, conte crayon, and inks. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1142 Figure Drawing I: 3 semester hours**

Basic studies of the human form and anatomy from the model in a variety of drawing media. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1143 Figure Drawing II: 3 semester hours**

Prerequisite: ST ART 1142 Continuation of Figure Drawing I. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1150 Design I: 3 semester hours**

Studio problems in the creative use and integration of the elements of two-dimensional design: line, form, space, texture. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1151 Design II: 3 semester hours**

Prerequisite: ST ART 1150 A continuation of ST ART 1150, two-dimensional design, with introduction to color theory. Some application of mixed media problems. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1170 Printmaking I: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 or consent of instructor. An introduction to printmaking techniques, materials, and theories. The course will include work in a variety of print materials. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1173 Printmaking: Screenprinting I: 3 semester hours**

Prerequisite: ST ART 1170 An introduction into the techniques, methods, and aesthetics of screenprinting. Studio problems involving uses and approaches will be emphasized. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1180 Painting I: 3 semester hours**

Prerequisite: ST ART 1140, ST ART 1150 or consent of instructor. An introduction to the use of oil and/or acrylic painting media. Studio problems to develop technical and expressive skills on various surfaces. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1181 Painting II: 3 semester hours**

Prerequisite: ST ART 1180 or consent of instructor Continuation of basic studio problems in painting media. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1210 Graphic Design I: 3 semester hours**

Prerequisite: None. Introduction to graphic design with an emphasis on fundamentals of space, emotion, shape, form, and concept. Projects in design, layout and typography will be addressed. The course is recommended to be taken concurrently with ST ART 1150, Design I. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 1220 Graphic Design II: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1210. Continuing introduction to graphic design, focusing on developing concepts and design process, typographic systems and layout systems. The course is recommended to be taken concurrently with ST ART 2220, Computer Design I. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2100 Advertising Art Fundamentals: 3 semester hours**

Prerequisites: MEDIA ST 2090 or consent of the Coordinator for the Certificate in Advertising. This course introduces students to basic principles of production, including layout, type, color, readability, and image selection. The course is intended for students pursuing a Certificate in Advertising, and does not count towards a degree in Graphic Design.

**ST ART 2160 Photography II: 3 semester hours**

Prerequisite: ST ART 1060. An introduction to the techniques and aesthetics of black and white photography and the darkroom. Students must provide a film camera with adjustable speeds and aperture. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2210 Typography: 3 semester hours**

Prerequisites: ST ART 1220 or consent of the instructor. Course intends to instill a sense of responsibility relative to typographic and production design, while developing the student's capacity for critical thinking and general typographic rules, visual hierarchy of typographic elements, classical typographic tradition, book design, awareness of typographic aesthetic.

**ST ART 2212 Image Making for Graphic Design: 3 semester hours**

Prerequisites: ST ART 1220 or instructor's consent. This course teaches skills of making images and custom type for use in visual communication. Topics covered include a survey of traditional and experimental illustration techniques with an emphasis on creation of original imagery. The class will discuss how hand images are further developed and combined on the computer for use in design. Creativity, discovery, and craft are highly emphasized. Lab fee required.

**ST ART 2220 Computer Design I: 3 semester hours**

Prerequisite: ST ART 1150 and ST ART 1210. An introduction to the use of computer graphics for the creation of artwork applicable to the graphic design industry. The course is recommended to be taken concurrently with ST ART 1220, Graphic Design II. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2221 Computer Design II: 3 semester hours**

Prerequisite: ST ART 2220 Designed to familiarize students with the methods processes, software, and computer functions used in graphic design and illustration. The course is recommended to be taken concurrently with ST ART 3310, Graphic Design III. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2240 Drawing III: 3 semester hours**

Prerequisites: ST ART 1140 and ST ART 1141 This course offers studio problems designed to further the development of drawing skills in various media. Limited color will also be introduced. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2241 Drawing IV: 3 semester hours**

Prerequisite: ST ART 2240 Studio problems with emphasis on color and multi-material approach to drawing. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2242 Figure Drawing III: 3 semester hours**

Prerequisites: ST ART 1142 and ST ART 1143 Advanced study of the human form and anatomy from the model in a variety of drawing media. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2243 Figure Drawing IV: 3 semester hours**

Prerequisite: ST ART 2242. Continuation of ST ART 2242. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.



**ST ART 2250 Composition: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1151 An investigation of the use of formal design elements as used in historic and contemporary art. Weekly studio problems and discussions will concentrate on skills, application, and unifying effects of compositional elements on a variety of visual art forms. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2251 Design III: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1151. Advanced studio problems in design materials. Use of twodimensional and three-dimensional mixed media. Experimental use of materials and media will be introduced. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2262 Color Photography I: 3 semester hours**

Prerequisite: ST ART 1060 or equivalent An introduction to the techniques and aesthetics of color photography. Mastering the printing and finishing processes and producing a color print portfolio will be the requirements of this class. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2263 Digital Color Process: 3 semester hours**

Prerequisites: ST ART 1060. An extended study in the process of digital printing. The class will help students refine their techniques using digital color management and explore various techniques to assure the closest relationship between the image on the monitor and the resulting print. Hands-on training with different digital printers, digital media and scanning techniques will be offered. This class will involve both learning exercises and the creation of original computer-aided photographic art. Lab fee required. Students must provide a digital camera. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2264 Non-Silver Photography: 3 semester hours**

Prerequisites: ST ART 1060 and ST ART 2160. An introduction to the aesthetics and techniques of nontraditional photographic processes. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2265 Commercial Applications In Photography: Portrait Photography: 3 semester hours**

Prerequisites: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of portait photography. Techniques of lighting, posing, and studios equipment will be explored. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2266 Commercial Applications in Photography: Product Photography: 3 semester hours**

Prerequisites: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of product Photography. Techniques of lighting, posing and studio equipment will be explored. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee is required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2267 The Constructed Photograph: 3 semester hours**

Prerequisites: ST ART 2263. An exploration of the constructed photograph through the art of digital collage. The class will survey the history of hand-created photographs. In addition, students will learn advanced Photoshop techniques in order to create original computer-aided photographic art. Lab fee required. Basic computer equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2268 Commercial Applications in Photography: Event Photography: 3 semester hours**

Prerequisites: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of event photography. The class will focus on a variety of event photography types, including weddings, corporate and non-profit events, photoboosts, concerts, etc. Special emphasis will be placed on photographing for the client. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2269 Commercial Appl in Photo: Photojournalism, Documentary, & Publ Relations Photography: 3 semester hours**

Prerequisite: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of photojournalism, documentary, and public relations photography. The class will concentrate on a variety of photographic applications focusing on news and editorial imagemaking, as well as training the student in public relations assignments. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2271 Printmaking II: 3 semester hours**

Prerequisite: ST ART 1170 or consent of instructor A continuation of ST ART 1170. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2272 Printmaking:Lithography I: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 or consent of instructor. An introduction to printmaking skills and theory in stone and plate lithography. Studio problems in the use of materials and equipment. Attention will be given to individual development. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2273 Printmaking: Etching: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 or consent of instructor. An introduction to printmaking skills and theory of contemporary etching practices. Development of skills and aesthetic judgements in the media using non-toxic etching processes. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2274 Printmaking And Relief: 3 semester hours**

Prerequisites: ST ART 1170 and ST ART 2271 Advanced problems in relief printmaking. Work in wood and mixed materials. Development of skills and aesthetic judgments in the media. May be repeated for credit with consent of instructor. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.



**ST ART 2280 Painting III: 3 semester hours**

Prerequisite: ST ART 1181 or consent of instructor. Advanced studio problems in painting media. Attention paid to individual development of theory, expression, and technique. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2281 Painting IV: 3 semester hours**

Prerequisite: ST ART 2280 A continuation of ST ART 2280. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2283 Watercolor Painting: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 Beginning problems in watercolor painting. Includes the study of traditional and contemporary approaches to color, color techniques, and treatment of papers. May be repeated for credit. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2290 Special Study: 1-10 semester hours**

Prerequisites: Junior/Senior Standing And Consent Of Department And Instructor Independent Study Through Readings, Reports Or Field Research. Lab Fee Required. Basic Studio Equipment Will Be Provided Though Students Will Need To Supply Some Personal Equipment And Supplies.

**ST ART 3074 Special Topics In Studio Art: 3 semester hours**

Prerequisites: Minimum completion of 18 hours in Studio Art. Selected topics in studio studies. May be repeated for credit with a change of topic. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3260 Photography III: 3 semester hours**

Prerequisite: ST ART 2160 An exploration into contemporary theories and trends in photography. Advanced projects, portfolios and techniques will be expected from those enrolled. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3263 Digital Color Portfolio: 3 semester hours**

Prerequisites: ST ART 2263. Intermediate exploration of the aesthetics and techniques of digital photography including an investigation of color management in printing. Students will produce one or more portfolios of digital images. Lab fee required. Basic lab equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3310 Graphic Design III: 3 semester hours**

Prerequisite: ST ART 1220 and ST ART 2220. Advanced studio problems to further the understanding of design and its relationship to typographic elements, illustration, and communication. The course will encourage both conceptual and technical development of the designer. The course is recommended to be taken concurrently with ST ART 2221, Computer Design II. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3311 Graphic Design IV: 3 semester hours**

Prerequisite: ST ART 3310 and ST ART 2221. Further studio problems in the graphic arts. The course is recommended to be taken concurrently with ST ART 2210, Typography. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3312 Advanced Topics in Graphic Design: 3 semester hours**

Prerequisites: ST ART 3311 or permission of instructor. Studies of selected topics, which will vary. May be repeated for credit with a different topic, for a maximum of 9 credit hours. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3340 Advanced Problems In Drawing I: 3 semester hours**

Prerequisite: ST ART 2241 This course is focused on professional-level art and portfolio production. It offers studio problems designed to further the development of drawing skills. Emphasis will be given to the study of drawing as an independent art form. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3341 Advanced Problems In Drawing II: 3 semester hours**

Prerequisite: ST ART 3340 A continuation of ST ART 3340. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3350 Studio Art Internship: 1-6 semester hours**

Prerequisites: Junior/Senior standing in studio art and consent of the faculty advisor. The internship provides experience in design firms, professional art studios, or comparable settings. Students will assist professionals in the diverse duties associated with studio art activities. Course assignments may include research assignments and/or reports to be reviewed by the faculty advisor and/or supervisor. May be repeated for credit, up to a maximum of 6 credit hours.

**ST ART 3363 Special Topics In Photography: 3 semester hours**

Prerequisites: ST ART 2160. Photography II & permission of advisor Selected topics in photographic practice. May be repeated for credit with permission of advisor. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3370 Advanced Problems In Printmaking I: 3 semester hours**

Prerequisite: ST ART 2274. This course is focused upon professional-level art and portfolio production. After completion of this and the preceding course, students should be ready to meet the artistic and intellectual demands of today's visual art world. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3371 Advanced Problems In Printmaking II: 3 semester hours**

Prerequisite: ST ART 3370 A continuation of ST ART 3370. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3372 Advanced Lithography: 3 semester hours**

Prerequisite: ST ART 1173 Continuing problems in lithography with problems in black and white, photolithography, and/or color. May be repeated for credit. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3380 Advanced Problems In Painting I: 3 semester hours**

Prerequisite: ST ART 2281 This course is focused on professional-level art and portfolio production. Non-traditional materials might be explored. Attention is focused on individual development of painting theory, self-expression, and advanced techniques. The student is expected to assume a substantial responsibility with regard to direction, motivation, and content. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3381 Advanced Problems In Painting II: 3 semester hours**

Prerequisite: ST ART 3380 A continuation of portfolio production in ST ART 3380. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3383 Advanced Problems In Graphic Design I: 3 semester hours**

Prerequisite: ST ART 3311 and ST ART 2210. This course is focused on professional-level art and portfolio production. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3384 Advanced Problems In Graphic Design II: 3 semester hours**

Prerequisite: ST ART 3383. A continuation of ST ART 3383. The course includes the preparation of a faculty-reviewed portfolio. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3390 Special Study: 1-10 semester hours**

Prerequisite: Junior/senior standing and consent of department chairperson and instructor. Independent study through readings, reports, or field research. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3391 Advanced Problems In Photography I: 3 semester hours**

Prerequisites: ST ART 2263 and ST ART 3260. This course is focused on professional-level art and portfolio production. Students may employ black and white, color, nonsilver, or other traditional or non-traditional press for projects in this course. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3392 Advanced Problems In Photography II: 3 semester hours**

Prerequisite: ST ART 3391 A continuation of ST ART 3391. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 4389 Graphic Design Studio: 3 semester hours**

Prerequisites: ST ART 3384 or permission of instructor Students will work on actual client projects in a studio setting from creative concept through client presentation. Studies will include client interviews, project planning, studio operations, project budget and estimating, vendor selection, prepress preparation, working in creative groups and professional presentations.

**ST ART 4490 Senior Seminar In Photography I: 3 semester hours**

Prerequisite: Senior Standing and ST ART 3392. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Fall semester.

**ST ART 4491 Senior Seminar In Photography II: 3 semester hours**

Prerequisites: Senior standing and ST ART 4490. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Spring semester.

**ST ART 4495 Senior Studio Seminar: 3 semester hours**

Prerequisites: Senior standing and ST ART 3381, ST ART 3341, ST ART 3392 or ST ART 3371. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Fall Semester.

**ST ART 4496 Senior Studio Seminar: 3 semester hours**

Prerequisites: Senior standing and ST ART 4495. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Winter Semester.

**ST ART 4497 Senior Seminar In Graphic Design I: 3 semester hours**

Prerequisites: Senior standing and ST ART 3384. Students must pass the junior portfolio review. Weekly critiques and discussions of technical and professional issues. Will instruct students in the methods of professional preparation. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 4498 Senior Seminar In Graphic Design II: 3 semester hours**

Prerequisites: ST ART 4497. Continuation of ST ART 4497. Will instruct students in the methods of professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 5590 Special Study: 1-6 semester hours**

Prerequisites: Graduate standing and consent of instructor. Independent study through art making, readings, reports, or field research. Studio Art fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies. May be retaken for credit with consent of instructor.

## Communication

### General Information

#### The Bachelor of Arts in Communication

The B.A. in communication is a flexible degree program that allows the student to tailor their curriculum to meet specific interests and needs while simultaneously providing a strong foundation in the major specializations of the discipline. The faculty encourages all students to meet early and often with their faculty adviser to select a meaningful group of courses for a coherent, career-oriented academic program. Students who seek this degree will, upon completion, understand how to communicate competently and effectively in a variety of contexts and mediums. In addition, students will develop a strong foundation in the theory and research underlying effective communication. Finally, students will demonstrate their competence through the internship and practicum requirements.

### Minors in Communication

The Department of Communication offers a minor in Communication that can provide many benefits to students majoring in other programs (for more information, see the requirements for minors in the undergraduate studies section). The Minor in Communication can complement a variety of other degrees. Students who complete the minor will be able to

understand and apply the theories underlying competent and effective communication.

## Certificate in Public Relations

The Department of Communication offers a sequence of courses that can prepare students for a successful career in public relations. This writing-intensive certificate program includes a selection of required and elective courses that integrate practical knowledge of the PR industry with the communication theory and research that undergird it. The certificate will be valuable both to those already in the workplace, and to undergraduates pursuing a public relations career. Closely aligned with the latest recommendations from the Public Relations Society of America and the National Communication Association, the curriculum will provide students with both the public relations theoretical base and practical hands-on skills necessary to succeed in public relations.

## Other Certificate Programs

In addition to offering the Certificate in Public Relations, the department supports a number of certificate programs. For more information, see Certificate Programs and Interdisciplinary Studies.

## Master of Arts in Communication

The Master of Arts degree program provides the opportunity for an advanced degree program in communication with a strong theory and research emphasis. Students can select courses that emphasize broad categories of communication such as organizational communication and/or mass communication. The program will help students develop a strong background in communication theory and research which would allow for the pursuit of a doctorate in communication, opportunities for professional positions, and the potential for a vertical or lateral move within an organization. Students who complete the M.A. in Communication will have a detailed understanding of the academic discipline. They will have developed critical skills for evaluating communication related theories and research, and the ability to apply that knowledge in their own research or professional settings. For further details, please see the Graduate Studies section of the Communication Department listings.

## Career Outlook

The B.A. in communication prepares students for careers in numerous fields. Past graduates are working in the following positions: promotion and public relations, administration, advertising, marketing, web page design, market research, corporate media, sales, training, speech writing, teaching, and research. Other students have pursued graduate education in communication programs offering the M.A. and Ph.D. degrees.

## Faculty Overview

The faculty represents many fields within the discipline of communication, including interpersonal communication, organizational communication, mass communication, public relations, and rhetoric. Most faculty members contribute to a growing body of knowledge by conducting research, publishing their results in scholarly journals, and presenting papers at national and international communication conferences. By integrating theory, research, and practice, faculty members are able to offer a comprehensive approach to contemporary communication problems.

## Undergraduate Studies

### General Education Requirements

Majors must satisfy the university and college general education requirements (<http://bulletin.umsr.edu/generaleducationrequirements>). The

college's foreign language requirement may be taken in any language. Communication courses may not be taken on a satisfactory/unsatisfactory basis.

## Degree Requirements

### Bachelor of Arts in Communication

Majors must complete a minimum of 36 semester hours in Communication courses. At least 18 of these must be taken at UMSL. Furthermore, at least 12 semester hours of the Communication courses completed must be numbered 3000-4999. All students must complete the required courses and earn a C or better in all communication courses applied to the degree.

### Required courses for the major

COMM 1030 (p. 364)	Interpersonal Communication I	3
COMM 1050 (p. 364)	Introduction To Mass Communication	3
COMM 2231 (p. 364)	Communication In The Organization	3
COMM 3330 (p. 364)	Research Methods In Communication I	3
COMM 3332 (p. 364)	Intercultural Communication	3
COMM 4920 (p. 364)	Practicum In Applied Communication	1-3
COMM 4950 (p. 364)	Internship In Applied Communication	3-6
Total Hours		19-24

## Department Activities and Internships

Co-curricular projects and activities relevant to the personal, professional, and academic goals of each student are sponsored and advised by the department. Along with the traditional academic experience, students can network and develop valuable experiences through their completion of required internship or practicum courses. Students may choose from a wide-range of for-profit, nonprofit, and not-for-profit organizations. Students should visit the Department of Communication for more information regarding existing opportunities, and/or consult with the Internship and Practicum Coordinator to approve a new internship site. By tailoring the internship site to the interests of each student, the internship and practicum augment the academic experience and provide valuable opportunities for majors to apply their communication studies.

## Minor in Communication

Coursework for a minor in Communication consists of 15 semester hours of the core requirements for the major. Credit hours in and/or COMM 3395 (p. 364) may be substituted for credit hours listed below with written consent of the communication department chairperson.

### Core Requirements:

COMM 1030 (p. 364)	Interpersonal Communication I	3
COMM 1050 (p. 364)	Introduction To Mass Communication	3
COMM 2231 (p. 364)	Communication In The Organization	3

COMM 3330 (p. 364)	Research Methods In Communication I	3
COMM 3332 (p. 364)	Intercultural Communication	3
Total Hours		15

At least 9 of the 15 hours required for the minor must be taken at UMSL.

Students must earn at least a C for all communication courses applied to the minor. A minimum GPA of 2.5 is required in the minor.

## Certificate in Public Relations

The Certificate in Public Relations integrates essential professional skills with contemporary communication theory and research to provide a grounded sequence based on the recommendations of the Public Relations Society of America and the National Communication Association. To earn the certificate, students must complete a minimum of 27 credit hours in the designated courses.

### Required Coursework

COMM 1150	Introduction To Public Relations	3
COMM 3358	Communication In Public Relations	3
COMM 3360	Media & Health Communication	3
COMM 3370	Social Media in Public Relations	3
COMM 4035	Integrated Approaches-Public Relations, Advertising, & Promotion	3
COMM 4100	Communication Campaigns	3
COMM 4199	Applied Public Relations	3
or COMM 4950	Internship In Applied Communication	
Elective Coursework (minimum of 6 credit hours required):		6
COMM 1050	Introduction To Mass Communication	
COMM 1135	Communication Theory	
COMM 2231	Communication In The Organization	
COMM 2232	Effective Communication In The Organization: Tools For Leadership	
COMM 2240	Persuasive Communication	
COMM 3330	Research Methods In Communication I	
COMM 3395	Special Topics In Communication	
Total Hours		27

For more information on this certificate, please contact the Department of Communication's Public Relations Sequence Coordinator.

## Bachelor of Arts in Communication with Certification in Secondary Education

In addition to the requirements for the B.A. in communication and general requirements set by the College of Education, students must meet the state requirements for certification.

The B.A. and certification for grades 7-12 can be completed by taking a minimum of 39 hours in communication, selected according to departmental recommendations. The B.A. and certification for grades 7-9 can be obtained by taking 36 hours in communication, selected according to departmental recommendations. Requirements of the College of Education include courses in professional education.

## Graduate Studies

The department offers a Master of Arts degree in Communication.

### Admission Requirements

Applicants must have a baccalaureate in communication or a related discipline by the end of the semester in which they apply. The minimum cumulative GPA required for regular admission to the graduate program in communication is 3.25 on a 4-point scale. In addition three letters of recommendation, at least two of which address the applicant's potential to succeed in graduate studies in communication, are also required. Finally, International students who are non-native speakers of English must obtain a TOEFL score of 600 on the paper-based test (or the equivalent score on other versions of the test) to be considered for admission. Applicants with GPAs that do not meet the admission criterion may elect to take the Graduate Record Exam (GRE) to offset these deficiencies. Contact the Graduate Program Coordinator for more information.

### Degree Requirements

The MA in Communication requires either 30 or 36 credit hours of coursework, depending on the exit project. Candidates approved for a thesis or internship will complete at least 30 semester hours of approved study, at least 21 of which must be taken in courses offered by the department. Candidates completing the non-thesis, non-internship option must complete 36 semester hours of approved study, 27 of which must be taken in courses offered by the department.

### Communication

COMM 6500 (p. 364)	Seminar In Communication Theory	3
COMM 6510 (p. 364)	Advanced Communication Research Methods I	3
COMM 6515 (p. 364)	Advanced Communicatin Research Methods II	3
COMM 6600 (p. 364)	Seminar In Organizational Communication	3
COMM 6700 (p. 364)	Seminar In Mass Communication	3

After consultation with the graduate coordinator the student selects either a 36 hour or 30 hour program and, in the latter case, develops an appropriate exit project with input from prospective committee members. The expectation for each internship varies by project and committee, but submission of an essay in which the coursework and internship experiences are integrated is typically required. Internship exit projects and theses must be approved by the student's committee and assigned a grade by the advisor. The candidate must pass an oral examination conducted by student's committee regardless of exit option selected.

Students who complete a thesis or internship must complete no less than a 3 hour internship or 6 credit hour thesis.

## Graduate Certificate: ACP Instructional Communication

The ACP Instructional Communication Certificate is designed for secondary educators interested in teaching public speaking and related courses to high school students for college credit through programs such as UMSL's Advanced Credit Program. The certificate combines practical application with theory and research to provide teachers with a grounded



approach to delivering college appropriate courses with empirical research in communication at the foundation.

Through a combination of online courses and independent studies, students can complete the ACP Communication graduate certificate without visiting campus.

Students who earn the ACP Instructional Communication graduate certificate will be eligible to teach college level courses in public speaking at the secondary level.

Requirements: Graduate Standing. To earn the ACP Communication certificate, students must complete a minimum of 18 hours. Typically, students will earn the certificate by completing the following courses in sequence<sup>1</sup>:

COMM 5000 (p. 364)	ACP - Elements of Public Speaking ([R])	3
COMM 5010 (p. 364)	ACP: Elements of Debate ([R])	3
COMM 5020 (p. 364)	ACP - Persuasion and Influence ([R])	3
COMM 5050 (p. 364)	ACP - Special Topics ([E]) <sup>2,3</sup>	3-6
COMM 5099 (p. 364)	ACP - Observation and Implementation ([R]) <sup>2</sup>	3
Total Hours		15-18

- Other 5000+ electives may be substituted based on approval and availability. Contact the Graduate Coordinator in the Department of Communication for more information.
- Pre-requisites: Students must have completed or currently be enrolled in each of the following courses: COMM 5000 (p. 364), COMM 5010 (p. 364), COMM 5020 (p. 364)
- May be repeated.

[R] Required for the certificate.

[E] Elective.

- Other 5000+ electives may be substituted based on approval and availability. Contact the Graduate Coordinator in the Department of Communication for more information.
- Pre-requisites: Students must have completed or currently be enrolled in each of the following courses: COMM 5000, COMM 5010, COMM 5020
- May be repeated.

[R] Required for the certificate.

[E] Elective.

## Sample Four Year Plan

First Year			
Fall	Hours	Spring	Hours
INTDSC 1003 <sup>1</sup>		1 Foreign Language 1002	5
COMM 1030	3	COMM 1050	3
Foreign Language 1001		5 General Education <sup>1</sup>	8
ENGL 1100	3		
MATH 1030	3		
	15		16

Second Year			
Fall	Hours	Spring	Hours
COMM 2231	3	COMM 3332	3
COMM 3330	3	COMM 2000+ level elective	3
Foreign Language 2101	3	General Education	10
General Education	6		
	15		16
Third Year			
Fall	Hours	Spring	Hours
COMM 3000+ level elective	3	COMM 2000+ level elective	6
General Education	6	General Education	9
COMM 2000+ level elective	3		
ENGL 3100	3		
	15		15
Fourth Year			
Fall	Hours	Spring	Hours
COMM 2000+ level elective	6	COMM 4950 or 4920	3
General Education	3	Elective or minor	12
2000+ elective or minor	6		
	15		15
Total Hours: 122			

<sup>1</sup> INTDSC 1003 is required only for first-time freshmen and transfer students with less than 24 college credits.

<sup>2</sup> The general education courses listed assumes the U.S. History/Government requirement is fulfilled with a Social/Behavioral Science or Humanities general education course.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.*

## Courses

### **COMM 1000 Effective Communication for College: 3 semester hours**

A communication by objective approach is used to introduce students to effective communication in a college environment. Emphasis is placed on preparing and delivering effective messages whether written or spoken, formal or informal, digital or hardcopy.

### **COMM 1030 Interpersonal Communication I: 3 semester hours**

Introduction to the theories of interpersonal communication. Emphasis on basic principles involved in one-to-one interactions.

### **COMM 1040 Introduction To Public Speaking: 3 semester hours**

Theories and techniques of organization, argumentation, persuasion and delivery in public speaking.

### **COMM 1041 Presentational Speaking: 3 semester hours**

Theories and techniques of presenting information in various contexts, formats, and settings. Emphasis is placed on strategic coordination for message effectiveness in a team-based environment.

**COMM 1050 Introduction To Mass Communication: 3 semester hours**

Introduction to oral, print, and electronic media of communication, including emerging digital formats. The course covers the major theories of mass communication effects as well as the social, organizational, economic, political, and technological factors that shape the creation and reception of mass media messages.

**COMM 1135 Communication Theory: 3 semester hours**

Survey of elements and processes critical to human communication behavior. Comparison of influential communication theories.

**COMM 1150 Introduction To Public Relations: 3 semester hours**

Publicity methods and public relations representation of profit and nonprofit institutions to the public; use of communication research and media, as applied to the public relations profession.

**COMM 1920 Applied Communication: 3 semester hours**

Prerequisites: Consent of instructor. An intermediate experience in applied communication on UMSL's campus, such as the school newspaper or radio station. Work must be done on campus, under supervision of a working professional, and in consultation with a faculty member. Repeatable, but no more than six hours of credit may be applied toward the 36-hour minimum required for the degree.

**COMM 2230 Small Group Communication: 3 semester hours**

Development of communication skills needed in small group decision-making. Application of these skills in contemporary problems.

**COMM 2231 Communication In The Organization: 3 semester hours**

Course integrates communication theories applicable to the structure and function of organizations. The effect of communication variables on departmental interface, member satisfaction and motivation, leadership and subordinate styles, and perception of the organization by the external environment.

**COMM 2232 Effective Communication In The Organization: Tools For Leadership: 3 semester hours**

This telecourse is designed to equip students with communication skills applicable to the organizational context. The course will present effective strategies for the articulation of ideas, with particular emphasis on the development of leadership skills.

**COMM 2240 Persuasive Communication: 3 semester hours**

A study of persuasive communication including theories, techniques, forms, functions, applications, potential and limitations for individual and organizations. Insights from both classical rhetoric and contemporary communication theory.

**COMM 3130 Advanced Interpersonal Communication: 3 semester hours**

Prerequisite: COMM 1030. Continuation of COMM 1030, focusing on contemporary theories and research regarding interpersonal relationships.

**COMM 3150 Crisis, Disaster, and Risk Communication: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. Course will focus on three specialized areas within public relations: communication methods and infrastructure in relation to large-scale disaster management; organizational crisis communication; and public communication regarding environmental, chemical and other public risk issues.

**COMM 3330 Research Methods In Communication I: 3 semester hours**

Introduction to the fundamental tools of quantitative research in communication. Focus of the course is on reading and comprehending communication research reports rather than conducting quantitative research.

**COMM 3332 Intercultural Communication: 3 semester hours**

Prerequisite: Junior standing or consent of the instructor. Study of culture as a variable in both interpersonal and collective communicative situations. Emphasis upon opportunities and problems arising from similarities or differences in communication patterns, processes, and codes among various cultural groups.

**COMM 3337 Male/Female Communication: 3 semester hours**

Prerequisite: Junior standing or consent of instructor. This course explores the influence of gender upon contemporary American communication behavior. Topics include semantic and syntactic variations in male and female speech, gender-role development as process and product of communication, analysis of communication patterns and barriers within gender groups. Mass, public, interpersonal, and dyadic communication contexts are considered.

**COMM 3342 Modern Rhetoric And Public Address: 3 semester hours**

Prerequisite: COMM 1040 or consent of instructor. A survey of the history and theories of persuasion and public address from the post-renaissance era to the present.

**COMM 3352 Mass Media in Society: 3 semester hours**

Prerequisites: COMM 1050. Examination and evaluation of theories and literature concerning media content and its effect on society. Topics include the evidence relating to the effect of entertainment and information media on audiences' behavior and attitudes, the factors that contribute to individual differences in responses to media content, and the ways the organizational structure of the media industries shape the type of content that is produced.

**COMM 3355 Dangerous Messages: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. This course examines how communication can be used to promote as well as inhibit societal and individual well-being. Topics include alcohol and tobacco, drugs, sexual behavior, and others pertaining to health and risky behaviors. Stereotyping, diversity in media ownership and content, hate speech, and other topics with implications for the health of citizens individually and as a people may also be covered.

**COMM 3358 Communication In Public Relations: 3 semester hours**

Prerequisites: COMM 1150. An overview of communication within the area of public relations. Emphasis on ethics, law, professional standards and written communication. Case study approach.

**COMM 3360 Media & Health Communication: 3 semester hours**

Prerequisites: COMM 1050 or consent of the instructor. Topics include health promotion and prevention campaigns and the effect of news and entertainment media on health behaviors. Examination of the theories and literature dealing with the role of mass media in health behavior.

**COMM 3361 Interpersonal Health Communication: 3 semester hours**

Prerequisites: COMM 1030 and COMM 2231, or consent of the instructor. Examination of the theories and literature dealing with the role of interpersonal and organizational communication in health behavior and health care. Special focus on patient-provider communication, social support, and cultural conceptions of illness.

**COMM 3370 Social Media in Public Relations: 3 semester hours**

Prerequisites: COMM 3358. Overview of digital and social media in contemporary public relations. Online initiatives and related strategies will also be discussed.

**COMM 3395 Special Topics In Communication: 3 semester hours**

In-depth study of topics pertaining to current research in the department. May be repeated up to six credit hours if topic is different.

**COMM 3400 Language And Behavior: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. Examination of language and behavior which includes etiological considerations, functions, meanings, perceptions, and process-interaction rules.

**COMM 3410 Nonverbal Communication: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the paralinguistic cues that accompany normal communication such as facial expression, eye behavior, gestures and body movements, accents and dialects, and the impact of touch, among others. The implications for message construction, delivery, and perception are discussed.

**COMM 3500 Dysfunctional Communication: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of some of the factors that impede effective communication. Emphasis is placed both on individual attributes such as verbal aggression and communication apprehension, as well as context-based factors found in family and romantic relationships, among others.

**COMM 3510 Communication & Conflict: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the features that contribute to effective and ineffective communication during conflicts. The course integrates communication research and theory with practical applications in negotiation and conflict resolution.

**COMM 3520 Communication Barriers I: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. A review of communication research on physical and developmental barriers that impair or impede effective communication with children. A limited number of site visits and/or off-campus experiences are required.

**COMM 3521 Communication Barriers II: 3 semester hours**

Prerequisites: COMM 3520. An extension of COMM 3520, this course focuses on effective and empathic communication with children and adults encumbered by communication barriers. A strong emphasis on high impact educational experiences is a major component of this course. Site visits and/or off-campus experiences are required.

**COMM 3600 Communication and Families: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An analysis of research and theory involving communicative attributes and phenomena unique to the family context. Communication between parent-child, siblings, and extended family members, as well as more complex family structures are addressed. Functional and effective communication techniques are also discussed.

**COMM 3610 Communication and Relationships: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the contributions of communication researchers to the study of developing and maintaining human relationships with particular focus on communication in friendships and romantic relationships.

**COMM 3700 Computer-Mediated Communication: 3 semester hours**

Prerequisites: COMM 1030, COMM 1050, junior standing or consent of the instructor. A comparison of the similarities and differences between face-to-face communication and computer-mediated communication. Synchronous and asynchronous methods of interaction are examined, as well as other characteristics unique to the digital environment.

**COMM 3800 Trends in Mass Communication: 3 semester hours**

Prerequisites: COMM 1050, junior standing or consent of the instructor. A theoretical and research-based examination of popular trends in mass communication. May be repeated once if topics are different.

**COMM 4035 Integrated Approaches-Public Relations, Advertising, & Promotion: 3 semester hours**

Prerequisites: COMM 3358 or consent of instructor. Overview of how publicity, advertising and other promotional activities can be integrated into a single cohesive communication initiative or program.

**COMM 4100 Communication Campaigns: 3 semester hours**

Prerequisite: COMM 1030, COMM 1050, COMM 1150 and junior standing or consent of the instructor. This course focuses on the design, analysis, and implementation of mass communication-based information campaigns by integrating research and theory from interpersonal, mass communication, and public relations.

**COMM 4199 Applied Public Relations: 3 semester hours**

Prerequisites: COMM 1150, COMM 3358, COMM 4035, and junior standing or consent of the instructor. This course provides students with an applied experience in public relations. The course may require on-site visits to private firms and/or the development of multi-year strategic plans.

**COMM 4900 Directed Readings: 3 semester hours**

Prerequisite: Consent of instructor. Supervised independent study focused on discipline-relevant content that expands on concepts and theories presented in communication courses. May be repeated for credit.

**COMM 4910 Supervised Research: 1-3 semester hours**

Prerequisites: Consent of instructor. Supervised field, laboratory, or survey research experience that includes activities such as data collection, literature searches, qualitative or quantitative data analysis, survey or experiment administration, and other research related activities. May be repeated with consent of department.

**COMM 4920 Practicum In Applied Communication: 1-3 semester hours**

Prerequisite: Junior standing, at least 12 hours of course work in Communication, and consent of instructor; open to Communication majors/minors. Practicum work experience with any discipline-relevant unit at UMSL including, but not limited to: the offices of students affairs, public relations, and research administration; the school newspaper or radio station; and intra-departmental activities. Work must be done on campus, under supervision of a working professional in the field, and in consultation with a faculty member. Repeatable, but no more than six hours total credit may be earned in practicum courses toward the 36-hour minimum required for the degree.

**COMM 4950 Internship In Applied Communication: 3-6 semester hours**

Prerequisites: Senior standing with at least 12 hours of course work in Communication, consent of instructor; open to communication majors only. Advanced practical work experience emphasizing communication skills with any discipline-relevant entity. Experiences may include organizational and promotional activities, mass communication, public relations, research and writing, strategic communication, or training and development. Internships are off-campus and proposed sites must be approved by the department. Work must be done under supervision of a working professional in the field, and in consultation with a faculty member. Repeatable, but not more than six hours total credit may be earned in internship courses toward the 35-hour minimum required for the degree.

**COMM 5000 ACP - Elements of Public Speaking: 3 semester hours**

Prerequisites: Graduate Standing, Special Consent. This course focuses on the delivery of theory and research based public speaking content for teachers seeking certification to teach communication courses for the Advanced Credit Program.

**COMM 5010 ACP: Elements of Debate: 3 semester hours**

Prerequisites: Graduate Standing, Special Consent. This course focuses on developing a comprehensive understanding of the theory and research typically taught in college level forensics and debate courses. Designed for teachers seeking certification to teach communication courses for the Advanced Credit Program.

**COMM 5020 ACP - Persuasion and Influence: 3 semester hours**

Prerequisites: Graduate Standing, Special Consent. This course focuses on developing a strong background in the research and theory that underlies attempts to persuade and influence others through the use of effective communication. Designed for teachers seeking certification to teach communication courses for the Advanced Credit Programs.

**COMM 5050 ACP - Special Topics: 3-6 semester hours**

Prerequisites: COMM 5000, COMM 5010, and COMM 5020, Special Consent. This rotating topic course focuses on developing knowledge of communication theory and research applicable to the context of teaching public speaking and debate. Topics may include such issues as nonverbal communication, conflict communication, and argumentation, among others. Designed for teachers seeking certification to teach in the Advanced Credit Program. May be repeated for a maximum of 6 credit hours.

**COMM 5099 ACP - Observation and Implementation: 3 semester hours**

Prerequisites: COMM 5000, COMM 5010, COMM 5020 and COMM 5050, Special Consent. Provides a capstone experience for teachers seeking to teach communication courses in the advanced credit program. While enrolled, participants will implement an ACP course in their school under the supervision of the Communication Department's advanced Credit Program Liaison.

**COMM 6500 Seminar In Communication Theory: 3 semester hours**

Prerequisite: Graduate standing. Examination of the theoretical, methodological, and philosophy of science issues in the discipline of communication. Examines general, micro, contextual, and interdisciplinary (symbiotic) communication theories. Required of all graduate communication students.

**COMM 6510 Advanced Communication Research Methods I: 3 semester hours**

Prerequisites: Graduate standing. Concerns the logic and forms of communication inquiry including an examination of various communication research and evaluation methods and their theoretical frameworks. Topics include communication research strategy and methodology, scientific process, derivation and test of hypotheses, methods of research design. Provides an orientation to graduate research including proposal development for thesis, internship and paper requirements, and includes a theory-based research project of the student's choice. Required of all graduate communication students.

**COMM 6515 Advanced Communication Research Methods II: 3 semester hours**

Prerequisite: COMM 6510 or permission of instructor. Overview of the most commonly utilized methods in quantitative data analysis statistical methods in communication with an emphasis on understanding how the statistic is reported in scholarly articles and when to use that method, rather than in the mathematical computation of the method. Topics include: descriptive statistics, single and multi-factor analysis of variance, simple and multiple linear regression, basics of nonlinear regression, analysis of categorical data, meta-analysis, and non-parametric statistical methods. Required of all graduate communication students.

**COMM 6600 Seminar In Organizational Communication: 3 semester hours**

Prerequisite: Graduate standing. Explores communication theories and topics related to organizational institutional, and social system contexts and reviews the communication literature on behavior in organizations. Emphasizes a case study approach to the communication strategies used by agencies and corporations. Required of all graduate communication students.

**COMM 6650 Seminar in Health Communication: 3 semester hours**

Prerequisites: COMM 6500, COMM 6510, and COMM 6515. This course examines the theories, from communication and related disciplines, which researchers use to investigate health communication phenomena, as well as the application of those theories to understanding and solving health-related issues. Health communication theories across contexts are examined including those specific to interpersonal communication, mass communication, and organizational communication. Course topics include health campaigns, health education, health informatics, and health media use.

**COMM 6700 Seminar In Mass Communication: 3 semester hours**

Prerequisites: Graduate Standing. Examines the communication research literature pertaining to media industries, content, and effects. A broad range of media forms and possible effects are considered.

**COMM 6750 Media Reception Processes: 3 semester hours**

Prerequisites: COMM 6510 or permission of instructor. Examines how audiences select, interpret, and respond to media messages. Students, typically in a group, are involved in developing and carrying out a research study investigating the topic.

**COMM 6810 Communication Systems and Technology: 3 semester hours**

Prerequisite: Graduate Standing Examines innovations in modern communications technologies, their impacts on individuals and society, and their implications for communication research and practice.

**COMM 6815 Persuasion and Influence in Communication: 3 semester hours**

Prerequisite: Graduate Standing. Broad-based examination of the major theories of social influence and persuasion and their practical applications.

**COMM 6830 Seminar In Special Topics In Communication: 3 semester hours**

Prerequisite: Graduate Standing. Selected topics in the study of communication. Review of the communication theory and methods appropriate to the topic. The course includes a research project. May be repeated if the topic is different.

**COMM 6900 Directed Readings In Communication: 1-6 semester hours**

Prerequisite: Graduate Standing and consent of instructor. Independent study of published research and reports relating to a specific topic in communication. May be repeated for credit with permission of advisor.

**COMM 6910 Supervised Research In Communication: 1-3 semester hours**

Prerequisites: Graduate Standing and consent of instructor. Primary research on specific topics in communication. May involve collaborative research with a faculty member on a topic of mutual interest or data collection/analysis for a project developed by the student under the guidance of a faculty member. May be repeated for credit with permission of advisor.



**COMM 6920 Practicum In Computer-Mediated Communication: 1-3 semester hours**

Prerequisites: Graduate standing and consent of program director. Applied practice or research in collaboration with a faculty member.

**COMM 6950 Graduate Internship: 3-6 semester hours**

Prerequisites: Graduate standing and approval of graduate coordinator. Individual on-site internship in organizational or mass communication. May be repeated.

**COMM 6960 Thesis Research And Preparation: 1-10 semester hours**

Prerequisites: Graduate Standing and consent of instructor. Individual research for and preparation of the graduate thesis.

## Music

### Performing Ensembles

Membership in Music Department performing ensembles (choral, orchestral, concert and pep band, jazz, chamber, etc.) is open to UMSL students in all majors and minors. Admission to most ensembles is by audition (consent of the instructor). EN PER 1400, University Chorus, is open to all university students without audition.

### General Information

#### Degrees and Areas of Concentration

The Department of Music offers programs of study leading to the B.M. degree in music education (and state teaching certification in grades K-12); the B.M. degree with an emphasis in performance; the B.M. degree with an emphasis in theory/composition; the B.M. degree with elective studies in business; and the B.A. degree in music.

Instruction in piano, organ, voice, and all band and orchestral instruments is given by full-time faculty and adjunct faculty who are also professional musicians. Some are members of the St. Louis Symphony Orchestra. Faculty recitals are regularly scheduled.

#### Music Minors

A minor in music is available.

#### Facilities

The Department's facilities, classrooms, studios, practice rooms, and listening labs are located in the Music Building. Rehearsal rooms are in the Villa. Performance spaces are in the Touhill Performing Arts Center.

#### Ensembles

Fourteen performing ensembles are open to all by audition with credit optional:

EN PER 1400	University Chorus	1
EN PER 1410	The University Singers	1
EN PER 1420	University Concert Band	1
EN PER 1500	University Orchestra	1
EN PER 1520	University Symphonic Band	1
EN PER 1530	University Wind Ensemble	1
EN PER 1541	Chamber Ensemble Brass	1
EN PER 1542	Jazz Combo	1
EN PER 1543	Chamber Ensemble Percussion	1
EN PER 1544	Chamber Ensemble Strings	1

EN PER 1545	Chamber Ensemble Voice	1
EN PER 1546	Chamber Ensemble Woodwinds	1
EN PER 1550	Jazz Ensemble	1
EN PER 1560	Opera Workshop	1

Each year more than 100 student recitals and concerts are presented.

Additional information may be obtained by contacting the Department of Music: (314) 516-5980.

### Career Outlook

A music degree builds the foundation for a career in professional performance, for teaching in a school or private studio, or for serving as a church music director. A music degree may also prepare one for positions in the music industry (recording, publishing, radio programming, manufacturing, or music retail). A trained artistic mind can also be valuable in the fields of advertising, public relations, and consumer services.

A number of UMSL music graduates have been readily accepted into outstanding graduate programs, including our own Master of Music Education degree program. Many are pursuing successful careers in music education, business, and industry, or as professional performers.

### Faculty Overview

Music faculty members have received recognition for distinguished achievements in conducting, composition, and performance. The faculty is also recognized for research in musicology, music theory, and music education. Part-time applied music lecturers are professional musicians.

The Department of Music is accredited by the National Association of Schools of Music.

## Undergraduate Studies

### General Education Requirements

General education requirements (<http://bulletin.umsll.edu/generaleducationrequirements>) apply to all majors, except that students in the B.M. with elective studies in business and B.M. in music education degree programs are not required to take a foreign language. Courses required for degree programs may not be taken on a satisfactory/unsatisfactory basis. Students must receive at least a C in each music course and maintain an overall GPA of 2.5 in all music courses to meet degree requirements.

Non-music majors may complete no more than 8 hours in music-performing organizations (EN PER 1400, University Chorus; EN PER 1410, University Singers; EN PER 1420, University Concert Band; EN PER 1500, University Orchestra; EN PER 1520, University Symphonic Band, et. seq.) toward graduation, including credit transferred. Courses in applied music (private lessons and performing organizations) do not fulfill the humanities general education requirement. M H L T 1150, Drumming Cultures of the World; M H L T 1160, Musical Journey through Latin America; M H L T 1170, Musical Journey through the Far East; or M H L T 1180, Musical Journey through Africa will meet the non-Euro-American study requirement.

### General Education Learning Outcomes for Music Students

- Students will demonstrate enhanced aesthetic appreciation and musical discrimination.

- Students will demonstrate knowledge of a wide range of world music.
- Students will demonstrate knowledge of relationships among the arts, societal influences on music and musical influences on society.

## Degree Requirements

Admission to all music degree programs is by audition and interview to demonstrate musical aptitude and potential, moderate technical proficiency, and seriousness in selecting music as a four-year course of study. In addition to the applied music audition, placement examinations in music theory and music history may be required to confirm students' prior experience in these areas. Auditions are scheduled from January to May for the fall semester; a limited number are held in December for the spring/winter semester. Students in applied music must pass a junior-standing examination to confirm their level of performance skills for enrollment in AP MUS 3440 (p. 371) – AP MUS 3459 (p. 371) or AP MUS 4440 (p. 371) – AP MUS 4459 (p. 371). This examination is usually taken at the same time as the applied music jury for the fourth semester of enrollment in AP MUS 1440 (p. 371) - AP MUS 1459 (p. 371).

Evidence of sound musicianship, a close acquaintance with an appropriate portion of musical literature, and the ability to bring it to actual performance are required for graduation in all music degree programs. Students in the bachelor of music-performance emphasis fulfill this requirement with junior and senior recitals. Those in all other degree programs must satisfy the requirement by participating in three regularly scheduled student recitals during the last two semesters of applied music study, or by performing for a special jury of faculty members. The faculty may invite students who are not in the bachelor of music-performance emphasis program to give public senior recitals with the recommendation of the applied music instructor.

Music majors are required to enroll in an approved ensemble (University Symphonic Band, University Wind Ensemble, University Singers, University Chorus, or University Orchestra) each semester, to study one applied area progressively each semester, and to enroll in the appropriate pedagogy and literature seminar each semester of the degree program. Music education majors are exempt from these requirements during the student teaching semester. The following specific ensemble enrollments, depending upon the applied music area, are required:

- Wind and percussion students—University Symphonic Band;
- string students--University Orchestra;
- voice students--University Singers (or by special permission, University Chorus);
- keyboard and guitar students--any approved ensemble, but those in the bachelor of music in music education program must successfully audition for and enroll in an ensemble compatible with the teaching certification they are pursuing.
- Instrumental students may be required to participate in additional ensembles to enhance their musical development.

Majors are required to appear in performance at the department's discretion and to attend a prescribed number of departmental recitals. Non-keyboard players are required to pass an exam in piano proficiency: PRACTM 2180 (p. 371), Piano Proficiency IV, or equivalent for instrumentalists, or PRACTM 3290 (p. 371), Piano Proficiency IV, or equivalent for vocalists.

The music department may require students to pass a placement test to enroll in the next level course, provided this or an equivalent test is administered to all students seeking to enroll in that course.

## Core Curriculum

The following core courses are required for all music majors:

<b>Music Theory</b>		
THRY COM 1300	Introduction to Music Theory (p. 371)	1
THRY COM 1301	Theory Of Music I (p. 371)	3
THRY COM 1302	Aural Training I (p. 371)	1
THRY COM 1311	Theory Of Music II (p. 371)	3
THRY COM 1312	Aural Training II (p. 371)	1
THRY COM 2301	Theory Of Music III (p. 371)	3
THRY COM 2302	Aural Training III (p. 371)	1
THRY COM 2311	Theory Of Music IV (p. 371)	3
THRY COM 2312	Aural Training IV (p. 371)	1
THRY COM 3410	Orchestration (p. 371)	3
<b>Piano Proficiency</b>		
PRACTM 1140	Piano Proficiency I (p. 371)	1
PRACTM 1150	Piano Proficiency II (p. 371)	1
PRACTM 2160	Piano Proficiency III (p. 371)	1
PRACTM 2180	Piano Proficiency IV (p. 371)	1
<b>Music History and Literature</b>		
M H L T 1010	(p. History Of Western Music I 371)	3
M H L T 1020	(p. History Of Western Music II 371)	3
Select at least one upper level history course 4000 – 4280.		3
<b>Applied Music</b>		
AP MUS 1460	(p. Seminar In Pedagogy And Literature 371)	0
AP MUS 3460	(p. Seminar In Pedagogy And Literature 371)	0
AP MUS 4460	(p. Seminar In Pedagogy And Literature 371)	0
<b>Total Hours</b>		<b>33</b>

In addition to the core curriculum, students must fulfill the requirements for the specific degree program or emphasis area as listed below:

## Learning Outcomes for All Music Degrees

- Students will demonstrate the solo and ensemble performance skills necessary to become a professional musician.
- Students will demonstrate knowledge in music theory, music history, and music literature, necessary to become a professional musician.

- Students will demonstrate the ability to speak and write clearly and effectively about music.

## Bachelor of Arts in Music

In addition to the required core curriculum, candidates must complete the following:

Select one of the following:	3
M H L T 1150 Drumming Cultures of the World (p. 371)	
M H L T 1160 Musical Journey through Latin America (p. 371)	
M H L T 1170 Musical Journey through the Far East (p. 371)	
M H L T 1180 Musical Journal Through Africa (p. 371)	
PRACTM 2510 Conducting I (p. 371)	2
PRACTM 3920 Senior Research (p. 371)	2-4
<b>Applied Area</b>	
Private lessons	8
<b>Ensemble</b>	
Ensemble (4 hours maximum credit)	4
<b>Foreign Language</b>	13
Candidates for the B.A. degree in Music are required to complete 13 credit hours or the equivalent in proficiency in one foreign language. <sup>1</sup>	13
<b>Total Hours</b>	45-47

<sup>1</sup> Please see the College of Fine Arts and Communication's Baccalaureate Degree Requirements for additional information about the foreign language requirement.

## Bachelor of Music in Music Education

In addition to the required music core curriculum, candidates must complete the following:

### Other General Education Requirements<sup>1</sup>

#### Communication Skills

Select at least two courses in English composition and one in oral communications.

#### Social Studies

Courses in American history, American government and general psychology.

#### GPA Requirement

Students enrolled in B.M. in music education must maintain minimum GPAs (2.75 cumulative; 3.00 music; and 3.00 professional education).

#### Proficiency Exam

Students working toward certification in choral/vocal or instrumental music K-12 are required to pass a keyboard proficiency examination before admission to student teaching in music, usually before or during the sixth semester of their program.

<sup>1</sup> All of the courses in the General Education Requirement Area must be a minimum of two semester hours.

### Instrumental Track

AP MUS 1410 - 3459		7
EN PER 1500 University Orchestra		4
or EN PER 1520 University Symphonic Band		
or EN PER 1530 University Wind Ensemble		
MUS ED 3570 Curriculum And Methods Of Teaching Elementary School Music <sup>1</sup>		3
MUS ED 3680 Curriculum And Methods Of Teaching Instrumental Music I <sup>1</sup>		2
MUS ED 3700 Curriculum And Methods Of Teaching Instrumental Music II <sup>1</sup>		2
PDGOGY 1250 Brass Techniques		2
PDGOGY 1260 Woodwind Techniques		2
PDGOGY 1270 String Techniques		2
PDGOGY 1280 Percussion Instrumental Techniques		2
PRACTM 2610 Instrumental Literature Laboratory		1
PRACTM 2510 Conducting I		2
PRACTM 3521 Conducting II - Instrumental		2
<b>Total Hours</b>		31

<sup>1</sup> Must be taken **in residence** before enrolling in SEC ED 4993 and SEC ED 4994.

### Vocal Track<sup>1</sup>

AP MUS 1410 - 3459		7
EN PER 1410 The University Singers		4
MUS ED 3570 Curriculum And Methods Of Teaching Elementary School Music <sup>2</sup>		3
MUS ED 3690 Curriculum and Methods of Secondary General Music <sup>2</sup>		2
MUS ED 3710 Curriculum And Methods Of Teaching Secondary Choral Music <sup>2</sup>		2
PRACTM 1250 Singer's Diction: English, Italian And German		1
PRACTM 1260 Singer's Diction: Latin, French, And Spanish		1
PRACTM 2510 Conducting I		2
PRACTM 3522 Conducting II - Choral		2
PRACTM 2611 Elementary School Choral Literature Laboratory		1
PRACTM 3621 Junior-Senior High School Choral Literature Laboratory		1
PRACTM 3190 Piano Proficiency V		1
PRACTM 3290 Piano Proficiency VI		1
THRY COM 3420 Choral Arranging		2
<b>Total Hours</b>		30

<sup>1</sup> Vocal certification students whose applied area is not voice must consult an advisor for additional courses.

<sup>2</sup> Must be taken **in residence** before enrolling in SEC ED 4993 and SEC ED 4994.

## Professional Education and Student Teaching

### Level I: Exploring Education as a Profession

TCH ED 2209 Foundations of Teaching in American Schools	3
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ED PSY 2212	Introduction To Learners And Learning	3
<b>Level II: Teaching and Learning Across Context and Clinical Experiences</b>		
TCH ED 3313	Psychology of the Exceptional Child	3
ED PSY 3312	Psychology of Learning, Instruction, and Assessment	3
TCH ED 4391	Literacy for Adolescent Learners in Content Areas	3
ED TECH 3135	Technology for Educators	1
<b>Level III: Synthesizing Theory and Practice in Education</b>		
SEC ED 4993	Practicum 2: Site Based Experience in Elementary (K-6) Music	6
SEC ED 4994	Practicum 2: Site Based Experience in Secondary (7-12) Music	6
Total Hours		28
<b>Level I Courses</b>		
TCH ED 2209	Foundations of Teaching in American Schools	3
ED PSY 2212	Introduction To Learners And Learning	3
<b>Level II Courses</b>		
TCH ED 3313	Psychology of the Exceptional Child	3
ED PSY 3312	Psychology of Learning, Instruction, and Assessment	3
ECH ED 4320	Classroom Management	3
or ELE ED 4320	Classroom Management	
or SEC ED 4320	Classroom Management	
TCH ED 4391	Literacy for Adolescent Learners in Content Areas	3
<b>Level III Courses</b>		
SEC ED 4993	Student Teaching In Music K-6	6
SEC ED 4994	Student Teaching In Music, 7-12	6
Total Hours		30

## Learning Outcomes for Music Education Students

- Students will demonstrate the solo and ensemble performance skills necessary to become a professional music educator.
- Students will demonstrate knowledge in music theory, music history, and music literature, necessary to become a professional music educator.
- Students will demonstrate pedagogical skills and knowledge of resources to become a professional music educator.
- Students will demonstrate the ability to speak and write clearly and effectively about music.

## Bachelor of Music with an Emphasis in Performance

In addition to the required music core curriculum, candidates must complete the following:

Select one of the following:	3
M H L T 1150 Drumming Cultures of the World (p. 371)	
M H L T 1160 Musical Journey through Latin America (p. 371)	
M H L T 1170 Musical Journey through the Far East (p. 371)	

M H L T 1180 Musical Journal Through Africa (p. 371)	
PDGOGY 1560 Piano Pedagogy (keyboard students only) (p. 371)	2
PRACTM 1250 Singer's Diction: English, Italian And German (voice majors only) (p. 371)	1
PRACTM 1260 Singer's Diction: Latin, French, And Spanish (voice majors only) (p. 371)	1
PRACTM 2510 Conducting I (p. 371)	2
THRY COM 3110 Analysis Of Music from 1900 to Present (p. 371)	2
THRY COM 3120 Tonal Counterpoint (p. 371)	2
PRACTM 3190 Piano Proficiency V (voice majors only) (p. 371)	1
PRACTM 3290 Piano Proficiency VI (voice majors only) (p. 371)	1
PRACTM 3521 Conducting II - Instrumental (p. 371)	2
or PRACTM 3522 Conducting II - Choral (p. 371)	
PRACTM 3920 Senior Research (p. 371)	2-4

### Music History and Literature

Select an additional upper level course M H L T 4000 (p. 371)-4280.

### Applied Area <sup>1</sup>

Applied Music, including 8 credit hours of AP MUS 4440 (p. 371)-4459 level, including required junior and senior recitals.

### Ensemble

Large Ensemble (4 hours maximum credit)	4
Chamber Ensemble/Accompanying	6

### Foreign Language

Candidates pursuing this emphasis area with an applied area in voice must complete two semesters of one foreign language selected from French, German, or Italian

Total Hours 41-43

<sup>1</sup> Students in Applied Music must pass a junior-standing exam to confirm their level of performance skills for enrollment in AP MUS 4440 (p. 371) - AP MUS 4459 (p. 371).

## Bachelor of Music: Theory/Composition

Each candidate will choose one of the following tracks:

- Composition
- Music theory

In addition to the required music core curriculum, all candidates must complete the following:

### Theory and Composition

THRY COM 3110 Analysis Of Music from 1900 to Present (p. 371)	2
THRY COM 3120 Tonal Counterpoint (p. 371)	2



THRY COM 3420 Choral Arranging 2  
(p. 371)

### Music History and Literature

An additional upper level course MHLT 4000- MHLT 4280 is required.

#### Practicum

PRACTM 2510 Conducting I 2  
(p. 371)

PRACTM 3521 Conducting II - Instrumental 2  
(p. 371)

or PRACTM 3522 Conducting II - Choral  
(p. 371)

PRACTM 3190 Piano Proficiency V 1  
(p. 371)

PRACTM 4100 Senior Project in Theory/Composition 2-4  
(p. 371)

Students following the Composition track will also take the following courses:

THRY COM 3300 Seminar In Composition (two semesters) 2  
(p. 371)

THRY COM 3310 Studio Composition 1  
(p. 371)

Students following the Music Theory track will also take the following courses:

THRY COM 3130 Advanced Analytical Techniques 2  
(p. 371)

THRY COM 3140 Readings in Music Theory 2  
(p. 371)

PRACTM 3280 Score Reading at the Keyboard 1  
(p. 371)

#### Applied Area

1 hour every semester in progress toward degree

#### Ensemble

1 hours every semester in progress toward degree

## Bachelor of Music with Elective Studies in Business

In addition to the required music core curriculum, candidates must complete the following:

#### Additional General Education Requirements <sup>1</sup>

PSYCH 1003 General Psychology 3  
or SOC 1010 Introduction To Sociology

ECON 1001 Principles Of Microeconomics 3

#### Applied Area

Applied Music 8

#### Select one of the following:

M H L T 1150 Drumming Cultures of the World 3

M H L T 1160 Musical Journey through Latin America 3

M H L T 1170 Musical Journey through the Far East 3

M H L T 1180 Musical Journal Through Africa 3

Select one additional course from MHLT 4000 – 4459.

#### Practicum

PRACTM 2510 Conducting I 2

#### Ensemble

Ensemble (4 hours maximum credit)

#### Internship

PRACTM 4920 Internship (replaces PRACTM 3920 Senior Research in Core Curriculum) 1-3

#### English

Select one of the following: 3

ENGL 3100 Junior-Level Writing

ENGL 3120 Business Writing

ENGL 3130 Technical Writing

#### Business Administration

ACCTNG 2400 Fundamentals Of Financial Accounting 3

ACCTNG 2410 Managerial Accounting 3

MGMT 3600 Management And Organizational Behavior 3

MKTG 3700 Basic Marketing 3

Select two of the following: 6

ACCTNG 3441 Income Taxes

BUS AD 3900 Business Law: Contracts, Sales, Secured Transactions, Bankruptcy

BUS AD 2900 Legal Environment Of Business

FINANCE 3500 Financial Management

INFSYS 1800 Computers And Information Systems

MGMT 3611 Advanced Management And Organizational Behavior

MGMT 3621 Human Resource Management

MGMT 3622 Industrial And Labor Relations

MKTG 3710 Consumer Behavior

Total Hours 50-52

<sup>1</sup> Prerequisites to the required business administration courses.

## Curricula for Minors

### Minor in Music

Candidates must complete the following courses (27 hours):

#### Music Theory

THRY COM 1301 Theory Of Music I 3  
(p. 371)

THRY COM 1302 Aural Training I 1  
(p. 371)

THRY COM 1311 Theory Of Music II 3  
(p. 371)

THRY COM 1312 Aural Training II 1  
(p. 371)

#### Music History and Literature

M H L T 1010 (p. History Of Western Music I 3  
371)

or M H L T 1020 History Of Western Music II  
(p. 371)

Select any M H L T course 4220-4280 3

#### Applied Area

Private Lessons 4

#### Ensemble

Ensemble (4 hours maximum credit) 2

Select six credit hours from the following: 6

PRACTM 2160 Piano Proficiency III (Prerequisite: PRACTM 1150) (p. 371)	
PRACTM 2180 Piano Proficiency IV (p. 371)	
THRY COM 233 Theory Of Music III (p. 371)	
THRY COM 2309 Aural Training III (p. 371)	
THRY COM 233 Theory Of Music IV (p. 371)	
THRY COM 2314 Aural Training IV (p. 371)	
THRY COM 34 Orchestration (p. 371)	
PDGOGY 1560 Piano Pedagogy (p. 371)	
PRACTM 2160 Piano Proficiency III (Prerequisite: PRACTM 1150) (p. 371)	
PRACTM 2180 Piano Proficiency IV (p. 371)	
THRY COM 233 Theory Of Music III (p. 371)	
THRY COM 2309 Aural Training III (p. 371)	
THRY COM 233 Theory Of Music IV (p. 371)	
THRY COM 2314 Aural Training IV (p. 371)	
THRY COM 34 Orchestration (p. 371)	
<b>Total Hours</b>	<b>26</b>

Music education methods courses and instrumental techniques courses may not be taken to complete this minor.

Non-keyboard players are required to pass an exam of piano proficiency or equivalent.

A GPA of 2.5 for all music hours is required to complete this minor.

## Minor in Jazz Studies

Candidates must complete 23 credit hours from the following:

### Music Theory

THRY COM 1300 Introduction to Music Theory (p. 371)	1
THRY COM 1301 Theory Of Music I (p. 371)	3
THRY COM 1302 Aural Training I (p. 371)	1
THRY COM 1311 Theory Of Music II (p. 371)	3
THRY COM 1312 Aural Training II (p. 371)	1

### Music History and Literature

M H L T 1070 (p. 371) Introduction To Jazz	3
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### Piano Proficiency

PRACTM 1140/1150 (p. 371) Piano Proficiency I	1
PRACTM 1150 (p. 371) Piano Proficiency II	1
<b>Applied Area</b>	<b>2</b>
2 credit hours minimum, to be selected from this group:	
PRACTM 2190 Piano Jazz (p. 371)	
PRACTM 2191 Brass Jazz (p. 371)	
PRACTM 2192 Woodwind Jazz (p. 371)	
PRACTM 2193 Rhythm Section Jazz (p. 371)	
<b>Pedagogy</b>	
PDGOGY 2220 Jazz Pedagogy (p. 371)	3
<b>Ensemble</b>	
2 credit hours of each minimum	
EN PER 1542 (p. 371) Jazz Combo	2
EN PER 1550 (p. 371) Jazz Ensemble	2
<b>Total Hours</b>	<b>23</b>

## Graduate Study

### Master of Music Education

The master of music education degree is designed to enable music specialists in grades K-12 to pursue continued professional growth in an emphasis area of their choice.

### Admission Requirements

Admission to the program requires a bachelor of music in music education (or equivalent) degree, admission to the Graduate School, and two letters of recommendation. Student should also submit a resume, a statement of purpose, and a 20 - 30 minute video of their teaching directly to the Director of the MME program.

The program requires completion of 30 hours of graduate credit, 20 of which must be earned in residence.

### Required Courses and Options:

The minimum 30-hour program includes the following requirements.

#### Music Education Core (12 credit hours)

MUS ED 5810 Foundations Of Music Education	3
MUS ED 5830 Contemporary Music Education	3
MUS ED 5910 Music Education Research	3
MUS ED 5990 Master's Project In Music Education	3

#### Music Education Electives (6 credits from following)

MUS ED 5060 Graduate Workshop In Music Education	1-5
MUS ED 5510 Graduate Instrumental Methods	3
MUS ED 5610 Graduate Choral Methods	3
MUS ED 5620 Guitar In The Classroom	3

MUS ED 5710	General Music: A Model For Multi-Faceted Learning	3
MUS ED 5840	Problems Of Urban Music Education	3
MUS ED 5920	Psychology Of Music	3
PDGOGY 5110	Graduate Jazz Pedagogy	3
PRACTM 5020	Choral Literature	3
PRACTM 5035	Instrumental Literature	3
PRACTM 5210	Graduate Conducting	3
THRY COM 5110	Scoring And Arranging	3

#### Education Electives (6 credits from the following) <sup>1</sup>

ED TECH 5301	Introduction To Computers And The Internet In Education	3
ED TECH 5340	Selection And Utilization Of Educational Multimedia	3
ED PSY 6030	Instruction, Learning And Assessment	3
ED PSY 6109	Learning And Development In Secondary School Settings	4
ED PSY 6111	Psychology Of Education	3
ED REM 6707	Classroom Measurement And Evaluation	3
ED REM 6710	Educational Research Methods and Design	3
ED REM 6716	Academic Assessment and Intervention	3
SPEC ED 6345	Characteristics and Education of Students with High-Incidence Disabilities	3
SPEC ED 6412	Psychology Of Exceptional Children	3
SEC ED 6415	Curriculum Leadership in Education	3
TCH ED 5312	Differentiated Instruction	4
TCH ED 6010	Examining History, Community And Social Justice In Education	3
TCH ED 6020	Teacher Action, Advocacy And Leadership	3

#### Free Electives (6 credits from the following) <sup>2</sup>

AP MUS 5430	Special Applied Studies <sup>3</sup>	1
AP MUS 5440	Graduate Applied Music <sup>3</sup>	1
EN PER 5310	Graduate Chamber Ensemble <sup>3</sup>	1
EN PER 5490	Graduate Ensemble <sup>3</sup>	1
MUS ED 5750	Computer Applications in Music Education	3
MUS ED 5760	Multimedia in Music Education	3
MUS ED 5770	Music Notation Software for Music Educators	3
MUS ED 5800	Musical Acoustics	3

<sup>1</sup> Other options may be available with permission of the Director of the Master of Music Education program.

<sup>2</sup> May choose from electives listed under Music Education and Education (above). Other graduate courses may be applied to degree program with written permission from the Director of the Master of Music Education program.

<sup>3</sup> May be repeated for up to 3 credits.

## Career Outlook

Many graduate students in music education will already hold full-time music teaching positions. A graduate degree in music education allows for continued professional growth. Music specialists may refine their teaching expertise, add to their understanding and knowledge about music and educational processes, become more specialized in a specific emphasis

area of music education (choral, instrumental, general music or music technology), or any combination of these professional growth areas.

Graduate-level work in music education is often required to renew a teacher's certificate or to satisfy professional growth requirements specified by an employing school or school district or to advance to new positions within the field of music education.

## Applied Music Courses

### **AP MUS 1410 Secondary Applied Music: Bassoon: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

### **AP MUS 1411 Secondary Applied Music: Clarinet: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

### **AP MUS 1412 Secondary Applied Music: Classical Guitar: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

### **AP MUS 1413 Secondary Applied Music: Euphonium: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

### **AP MUS 1414 Secondary Applied Music: Flute: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

### **AP MUS 1415 Secondary Applied Music: French Horn: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

### **AP MUS 1417 Secondary Applied Music: Oboe: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

### **AP MUS 1418 Secondary Applied Music: Organ: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

### **AP MUS 1419 Secondary Applied Music: Percussion: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1420 Secondary Applied Music: Piano: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1421 Secondary Applied Music: Saxophone: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1422 Secondary Applied Music: Trombone: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1423 Secondary Applied Music: Trumpet: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1424 Secondary Applied Music: Tuba: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1425 Secondary Applied Music: Violin: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1426 Secondary Applied Music: Viola: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1427 Secondary Applied Music: Violoncello: 1 semester hour**

Prerequisites: By Audition And Consent Of Department. Individual Instruction In Performance And Literature Of The Designated Instrument. May Be Repeated For Credit. Not Applicable To The Applied Music Requirement For Music Major Or Music Minor Degrees.

**AP MUS 1428 Secondary Applied Music: String Bass: 1 semester hour**

Prerequisites: By Audition And Consent Of Department. Individual Instruction In Performance And Literature Of The Designated Instrument. May Be Repeated For Credit. Not Applicable To The Applied Music Requirement For Music Major Or Music Minor Degrees.

**AP MUS 1429 Secondary Applied Music: Voice: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1430 Secondary Applied Music: Jazz Studies: 1 semester hour**

Prerequisite: by audition and consent of department. Individual instruction in jazz performance and literature on the designated instrument. Not applicable to the applied music requirement for music major or music minor degrees. May be repeated for credit.

**AP MUS 1440 Bassoon: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1441 Clarinet: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1442 Classical Guitar: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1443 Euphonium: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1444 Flute: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1445 French Horn: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1446 Harp: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1447 Oboe: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1448 Organ: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1449 Percussion: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1450 Piano: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1451 Saxophone: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.



**AP MUS 1452 Trombone: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1453 Trumpet: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1454 Tuba: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1455 Violin: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1456 Viola: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1457 Violoncello: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1458 String Bass: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1459 Voice: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1460 Seminar In Pedagogy And Literature: 0 semester hours**

Prerequisites: Concurrent registration with parallel Applied Music course is required. Seminars in pedagogy and literature are offered for all areas of Applied Music. May be taken on a satisfactory/unsatisfactory grading basis.

**AP MUS 3440 Bassoon: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3441 Clarinet: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3442 Classical Guitar: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3443 Euphonium: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3444 Flute: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3445 French Horn: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3446 Harp: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3447 Oboe: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3448 Organ: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3449 Percussion: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3450 Piano: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3451 Saxophone: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3452 Trombone: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3453 Trumpet: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3454 Tuba: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3455 Violin: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3456 Viola: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3457 Violoncello: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3458 String Bass: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3459 Voice: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3460 Seminar In Pedagogy And Literature: 0 semester hours**

Prerequisites: Concurrent registration with a parallel Applied Music course is required. Seminars in pedagogy and literature are offered for all areas of Applied Music. May be taken on a satisfactory/unsatisfactory basis.

**AP MUS 4440 Bassoon: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4441 Clarinet: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4442 Classical Guitar: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4443 Euphonium: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4444 Flute: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4445 French Horn: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4446 Harp: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4447 Oboe: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4448 Organ: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4449 Percussion: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4450 Piano: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4451 Saxophone: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4452 Trombone: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4453 Trumpet: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4454 Tuba: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4455 Violin: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar Music 4460.

**AP MUS 4456 Viola: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4457 Violoncello: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4458 String Bass: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4459 Voice: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4460 Seminar In Pedagogy And Literature: 0 semester hours**

Prerequisite: Concurrent registration with parallel Applied Music course is required. Seminars in pedagogy and literature are offered for all areas of Applied Music. May be taken on a satisfactory/unsatisfactory grading basis.

**AP MUS 4500 Honors Recital: 2-4 semester hours**

Prerequisites: Minimum of three semesters of applied music at the upper division level; completion of the required junior and/or senior degree recitals; permission of the applied music faculty. Preparation and public performance beyond the required degree recital(s) for undergraduate music programs. By approval of the applied music instructor, the Honors Recital may be a lecture-recital focusing on both the performance and the historical, analytical, and/or pedagogical aspects of selected literature, a public performance of a complete concerto or major solo work with orchestra or symphonic band, a major music theatre or opera role in a full production, a full chamber music recital, or other similar major performances.

**AP MUS 5430 Special Applied Studies: 1 semester hour**

Prerequisites: Graduate standing in music and consent of department. Individual instruction in the performance and literature of an applied area other than the student's primary performance study. No jury examination is required. May be repeated for credit.

**AP MUS 5440 Graduate Applied Music: 1 semester hour**

Prerequisites: Graduate standing in music and consent of department. Instruction is offered in the following areas: bassoon, clarinet, classical guitar, euphonium, flute, French horn, harp oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, violin, viola, violoncello, string bass and voice. May be repeated for credit.

**Ensemble Performance Courses****EN PER 1399 Music Ensemble Registration: 0 semester hours**

Prerequisite: Consent of Instructor Study, preparation, and performance of music ensemble literature. Concurrent registration in one or more of the following courses is required: Ensemble performance EN PER 1400, EN PER 1410, EN PER 1500, EN PER 1520, EN PER 1530, EN PER 1541, EN PER 1542, EN PER 1543, EN PER 1544, EN PER 1545, EN PER 1546, EN PER 1550, EN PER 1560, EN PER 1570, EN PER 4560, EN PER 5310, EN PER 5490.

**EN PER 1400 University Chorus: 1 semester hour**

Prerequisite: Consent of instructor. Preparation and performance of choral literature.

**EN PER 1410 The University Singers: 1 semester hour**

Prerequisite: Consent of instructor. The study and performance of music for vocal chamber ensemble.

**EN PER 1420 University Concert Band: 1 semester hour**

Prerequisites: Consent of Instructor. Study, preparation, and performance of Music for Concert Band. This course is not intended to fulfill the ensemble requirement for music majors/minors.

**EN PER 1500 University Orchestra: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation and performance of orchestral repertory.

**EN PER 1520 University Symphonic Band: 1 semester hour**

Prerequisite: Consent of instructor. Study preparation and performance of music for the winds and percussion.

**EN PER 1530 University Wind Ensemble: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation, and performance of music for winds and percussion including the preparation and performance of various chamber ensembles for woodwinds and brass.

**EN PER 1532 University Pep Band: 1 semester hour**

Prerequisites: Consent of Department/Instructor. Study, preparation, and performance of music in diverse contemporary styles. Performances of the University Pep Band are primarily in conjunction with campus activities and athletic events.

**EN PER 1541 Chamber Ensemble Brass: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1542 Jazz Combo: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation and performance of music for small ensembles.

**EN PER 1543 Chamber Ensemble Percussion: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1544 Chamber Ensemble Strings: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles: a)brass; b)jazz; c)percussion; d)string; e)voice; f)woodwinds.

**EN PER 1545 Chamber Ensemble Voice: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1546 Chamber Ensemble Woodwinds: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1550 Jazz Ensemble: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation, and performance of jazz music for big band.

**EN PER 1560 Opera Workshop: 1 semester hour**

Prerequisite: Consent of instructor. Instruction in movement, basic stage techniques, technical theater, repertory and performance techniques and preparation. May be repeated for credit.

**EN PER 2700 Seminar in Performance and Outreach: 1 semester hour**

Prerequisites: Acceptance as a music major/minor and two semesters of applied music study or by consent on instructor. Instruction in developing performance repertoire and skills for community and educational outreach programming. Student presentations of these programs in community and educational venues required. Course may be repeated.

**EN PER 4560 Advanced Opera Workshop: 1 semester hour**

Prerequisite: Consent of instructor. Instruction in movement stage technique, technical theater, repertory and performance based on advanced vocal skills. May be repeated for credit.

**EN PER 5310 Graduate Chamber Ensemble: 1 semester hour**

Prerequisites: Graduate standing in music and consent of department Study and performance of traditional and nontraditional chamber literature.

**EN PER 5490 Graduate Ensemble: 1 semester hour**

Prerequisites: Graduate standing in music or consent of department Study, preparation, and performance of ensemble literature from the choral, orchestral, or band/wind ensemble repertory. May be repeated for a total of four hours of credit.

## Music Education Courses

**MUS ED 3570 Curriculum And Methods Of Teaching Elementary School Music: 3 semester hours**

Prerequisites: THRY COM 2311 and THRY COM 2312 and Level I Education courses for the music education major. A study of the elementary school music curriculum emphasizing the objectives, methods of teaching and staffing music classes, and analysis of instructional materials and resources. This course must be completed in residence.

**MUS ED 3680 Curriculum And Methods Of Teaching Instrumental Music I: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, PRACTM 2510, PRACTM 2610, PDGOGY 1270, PDGOGY 1280. Level I Education courses. Concurrent registration in MUS ED 3570. A study of the teaching techniques, materials, curriculum, and organization of the beginning instrumental music education program. Topics include student recruitment the elementary band/orchestra, small group instruction, jazz ensemble, and marching band. This course must be completed in residence.

**MUS ED 3690 Curriculum and Methods of Secondary General Music: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, MUS ED 3570 and Level I Education courses. A study of the middle school/ junior high and high school general music program emphasizing a conceptually based curriculum: objectives, methodologies, materials, innovations, classroom organization and management. This course must be completed in residence.

**MUS ED 3700 Curriculum And Methods Of Teaching Instrumental Music II: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, PRACTM 3521, MUS ED 3570, MUS ED 3680. Level I Education courses. A continuation of MUS ED 3680. Topics include large group rehearsal techniques, program development, administrative procedures, and evaluation. This course must be completed in residence.

**MUS ED 3710 Curriculum And Methods Of Teaching Secondary Choral Music: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, MUS ED 3570. Level I Education courses. A study of the secondary school choral music program: curriculum, methods teaching techniques, organization, and administrative procedures for choral performance classes. This course must be completed in residence. Limited to music education majors.

**MUS ED 3770 An Introduction To Music For The Elementary School Teacher: 3 semester hours**

Prerequisite: None. An introduction to the elements of music and the expressive nature of music. Includes application of fundamentals to appropriate literature and activities for use with children in a classroom setting. This course will not apply toward requirements for a music major.

**MUS ED 4010 Marching Band Techniques: 3 semester hours**

Prerequisites: Junior standing or better. Techniques for organizing and training school marching bands. Content will include planning and charting shows, rehearsal problems, corps and traditional styles, and auxiliary units.

**MUS ED 4060 Advanced Workshop In Music Education: 1-5 semester hours**

Prerequisites: Junior standing and consent of instructor An intensive variable-topic workshop in Music Education presenting knowledge and skills to supplement specific areas in existing courses.

**MUS ED 5060 Graduate Workshop In Music Education: 1-5 semester hours**

Prerequisites: Graduate standing and consent of instructor Intensive workshop in Music Education. Variable topics. To gain skills and knowledge in specific areas not readily available in existing courses.

**MUS ED 5510 Graduate Instrumental Methods: 3 semester hours**

Prerequisites: Graduate standing in music Development of objectives for instrumental programs and methods of achieving those objectives. Comprehensive musicianship through instrumental performance, analysis of instrumental literature, instrumentl philosophies and methodologies, rehearsal organization, and recent research in instrumental music education will be discussed.

**MUS ED 5610 Graduate Choral Methods: 3 semester hours**

Prerequisites: Graduate standing in music Development of objectives for choral programs and methods of achieving those objectives. Comprehensive musicianship through choral performance, analysis of choral literature, the changing voice, choral philosophies and methodologies, rehearsal organization, and recent research in choral music education will be discussed.

**MUS ED 5620 Guitar In The Classroom: 3 semester hours**

Prerequisites: Graduate Standing in Music A study of guitar instruction in grades 5-12 with a focus on curricular sequence that includes chords, strums and picking patterns essential for song accompaniment skill development. Current materials, suitable for upper elementary and secondary students will be explored.

**MUS ED 5710 General Music: A Model For Multi-Faceted Learning: 3 semester hours**

Prerequisite: Graduate Standing In Music. An Exploration Of The General Music Class As A Learning Laboratory Model Designed To Actively Engage The Learner In A Series Of Comprehensive Music Learning Experiences. Emphasizes Techniques And Materials That Will Motivate The "Non-Performance Oriented" Student.

**MUS ED 5750 Computer Applications in Music Education: 3 semester hours**

Prerequisites: Graduate standing in Music. An examination of the potential of computers in the music education field. Experiences with available hardware and software suitable for applications that include inventory, budget, music library cataloging, digital music synthesis, digital music recording and editing, music-related graphics and basic animation with music soundtracks.



**MUS ED 5760 Multimedia in Music Education: 3 semester hours**

Prerequisites: Graduate standing in Music. The development and use of interactive instructional multi-media materials for K-12 or collegiate settings. Platforms used will include presentation software and interactive whiteboard software/hardware.

**MUS ED 5770 Music Notation Software for Music Educators: 3 semester hours**

Prerequisite: Graduate standing in music. The in-depth study of a complex music notation program. The course will include various modes of notation entry, playback, music formatting and printing, MIDI-related and graphic-related functions, and the creation of music performance accompaniment and assessment files.

**MUS ED 5800 Musical Acoustics: 3 semester hours**

Prerequisite: Graduate standing in music. The acoustical properties of the human voice, acoustic and electronic musical instruments, rehearsal rooms and performance spaces. Applications for musicians/teachers in the choice, design and acoustical treatment of rehearsal/performance space, requirements and techniques for quality music recordings and the use of acoustic principles in the design of original classroom musical instruments.

**MUS ED 5810 Foundations Of Music Education: 3 semester hours**

Prerequisite: Graduate standing in music. A study of the historical, philosophical, and psychological foundations of music education, includes principles necessary for development, implementation, and evaluation of total school music program.

**MUS ED 5830 Contemporary Music Education: 3 semester hours**

Prerequisite: Graduate Standing In Music. A Study Of Recent Trends And Issues In Music Education.

**MUS ED 5840 Problems Of Urban Music Education: 3 semester hours**

Prerequisite: Graduate standing in music. An analysis of current practices, problems, trends, and research involved in developing strategies for the improvement of music programs in inner-city schools.

**MUS ED 5910 Music Education Research: 3 semester hours**

Prerequisite: Graduate standing in music. Applications of various approaches in defining and analyzing research problems in music education. Historical, experimental, descriptive, and philosophical research will be included.

**MUS ED 5920 Psychology Of Music: 3 semester hours**

Prerequisite: MUS ED 5810 and MUS ED 5910. Identify and discuss important trends within the field of psychology of music focusing specifically on applying Cognitive Psychology to music learning, perception, and performance.

**MUS ED 5950 Special Problems In Music Education: 1-3 semester hours**

Prerequisite: Graduate Standing In Music. Selected Problems To Meet The Needs Of the Individual Student.

**MUS ED 5990 Master's Project In Music Education: 3 semester hours**

Prerequisite: Graduate standing in music. A project utilizing historical, experimental, philosophical, descriptive, or analytical research techniques. The project will include a written report.

**Music History Courses****M H L T 1001 Introduction To Music: 3 semester hours**

An historically oriented study of art music, its styles and forms from the Baroque period to the present day. This course will not apply toward requirements for a music major.

**M H L T 1010 History Of Western Music I: 3 semester hours**

Prerequisite: THRY COM 1301/ THRY COM 1302 or consent of department. A general survey of the history of western music. Includes the evolution and development of styles, forms and their social setting. This course meets the General Education requirement for Humanities and Fine Arts Knowledge and Valuing Skills.

**M H L T 1020 History Of Western Music II: 3 semester hours**

Prerequisite: THRY COM 1301/THRY COM 1302 or consent of department. A continuation of M H L T 1010. This course meets the General Education requirements for the Humanities and Fine Arts Knowledge and Valuing Skills.

**M H L T 1060 Introduction To African-American Music: 3 semester hours**

This course will survey African-American musical heritage from its African origins through its role and development in twentieth century American Society. All genres will be discussed, including African-American composers who wrote in the European tradition. This course will not apply toward requirements for music major or minor.

**M H L T 1070 Introduction To Jazz: 3 semester hours**

A survey course which examines the musical, historical and social aspects of the subject. This course will not count toward requirements for a music major.

**M H L T 1080 Introduction To Irish Traditional Music: 3 semester hours**

Will survey the rich tapestry of Irish traditional music, song and dance. Particular attention will be given to the cultural history of the traditional music maker in Irish society, as well as among the constituent communities of the Irish diaspora in Europe and North America. Will introduce students to the instruments, performance settings and regional styles of Irish traditional music. Using field recordings and archive materials collected in Ireland and North America, will focus on celebrated folk performers of the past and present, and evaluate the impact of contemporary media on their ancient, yet evolving, musical genre. No prior experience of Irish traditional music is necessary to pursue this course.

**M H L T 1090 Non-Western Music I: 3 semester hours**

The music of Oceania; folk and classical music and dance of East Asia, Tibet and Southeast Asia, the influence of Buddhism, Islam and western acculturation on the functions of music in these societies.

**M H L T 1120 The American Musical Film: 3 semester hours**

This course is a survey of the American film genre. Emphasis on themes, conventions, audience relationships, cultural values, and the synthesis of film form, music and dance. Examination of films such as Top Hat, West Side Story, Chicago, An American in Paris.

**M H L T 1130 Introduction to Music Theatre: 3 semester hours**

A study of music theatre as an art form emphasizing the contributions of the playwright, composer, lyricist, actor, musician, dancer, choreographer, director, designer, and technicians. Major stylistic periods and dramatic forms will be covered. Students will learn about how music theatre functions as an art and an industry in today's world. Attendance at live theatrical performances and/or rehearsals will be required.

**M H L T 1140 Popular Music in America: 3 semester hours**

This course is designed as a survey of major genres of American popular music - Tin Pan Alley, musical theater, ragtime, blues, early and more popular phases of jazz, country, rock, pop, hip-hop, rap, etc. Included will be a broad spectrum of cultural and historical contexts, insight into the development of the music industry, study of significant artists, and understandings of the formal and stylistic components of the music.

**M H L T 1150 Drumming Cultures of the World: 3 semester hours**

Drumming is one of the oldest forms of expression in the world and is prevalent on every continent. This course is designed as a survey of drumming throughout the world and the significance to the cultures therein. Included will be a broad spectrum of cultural and historical contexts, performance practices and hands on instruction. The major focus in this course will be the drumming practices of Africa, Asia, South America and the Caribbean. This course satisfies the cultural diversity requirement for the University.

**M H L T 1160 Musical Journey through Latin America: 3 semester hours**

Explore the diversity of this contagious music of the past and present, from the tango of Argentina, to salsa and meringue of the Caribbean, and from huayno of Amerindian cultures, to the marimba of Middle Latin America! This introduction to musical cultures of Latin America reveals the rich and wide range of musical forms, instruments, and styles that has influenced music on almost all parts of the globe today.

**M H L T 1170 Musical Journey through the Far East: 3 semester hours**

This class will explore the musical traditions and instruments of the countries of East Asia - China, Japan, and Korea. Much of the legendary founding of music and musical instruments originated on the Asian continent and transplanted along the Silk Road (trade routes from India, Persia and the Mediterranean) to the Far East. We will examine some of the world's most amazing sounds of the Orient.

**M H L T 1180 Musical Journal Through Africa: 3 semester hours**

This introduction to musical cultures of Africa provides a snapshot of African music south of the Sahara, or sub-Saharan Africa. We will explore the extraordinary rich and diverse musical traditions through the sounds and rhythms of its people. Highlights of the course include the introduction to a wide range of authentic musical instruments from Africa.

**M H L T 1190 Musical Journey of the Native North American: 3 semester hours**

This introduction to musical cultures of the Native American provides a snapshot of the aboriginal and modern day Native American in North America. We will explore the extraordinary rich and diverse musical traditions through the sounds and cultural practices of its people. Highlights of the course include the introduction to a wide range of authentic musical instruments of the Native American.

**M H L T 4000 Directed Studies: 1-5 semester hours**

Prerequisites: Consent of Instructor. Directed independent study of selected topics in music. May be repeated, but no more than 5 hours may be applied toward a degree.

**M H L T 4220 Music Of The Renaissance: 3 semester hours**

Prerequisite: M H L T 1010 or consent of department. A study of the theoretical and practical impact of humanism on music, musicians, and musical thought from 1450 to 1600. Sacred and secular music; the rise of an instrumental idiom.

**M H L T 4230 Music Of The Baroque: 3 semester hours**

Prerequisite: M H L T 1010 or consent of department. A detailed study of music from 1600 to 1750. The rise of the new style, national styles in the seventeenth century and the culmination of the Baroque period.

**M H L T 4240 Music Of The Classic Period: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department. A study of the growth of classical style; Galant and expressive styles; Mozart, Haydn and Beethoven.

**M H L T 4250 Music Of The Romantic Period: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department. Composers, forms and styles in nineteenth century music. The literary and social background of musical romanticism.

**M H L T 4260 Music from 1900 to the Present: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department. A detailed study of trends in modern music and of influential composers; impressionism, serial composition, electronic music and other recent techniques.

**M H L T 4270 A History Of Byzantine Music And Hymnography: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department A study of the liturgical and secular music of the Byzantine Empire and post-Byzantine period during the Ottoman occupation; a historical investigation of the Oriental and Ancient Greek origins of the music along with an evolution of the types of music and poetical forms. A study of the types of notation and transcription analyses from the Medieval neumes into Western staff notation is included.

**M H L T 4280 American Music: 3 semester hours**

Prerequisites: M H L T 1010 or M H L T 1020 or consent of department. A study of the history and literature of American music, its composers, performers and influences on American and world culture. Compositions studied include classical compositions from the colonial era through contemporary times as well as literature from the gospel, blues, jazz and popular music genres.

## Music: Pedagogy Courses

**PDGOGY 1250 Brass Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all brass instruments including trumpet, horn, trombone, euphonium, and tuba in the school setting.

**PDGOGY 1260 Woodwind Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all woodwind instruments including flute, clarinet, oboe, bassoon, and saxophone in the school setting.

**PDGOGY 1270 String Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all string instruments including violin, viola, cello, and bass in the school setting.

**PDGOGY 1280 Percussion Instrumental Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all percussion instruments including snare drum, tom-tom, bass drum, cymbals, drumset, timpani, mallet instruments and miscellaneous percussion instruments in the school setting.

**PDGOGY 1560 Piano Pedagogy: 2 semester hours**

Prerequisite: Equivalent of AP MUS 1361 or permission of instructor. A study of methods, repertoire, and technical problems pertaining to private studio teaching for all levels of performance ability.

**PDGOGY 2220 Jazz Pedagogy: 3 semester hours**

Students will participate in interactive sessions that will “boost the jazz teaching chops” whether students are seasoned teachers or novices in the field of jazz education. A wide range of jazz teaching methods will be studied, including those that have been successful in the instructor’s nationally recognized jazz camps. Lab groups will be formed for “hands on-minds on” teaching and learning. Students will experience jazz teaching techniques, examine jazz method series, listen to a variety of jazz styles, and examine and perform jazz literature from different styles.

**PDGOGY 4000 Directed Study: Variable Topic: 1-5 semester hours**

Prerequisites: Consent of Instructor. Directed independent study of selected topics in music. May be repeated, but no more than 5 hours may be applied toward a degree.

**PDGOGY 5110 Graduate Jazz Pedagogy: 3 semester hours**

Students will participate in interactive sessions that will dramatically strengthen jazz teaching strategies, introduce new jazz rehearsal techniques, and examine the best in jazz education literature and materials. A wide range of jazz-teaching methods will be studied, including those that have been successful in the instructor’s nationally recognized jazz camps. Lab groups will be formed for “hands on-minds on” teaching and learning. Students will experience jazz teaching techniques, examine jazz method series, listen to a variety of jazz styles and examine and perform jazz literature from different styles. The course is for students who are seasoned teachers or novices in the field of jazz education. Student will complete a research paper or a big band arrangement.

**Music: Practicum Courses****RACTM 1140 Piano Proficiency I: 1 semester hour**

Prerequisite: Permission of department Group instruction for music majors who do not meet beginning keyboard requirements.

**RACTM 1150 Piano Proficiency II: 1 semester hour**

Prerequisite: PRACTM 1140 or Consent of Department. Group instruction for music majors who do not meet beginning keyboard requirements.

**RACTM 1250 Singer’s Diction: English, Italian And German: 1 semester hour**

Prerequisites: Music 44 or Music 124 A study of English, Italian and German pronunciation using the International Phonetic Alphabet.

**RACTM 1260 Singer’s Diction: Latin, French, And Spanish: 1 semester hour**

Prerequisites: Music 44 or Music 124 A study of Latin, French, and Spanish pronunciation using the International Phonetic Alphabet.

**RACTM 1530 Accompanying I: 1 semester hour**

Prerequisite: Consent of department. Accompanying and ensemble practices, including rehearsal techniques, for keyboard majors. Public performance of works studied is required.

**RACTM 1540 Accompanying II: 1 semester hour**

Prerequisite: Consent of department. A continuation of PRACTM 1530.

**RACTM 1550 Accompanying III: 1 semester hour**

Prerequisite: Consent of Department. A continuation of PRACTM 1540.

**RACTM 1570 Piano Performance Class: 2 semester hours**

Prerequisites: Two semesters of AP MUS 1450: Piano. This class allows for additional study of repertoire, giving students greater opportunities to perform and receive critiques from instructor, adjudicators, and peers. Course may be repeated for credit.

**RACTM 2160 Piano Proficiency III: 1 semester hour**

Prerequisite: PRACTM 1150 or permission of department. Continuation of piano proficiency study.

**RACTM 2170 Jazz Keyboard Harmony: 1 semester hour**

Prerequisite: Prerequisites: PRACTM 1150 or consent of dept. Group keyboard instruction in the application of chordal structures and harmonic functions commonly used in mainstream jazz performance.

**RACTM 2180 Piano Proficiency IV: 1 semester hour**

Prerequisite: PRACTM 2160 or consent of department. Continuation of piano proficiency study.

**RACTM 2190 Piano Jazz: 1 semester hour**

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registrations in Jazz Ensemble (by audition) or Jazz Combo required.

**RACTM 2191 Brass Jazz: 1 semester hour**

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registration in Jazz Ensemble (by audition) or Jazz Combo required.

**RACTM 2192 Woodwind Jazz: 1 semester hour**

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registration in Jazz Ensemble (by audition) or Jazz Combo required.

**RACTM 2193 Rhythm Section Jazz: 1 semester hour**

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registration in Jazz Ensemble (by audition) or Jazz Combo required.

**RACTM 2510 Conducting I: 2 semester hours**

Prerequisite: THRY COM 2301. Concurrent registration in PRACTM 2610 required for Bachelor of Music in Music Education program. Techniques and problems in conducting.

**RACTM 2610 Instrumental Literature Laboratory: 1 semester hour**

Prerequisites: THRY COM 2301 and THRY COM 2302 Analysis and evaluation of selected instructional and concert materials for elementary, junior and senior high school groups.

**RACTM 2611 Elementary School Choral Literature Laboratory: 1 semester hour**

Prerequisites: THRY COM 2301 and THRY COM 2302. Active conducting experience while analyzing and evaluating selected instructional and concert materials for elementary grades.

**RACTM 3190 Piano Proficiency V: 1 semester hour**

Prerequisite: PRACTM 2180 or consent of department. Continuation of piano proficiency study.

**RACTM 3280 Score Reading at the Keyboard: 1 semester hour**

Prerequisites: PRACTM 3190, or consent of department. Practical experience in the keyboard realization of figured bass and score reading with emphasis on C-clefs, transposition, and modulation.

**RACTM 3290 Piano Proficiency VI: 1 semester hour**

Prerequisite: PRACTM 3190 or consent of department. Continuation of piano proficiency study.

**RACTM 3521 Conducting II - Instrumental: 2 semester hours**

Prerequisite: PRACTM 2510. Advanced study of instrumental conducting and rehearsal techniques, score reading and interpretation.



**PRACTM 3522 Conducting II - Choral: 2 semester hours**

Prerequisite: PRACTM 2510 Concurrent registration in PRACTM 3620 required for Bachelor of Music in Music Education program. Advanced study of choral conducting and rehearsal techniques, score reading and interpretation.

**PRACTM 3621 Junior-Senior High School Choral Literature Laboratory: 1 semester hour**

Prerequisites: THRY COM 2311 and THRY COM 2312 Analysis and evaluation of selected instructional and concert materials for junior and senior high school performance groups.

**PRACTM 3920 Senior Research: 2-4 semester hours**

Prerequisite: Consent of department. Required of all senior music majors. Directed readings and research in an area mutually acceptable to the student and instructor.

**PRACTM 4000 Directed Studies: Variable Topic: 1-5 semester hours**

Prerequisites: Consent of department. Directed independent study of selected topics in music. May be repeated, if topic is substantially different, but no more than 5 hours may be applied toward a degree.

**PRACTM 4100 Senior Project in Theory/Composition: 2-4 semester hours**

Prerequisites: Consent of department. Required of all students in the BM in Theory/Composition program. This project could take any number of forms, dependent upon mutual agreement between student and instructor. For example, a student with a focus in music theory would write a thesis of substantial depth on a theoretical/analytical topic, and a student with a focus in composition would either write a large-scale work (for orchestra, wind ensemble, etc.) or prepare and lead a recital of several of his or her own compositions.

**PRACTM 4920 Internship: 1-3 semester hours**

Prerequisite: Senior standing in B.M. Business emphasis and permission of the instructor. Supervised experience in the area of the student's career objective, as music or instrument merchandising, arts management, mass communication, publishing, manufacturing or other, as available. May be repeated once for credit in different area.

**PRACTM 5020 Choral Literature: 3 semester hours**

Prerequisite: Graduate Standing In Music. Study Of Choral Literature Appropriate For Ensembles From Elementary To Senior High School. Criteria For Evaluating Choral Literature Will Be Developed And Pedagogical Implications Of Choral Music As A Means Of Developing Comprehensive Musicianship Will Be Discussed.

**PRACTM 5035 Instrumental Literature: 3 semester hours**

Prerequisite: Graduate standing in Music Study of literature appropriate for soloists and ensembles for elementary to senior high school band, orchestra, and jazz ensemble. Criteria for evaluating the literature will be developed and related technical problems will be studied.

**PRACTM 5210 Graduate Conducting: 3 semester hours**

Prerequisites: Graduate standing in music Conducting techniques, score reading, and interpretation of choral, orchestral, and band literature.

## Theory and Composition Courses

**THRY COM 1190 Fundamentals Of Music: 3 semester hours**

This course provides basic music vocabulary: scales, intervals, and chords, and systematic instruction in the melodic, rhythmic, and harmonic aspects of music. This course will not apply toward requirements for a music major.

**THRY COM 1300 Introduction to Music Theory: 1 semester hour**

This course introduces the basic vocabulary of music notation and theory and rudimentary skills of ear training and sight singing. This course must be taken concurrently with THRY COM 1301, but may be waived on the basis of a successful score on the Theory Placement Exam.

**THRY COM 1301 Theory Of Music I: 3 semester hours**

Prerequisite: Consent of department. This course introduces the basic materials of music as well as species counterpoint and diatonic harmony. Concurrent registration in THRY COM 1300 is required unless waived on the basis of a successful score on the Theory Placement Exam. Concurrent registration in THRY COM 1302 is required for music majors and minors.

**THRY COM 1302 Aural Training I: 1 semester hour**

Prerequisite: Consent Of Department. Systematic instruction in ear training and sight singing of all material covered in THRY COM 1301. Includes diatonic melodic and rhythmic dictation, chord quality recognition, sight singing of diatonic melodies, and the reading of units and divisions of units in simple and compound meters. Concurrent registration in THRY COM 1301 is required for music majors and minors.

**THRY COM 1311 Theory Of Music II: 3 semester hours**

PREREQUISITE: THRY COM 1300, THRY COM 1301, and THRY COM 1302 or consent of department. This course continues the study of diatonic harmony begun in THRY COM 1301. Harmonic function, phrase structure, harmonic sequences, secondary dominants, and simple modulation. Concurrent registration in THRY COM 1312 is required for music majors and minors.

**THRY COM 1312 Aural Training II: 1 semester hour**

Prerequisite: THRY COM 1301 and THRY COM 1302 or consent of department. The systematic instruction in ear training and sight singing begun in THRY COM 1302 is continued. This course provides instruction in the performance and aural recognition of all musical devices introduced in THRY COM 1311. Concurrent registration in THRY COM 1311 is required for music majors and minors.

**THRY COM 2301 Theory Of Music III: 3 semester hours**

Prerequisite: THRY COM 1311 and THRY COM 1312 or consent of department. This course begins the study of chromatic harmony and form in music of the eighteenth and nineteenth centuries. Concurrent registration in THRY COM 2302 is required for music majors and minors.

**THRY COM 2302 Aural Training III: 1 semester hour**

Prerequisite: THRY COM 1311 and THRY COM 1312 or consent of department. Systematic instruction in ear training and sight singing of THRY COM 1312 is continued. This course provides instruction in the performance and aural recognition of all musical devices introduced in THRY COM 2301. Concurrent registration in THRY COM 2301 is required for music majors and minors.

**THRY COM 2311 Theory Of Music IV: 3 semester hours**

Prerequisites: THRY COM 2301 and THRY COM 2302 or consent of department. This course continues the study of chromatic harmony of late nineteenth-century music, as well as the analysis of larger musical forms. Additionally, this course focuses on developing the ability to communicate analytical observations effectively in both written and spoken formats. Concurrent enrollment in THRY COM 2312 is required for all music majors and minors.



**THRY COM 2312 Aural Training IV: 1 semester hour**

Prerequisite: THRY COM 2301 and THRY COM 2302 or consent of department. The systematic instruction in ear training and sight singing of THRY COM 2302 is continued. This course provides instruction in the performance and aural recognition of all musical devices introduced in THRY COM 2311. Concurrent enrollment in THRY COM 2311 is required for all music majors and minors.

**THRY COM 3110 Analysis Of Music from 1900 to Present: 2 semester hours**

Prerequisite: THRY COM 2311 / THRY COM 2312 or consent of department. This course primarily provides a study of compositional devices in atonal and serial music since 1900.

**THRY COM 3120 Tonal Counterpoint: 2 semester hours**

Prerequisite: Music 112 or consent of department. Study of tonal counterpoint with emphasis on the eighteenth century style. Composition in two and three parts.

**THRY COM 3130 Advanced Analytical Techniques: 2 semester hours**

Prerequisites: THRY COM 2311/THRY COM 2312. Close analysis, seminar discussion, and focused theoretical/analytical study of selected compositions. Repertoire studied changes from year to year at discretion of instructor.

**THRY COM 3140 Readings in Music Theory: 2 semester hours**

Prerequisites: THRY COM 2311 and THRY COM 2312. An introduction to the primary areas of research in the field of music theory. This seminar-style course will include readings and discussion of a number of important writings in music theoretical areas including, but not limited to the following: tonal theory, post-tonal theory, mathematics and music, music cognition, and the history of music theory.

**THRY COM 3300 Seminar In Composition: 2 semester hours**

Prerequisite: THRY COM 3110 or consent of instructor. The study of composition in theory and practice.

**THRY COM 3310 Studio Composition: 1 semester hour**

Prerequisites: THRY COM 2311 and THRY COM 2312, or consent of department. Individual lessons in music composition. Course may be repeated for credit.

**THRY COM 3410 Orchestration: 3 semester hours**

Prerequisite: THRY COM 2311 or consent of instructor. Study of the instruments of the brass, woodwind, percussion, and string families; scoring, transcription, and arranging for various instrumental ensembles.

**THRY COM 3420 Choral Arranging: 2 semester hours**

Prerequisites: THRY COM 2311 or consent of department. Study of vocal ranges, characteristics and capabilities at various ages and scoring for choral ensembles comprised of singers in these varying stages of vocal development.

**THRY COM 4000 Directed Studies: Variable Topic: 1-5 semester hours**

Prerequisites: Consent of Instructor. Directed independent study of selected topics in music. May be repeated, but no more than 5 hours may be applied toward a degree.

**THRY COM 5110 Scoring And Arranging: 3 semester hours**

Prerequisite: Graduate Standing In Music. Experience In Scoring And Arranging Music For A Variety Of Ensembles.

# College of Nursing

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## General Information

The College of Nursing offers academic nursing programs at the undergraduate and graduate levels. Knowledge and skills needed to complete the professional licensure examination to become a registered nurse are available through the traditional baccalaureate option. A part-time, evening and weekend scheduling option is available, as is an accelerated option for students with degrees in other fields or who meet the admission criteria for this intensive option. Nurses who have obtained their basic nursing education through associate degree or diploma nursing programs may fulfill the requirements for the BSN completion option without repetition of previous nursing education. The Master of Science in nursing program offers areas of emphasis in the roles of nurse educator and advanced practice nursing. The Ph.D. program in Nursing is offered in cooperation with the schools of nursing at the University of Missouri-Columbia and the University of Missouri-Kansas City. Admission to the Ph.D. program is available at the post BSN and MSN levels. The Doctor of Nursing Practice program also is offered in cooperation with the schools of nursing at the University of Missouri-Columbia and the University of Missouri-Kansas City, and prepares students for the highest level of advanced clinical nursing practice.

## International Students

All students with International or Permanent Resident status are required to complete an English as a second language (ESL) assessment with the UMSL ESL office. Based upon this assessment students may be required to complete recommended ESL courses before enrolling in nursing courses.

## Continuing Education-Extension and Outreach

Both credit and noncredit continuing education offerings in nursing are presented to provide nurses with new information, techniques, and trends within the nursing profession. Some of these offerings are in outreach sites as part of the college's commitment to working in collaboration with community partners to provide higher education for nurses.

## Professional Organizations

### Sigma Theta Tau International Honor Society for Nursing

Nu Chi is the College of Nursing's official chapter of Sigma Theta Tau International Honor Society. Membership is offered by invitation to nursing students in the upper third of their class and to nurses recognized as outstanding community nursing leaders.

### Student Nurses' Association

The College of Nursing is a constituent of the National Student Nurses' Association. The purpose of the organization is to provide baccalaureate students an opportunity to connect with the nursing profession through service and professional development activities. The organization is open to all nursing majors and clinical nursing majors.

### Minority Student Nurses' Association

The College of Nursing is a constituent of the Black Student Nurses' Association. The purpose of this organization is to provide black nursing

students in the prelicensure baccalaureate program the opportunity to serve as a support group for African-American students, collaborate with other African-American groups to compile archives relevant to African-American nurses, and to promote participation in interdisciplinary activities.

## Undergraduate Study

### Undergraduate Studies

The College of Nursing provides coursework leading to the Bachelor of Science in nursing (BSN). The program is accredited by the Commission on Collegiate Nursing Education and the pre-licensure tracks are fully approved by the Missouri State Board of Nursing. The undergraduate program offers two means for achieving the bachelor's degree in nursing: studies that are preparatory for completion of the professional nurse licensure examination (pre-licensure track) and advanced placement for the professional registered nurse without repetition of fundamental nursing and clinical courses (RN to BSN track). An accelerated pre-licensure option is available for qualified persons who hold earned degrees in non-nursing fields, or outstanding students who have completed all prescribed general education and science course work. The traditional (non-accelerated) BSN pre-licensure option can be completed on a full-time basis or through a part-time evening/weekend program. Students must meet university and College of Nursing requirements. Baccalaureate students meeting admission criteria may participate in the Pierre Laclède Honors College. **Students who have been dismissed from another nursing program are not eligible for admission to the pre-licensure BSN program.**

Faculty maintain the right to make appropriate curriculum changes to comply with standards for accreditation and approval as stipulated by the Commission on Collegiate Nursing Education and the Missouri State Board of Nursing's minimum standards. For that reason, students receive exceptional advising support from college advisors.

### Degree Requirements for B.S.N.

The Bachelor of Science in nursing degree requires comprehensive course work in general education and nursing. Basic undergraduate nursing course work includes theory, on-campus laboratory and clinical activities. Clinical experiences require weekday, evening, and/or weekend commitments. Full-time study in the pre-licensure baccalaureate track can be completed in four academic years. Part-time study is available with nursing classes in the evenings and clinical hours during the week or on weekends. The nursing clinical curriculum can be completed in ten semesters following completion of general education courses. The pre-licensure accelerated track requires full-time study and can be completed in 15 months. The RN to BSN track is offered at selected metropolitan sites, on-campus, and by Internet. Clinical activities in the RN to BSN Program are community-based and may be completed in the student's home community.

Upon completion of the BSN program, students are expected to have achieved the following learning outcomes:

- Integrate into practice theories and evidence-based concepts from nursing, the arts, sciences, and humanities to provide comprehensive nursing care in a variety of settings.
- Integrate clinical reasoning and problem solving in professional practice.

- Administer culturally competent, compassionate, holistic care to promote healthy outcomes for diverse individuals, families, communities, and populations during all life phases.
- Use evidence-based practices to promote health, manage illness, and prevent injury among individuals, families, communities, and populations.
- Utilize communication skills to enhance relationships with patients and families and collaboration among members of the health care team.
- Assume responsibility and accountability for decisions and actions based on professional intrapersonal values, ethical and legal obligations, standards of practice, social justice, and economics.
- Integrate principles of health education, management, leadership, quality care, and patient safety when organizing, coordinating, and engaging in professional practice.
- Demonstrate knowledge of health care policies and finance in a regulatory environment and their influence on health care access and quality.
- Exhibit motivation and self-direction in activities that contribute to lifelong personal, professional, and intellectual development.
- Utilize health care technology and information management systems to promote quality care and patient safety.

## Satisfactory/Unsatisfactory (Pass/Fail) Grading

Undergraduate nursing majors may not take required prerequisite general education or nursing courses on a satisfactory/unsatisfactory basis.

## Undergraduate Degree Requirements

### General Education Requirements

Nursing majors must complete all general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>) of the university as outlined in this Bulletin.

In addition to meeting the university's general education requirements, the following prerequisite courses must be completed prior to beginning the clinical major. See a curriculum planning guide for specific courses and proper sequencing.

#### 1) Natural science course work

BIOL 1131	Human Physiology And Anatomy I	4
BIOL 1141	Human Physiology And Anatomy II	4
BIOL 1162	General Microbiology	3
CHEM 1052	Chemistry For The Health Professions (or equivalent)	4

#### 2) Behavioral and social science course work

PSYCH 1003	General Psychology	3
PSYCH 1268	Human Growth And Development	3
ECON 1000	Introduction To The American Economy (or equivalent)	3

Social science elective

#### 3) Humanities

Any Philosophy course (as part of the University's 3 humanities requirement)

#### 4) Nursing

NURSE 2103	Nutrition And Health (or equivalent)	3
NURSE 2105	Communication In The Nursing Profession	3

NURSE 3799	Quantitive Analysis In The Health Sciences (or equivalent)	3
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#### Nursing Course Work Requirements

PRE-LICENSURE - 4 year traditional and part-time evening and weekend options		
NURSE 2101	Introduction to Nursing	2
NURSE 3101	Nursing And Health <sup>1</sup>	6
NURSE 3106	Assessment Of Clients In Health And Illness <sup>1</sup>	4
NURSE 3110	Pathophysiological Bases Of Nursing Practice	3
NURSE 3111	Pharmacotherapeutics In Nursing Practice	3
NURSE 3205	Adult Health Nursing I <sup>1</sup>	5
NURSE 3206	Adult Health Nursing II <sup>1</sup>	5
NURSE 3214	<sup>1</sup>	4
NURSE 3215	Nursing Of Women And Childbearing Families <sup>1</sup>	4
NURSE 3216	Child And Family Health Nursing <sup>1</sup>	4
NURSE 3804	Ethical And Legal Dimensions Of Nursing Practice	3
NURSE 3807	Nursing Research - Evidence Based Nursing Practice	3
NURSE 3808	Management And Leadership In Nursing	2-3
NURSE 3817	Introduction To Nursing And Health Informatics	3
NURSE 4300	Community Health Nursing <sup>1</sup>	4
NURSE 4310	Senior Synthesis <sup>1</sup>	5

Nursing elective (required for 4 year traditional track students thorough Spring 2014 graduating cohort)

Total Hours 93-94

<sup>1</sup> Includes a laboratory and/or clinical component

Students are required to furnish their own transportation to and from campus and clinical agencies. Students must have automobile access for all community experiences through the program. Students are required to complete standardized assessment exams throughout the program and at completion as part of the program evaluation.

## Traditional BSN Program

The College of Nursing provides coursework leading to the Bachelor of Science in Nursing (BSN) through traditional full-time and part-time studies.

## Traditional Full-Time BSN Admission Criteria Pre-Clinical Admission Criteria

Admission to UMSL as a pre-clinical nursing student does not guarantee admission into the clinical track of any of the Pre-Licensure BSN Options (Traditional, Accelerated or Part-Time Evening/Weekend), unless a student is admitted to the Traditional BSN Option under the Freshman Guaranteed Clinical Criteria.

## Freshman Guaranteed Clinical Criteria

First-time freshmen and applicants with fewer than 24 transferable college credit hours from a regionally accredited college or university who meet the following minimum criteria may earn a *guaranteed* clinical space in the Traditional BSN Option:

- Admission to UMSL
- Minimum ACT score of 22
- Minimum *core* high school GPA of 2.9 (as calculated by UMSL's Office of Admissions)

In order to keep their guaranteed clinical space, students must maintain the following minimum criteria upon enrollment at UMSL:

- Full-time enrollment at UMSL
- Minimum cumulative GPA of 2.75 (GPA is calculated on all attempts of all undergraduate courses)
- Minimum science GPA of 2.75 (GPA is calculated on *first attempts only* of: Chemistry, Anatomy & Physiology I, Anatomy & Physiology II and Microbiology)
- Completion of all general education course requirements (<http://www.umsel.edu/divisions/nursing/Pre-Licensure%20BSN%20Programs/sample-plans-of-study/BSNtrad.gened.pdf>)
- Grade of C- or higher in all *prerequisite* courses

## Freshman General Admission Criteria

First-time freshmen and applicants with fewer than 24 transferable college credit hours<sup>1</sup> from a regionally accredited college or university who do not qualify for a Guaranteed Clinical Space but do meet the following minimum criteria may still qualify for admission to the nursing major as a pre-clinical student:

- Admission to UMSL
- Minimum ACT score of 21
- Minimum *core* high school GPA of 2.5 (as calculated by UMSL's Office of Admissions)

Students admitted under the Freshman General Admission Criteria must still apply competitively for a clinical space during their sophomore year (see Clinical Admission Criteria below).

<sup>1</sup> Effective Fall 2013, all first-time freshmen and transfer students *with fewer than 24 transferable college credit hours* who are admissible to UMSL may declare themselves to the Nursing major. UMSL's admission criteria for first-time college students can be found on the website for the Office of Admissions. (<http://www.umsel.edu/admissions/requirements>) These students will still have to apply competitively for admission to the clinical track, unless they meet the requirements to earn a guaranteed clinical space (above).

## Transfer Student Admission Criteria

Applicants with 24 or more transferable college credit hours<sup>1</sup> from a regionally accredited college or university who meet the following minimum criteria may qualify for admission to the nursing major as a pre-clinical student:

- Admission to UMSL
- Minimum cumulative GPA of 2.5 (GPA is calculated on all attempts of all transferable undergraduate courses)

<sup>1</sup> *Once an applicant has earned 24 or more transferable college credit hours from a regionally accredited college or university, we do not take ACT score and/or high school GPA into consideration for admissions purposes.*

## Clinical Admission Criteria

Clinical spaces are awarded on a competitive and space-available basis for each admission period. Admission to the University of Missouri St. Louis does not guarantee admission into the clinical track of the Traditional BSN Option unless a student meets the Freshman Guaranteed Clinical Criteria (see above).

Applicants must meet the following *minimum* criteria to apply for a clinical space in the Traditional BSN Option:

- Admission to UMSL
- Minimum cumulative GPA of 2.5 (GPA is calculated on all attempts of all transferable undergraduate courses)
- Minimum science GPA of 2.5 (GPA is calculated on *first attempts only* of: Chemistry, Anatomy & Physiology I, Anatomy & Physiology II and Microbiology)
- Required science courses (listed above) completed within 10 years prior to enrollment
- Completion of all general education course requirements (<http://www.umsel.edu/divisions/nursing/Pre-Licensure%20BSN%20Programs/sample-plans-of-study/BSNtrad.gened.pdf>)
- Grade of C- or higher in all *prerequisite* courses

## Traditional Part-Time BSN Admission Criteria Pre-Clinical Admission Criteria

Applicants who plan to complete their general education / prerequisite coursework at UMSL must apply to the university as a pre-clinical nursing student. It is important to note that admission as a pre-clinical nursing student does not guarantee admission into the clinical track of any of the Pre-Licensure BSN Options (Traditional, Accelerated or Part-Time Evening/Weekend), unless a student is admitted to the Traditional BSN Option under the Freshman Guaranteed Clinical Criteria (<http://www.umsel.edu/divisions/nursing/Pre-Licensure%20BSN%20Programs/admission-criteria-guaranteed.html>).

Applicants with 24 or more transferable college credit hours<sup>1</sup> from a regionally accredited college or university who meet the following minimum criteria may qualify for admission to the nursing major as a pre-clinical student:

- Admission to UMSL
- Minimum cumulative GPA of 2.5 (calculated on all attempts of all transferable undergraduate courses)

<sup>1</sup> Once an applicant has earned 24 or more transferable college credit hours from a regionally accredited college or university, we do not take ACT score and/or high school GPA into consideration for admissions purposes.

Students admitted under the Pre-Clinical Admission Criteria must still apply competitively for a clinical space (see below).

## Clinical Admission Criteria

Clinical spaces are awarded on a competitive basis for each admission period. Admission to UMSL does not guarantee admission into the clinical track of the Part-Time BSN Option.

Applicants must meet the following *minimum* criteria to apply for a clinical space in the Part-Time BSN Option:



- Admission to UMSL
- Minimum cumulative GPA of 2.5 (GPA is calculated on all attempts of all transferable undergraduate courses)
- Minimum science GPA of 2.5 (GPA is calculated on *first attempts only* of: Chemistry, Anatomy & Physiology I, Anatomy & Physiology II and Microbiology)
- Required science courses (listed above) completed within 10 years prior to enrollment
- Completion of all general education course requirements (<http://www.umsl.edu/divisions/nursing/Pre-Licensure%20BSN%20Programs/sample-plans-of-study/BSNtrad.gened.pdf>)
- Grade of C- or higher in all *prerequisite* courses

## BSN Traditional Application Procedure To Apply For Nursing Major (Pre-clinical)

First-time freshmen and applicants with fewer than 24 transferable college credit hours, send the following:

- Completed University application
- Official high school transcripts or GED score
- Official ACT or SAT score
- Official college transcripts, if applicable

Applicants with 24 or more transferable college credit hours, send the following:

- Completed University application
- Official college transcripts

## To Apply For Clinical Major in the 4 Year Traditional BSN Track

To be considered for the clinical major, students must file a separate clinical major application available through the College's website or Office of Student Services and send it directly to the College of Nursing. Students must complete an application for the Clinical Major during their last semester of enrollment in prerequisite coursework and send the following:

- Completed University application
- Completed College of Nursing Clinical Major application
- Official college transcripts

## Application deadlines for the clinical major

To be admitted to the clinical nursing major all material must be submitted to the College of Nursing, Office of Student services by the following dates:

- Fall admission – February 1st
- Spring admission – October 1st

## Accelerated BSN Program

In addition to the traditional full-time and part-time options, the College of Nursing offers coursework leading to the Bachelor of Science in nursing (BSN) through an accelerated program. The program is designed for students to complete degree studies in 15 months.

## Pre-Clinical Admission Criteria

Applicants who plan to complete their general education/prerequisite coursework at the University of Missouri-St. Louis must apply to the university as pre-clinical nursing students. It is important to note that admission as a pre-clinical nursing student does not guarantee admission into the clinical track of any of the pre-licensure BSN options (Traditional full-time, Traditional part-time, or Accelerated), unless a student is admitted to the traditional BSN option under the Freshman Guaranteed Clinical Criteria (<http://www.umsl.edu/divisions/nursing/Pre-Licensure%20BSN%20Programs/admission-criteria-guaranteed.html>).

Applicants with 24 or more transferable college credit hours<sup>1</sup> from a regionally accredited college or university who meet the following minimum criteria may qualify for admission to the nursing major as a pre-clinical student:

- Admission to UMSL
- Minimum cumulative GPA of 2.5 (calculated on all attempts of all transferable undergraduate courses)

<sup>1</sup> Once an applicant has earned 24 or more transferable college credit hours from a regionally accredited college or university, we do not take ACT score and/or high school GPA into consideration for admissions purposes.

Students admitted under the pre-clinical admission criteria must still apply competitively for a clinical space (see below).

## Clinical Admission Criteria

Clinical spaces are awarded on a competitive basis for each admission period. Admission to the University of Missouri-St. Louis does not guarantee admission into the clinical track of the Accelerated BSN option.

Applicants must meet the following *minimum* criteria to apply for a clinical space in the Accelerated BSN Option:

- Admission to UMSL
- A Baccalaureate Degree in another field of study from a regionally accredited college or university *or* completion of at least 62 college credit hours before the start of the program
- Minimum cumulative GPA of 3.0 for applicants with a Baccalaureate Degree *or* minimum cumulative GPA of 3.2 for applicants without a Baccalaureate Degree (GPA is calculated based on all attempts of all transferable undergraduate courses)
- Completion of all general education course requirements (<http://www.umsl.edu/divisions/nursing/Pre-Licensure%20BSN%20Programs/sample-plans-of-study/BSNacc.gened.pdf>)
- Grade of C or higher in all *prerequisite* courses
- Required science courses (Chemistry, Anatomy & Physiology I, Anatomy & Physiology II and Microbiology) completed within 10 years prior to enrollment

## Application deadlines for the Accelerated track

To be admitted to the accelerated track that begins in May of each year only, all materials must be submitted to the College of Nursing, Office of Student Services by the following dates:

- Early acceptance deadline - September 15
- After September 15, on a space-available basis

For specific information regarding the B.S.N. degree program, contact Office of Student Services at (314) 516-6066 or 1-888-NURSEUM or visit the College of Nursing website.

## Credit by Transfer and Examination

Credit may be granted for selected general studies. See Admission and Application Procedure section in this Bulletin for credit information.

### Pre-Licensure-15 month accelerated option

NURSE 3120	Foundations of Nursing	7
NURSE 3121	Clinical Foundations of Nursing <sup>1</sup>	3
NURSE 3820	Introduction to Evidence-Based Nursing Practice and Informatics	5
NURSE 3804	Ethical And Legal Dimensions Of Nursing Practice	3
NURSE 3330	Nursing of Adults I	5
NURSE 3331	Clinical Nursing of Adults I <sup>1</sup>	3
NURSE 3340	Behavioral Health Nursing	2.5
NURSE 3341	Clinical Behavioral Health Nursing <sup>1</sup>	1.5
NURSE 3350	Nursing of Adults II	5
NURSE 3351	Clinical Nursing of Adults II <sup>1</sup>	3
NURSE 3360	Maternal-Child Nursing	5
NURSE 3361	Clinical Maternal-Child Nursing <sup>1</sup>	3
NURSE 4520	Population Focused Nursing	2
NURSE 4521	Clinical Population Focused Nursing <sup>1</sup>	2
NURSE 4530	Leadership Development and Professional Nursing Practice	4
NURSE 4531	Clinical Leadership Development and Professional Nursing <sup>1</sup>	4
Total Hours		58

<sup>1</sup> Includes a laboratory and/or clinical component

## Post Licensure RN to BSN

The RN to BSN curriculum is designed to be completed in six consecutive semesters and takes two years to complete. The innovative program offers flexibility and accessibility in a part-time program. The program allows students to choose to complete their BSN with coursework online, on campus, or at various outreach sites in the St. Louis area.

## Admission Criteria

Admission Requirements RN to BSN include:

- Admission to the University.
- Graduate of either an accredited diploma or associate degree program in nursing.
- Evidence of current licensure as a registered nurse with eligibility for licensure in Missouri.
- Cumulative grade point average of 2.5 (4.0 scale) on a minimum of 30 transferable credit hours (excluding nursing course work)

RN to BSN required nursing courses:

NURSE 3807 (p. 388)	Nursing Research - Evidence Based Nursing Practice	3
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NURSE 3808 (p. 388)	Management And Leadership In Nursing	2-3
NURSE 3817 (p. 388)	Introduction To Nursing And Health Informatics	3
NURSE 3900 (p. 388)	Dimensions Of Professional Nursing	3
NURSE 3920 (p. 388)	Health Assessment <sup>1</sup>	3
NURSE 4901 (p. 388)	Family And Community Nursing <sup>1</sup>	5
NURSE 4905 (p. 388)	Values In Professional Nursing <sup>1</sup>	3
NURSE 4911 (p. 388)	Synthesis In Nursing Practice <sup>1</sup>	5
Total Hours		27-28

<sup>1</sup> Includes a laboratory and/or clinical component

RN to BSN students are required to complete a standardized assessment exam during the final part of the program evaluation.

## Sample Degree Completion Plans

BSN Traditional Full-Time (p. 392) BSN Accelerated (p. 393)

BSN Traditional Part-Time (p. 393) RN to BSN (p. 393)

## BSN Traditional Full-Time Study Plan

Students Admitted as Freshmen with Guaranteed Clinical Space

First Year		
Fall	Hours Spring	Hours
ENGL 1100	3 ECON 1000	3
MATH 1030	3 BIOL 1131	4
NURSE 2101	2 NURSE 2103	3
BIOL 1102	3 General Education	3
CHEM 1052	4 PSYCH 1003	3
	<b>15</b>	<b>16</b>
Second Year		
Fall	Hours Spring	Hours
BIOL 1141	4 NURSE 3110	3
PSYCH 1268	3 NURSE 3106	4
BIOL 1162	3 PHIL course	3
NURSE 2105	3 General Education	6
General Education	3	
	<b>16</b>	<b>16</b>
Third Year		
Fall	Hours Spring	Hours
NURSE 3101	6 NURSE 3205	5
ENGL 3100	3 NURSE 3214	4
NURSE 3111	3 NURSE 3807	3
NURSE 3804	3 NURSE 3817	3
	<b>15</b>	<b>15</b>
Fourth Year		
Fall	Hours Spring	Hours
NURSE 3206	5 NURSE 4300	4
NURSE 3215	4 NURSE 3808	2
NURSE 3216	4 NURSE 4310	6

General Education	3 NURSE Elective (optional)	16	12
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Total Hours: 121

*PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor. All requirements are subject to change.*

## BSN Traditional Part-Time Study Plan

This plan assumes that a student has completed all prerequisites for admission.

### First Year

Fall	HourSpring	HourSummer	Hours
Prerequisite courses added	54 NURSE 3110	3 NURSE 3111	3
NURSE 2103	3 NURSE 3106	4	
NURSE 2101	2		
NURSE 2105	3		
	62	7	3

### Second Year

Fall	HourSpring	HourSummer	Hours
NURSE 3101	6 NURSE 3214	4 NURSE 3205	5
NURSE 3817	3 NURSE 3807	3	
	9	7	5

### Third Year

Fall	HourSpring	HourSummer	Hours
NURSE 3216	4 NURSE 3206	5 NURSE 3808	2
NURSE 3215	4 NURSE 3804	3 NURSE 4300	4
	8	8	6

### Fourth Year

Fall	Hours
NURSE 4310	6
Nursing elective (optional)	6

Total Hours: 121

*PLEASE NOTE: This plan is an example of what an academic plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor. All requirements are subject to change.*

## BSN Accelerated Plan of Study

This plan assumes that a student has completed all prerequisites for admission.

Prerequisite courses: 62-63 credit hours

### First Year

Fall	HourSpring	HourSummer	Hours
N/A	N/A	NURSE 3120	7
		NURSE 3820	5
		NURSE 3121	3
	0	0	15

### Second Year

Fall	HourSpring	HourSummer	Hours
NURSE 3341	1.5 NURSE 3350	5 NURSE 4520	2
NURSE 3340	2.5 NURSE 3360	5 NURSE 4521	2
NURSE 3331	3 NURSE 3361	3 NURSE 4530	4
NURSE 3330	5 NURSE 3351	3 NURSE 4531	4
NURSE 3804	3		
	15	16	12

Total Hours: 58

*PLEASE NOTE: This plan is an example of what an academic plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor. All requirements are subject to change.*

## RN to BSN Study Plan

This plan assumes that a student has completed all prerequisites for admission:

General Education and Prerequisites: 50 credit hours

Lower Division Nursing: 39 credit hours

### First Year

Fall	HourSpring	HourSummer	Hours
NURSE 3817	3 NURSE 3920	3 ENGL 3120	3
NURSE 3900	3 NURSE 4905	3 NURSE 3799	3
	6	6	6

### Second Year

Fall	HourSpring	HourSummer	Hours
NURSE 3807	3 NURSE 4901	5 NURSE 4911	5
NURSE 3808	2-3		
	5-6	5	5

Total Hours: 33-34

*PLEASE NOTE: This plan is an example of what an academic plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor. All requirements are subject to change.*

## Courses

### **NURSE 1010 Orientation To Nursing: 0 semester hours**

Prerequisites: Admission to four-year baccalaureate program. This mandatory eight-week introduction to the nursing program provides a comprehensive orientation to the program. Students are introduced to the academic and clinical expectations of the curriculum. Concerns critica for academic success (i.e., time management, effective study skills, stress management and dealing with test anxiety) are addressed.

### **NURSE 2101 Introduction to Nursing: 2 semester hours**

This course introduces the historical and theoretical development of nursing as a discipline. Nursing is examined as a dynamic practice profession. Variables that influence nursing and health care are discussed. Concepts and skills introduced in this course guide the student's educational experience within the nursing major.

**NURSE 2103 Nutrition And Health: 3 semester hours**

This course examines nutritional needs throughout the life span with emphasis on nutritional principles related to health promotion and protection. Content includes assimilation, digestion and absorption of nutrients and cultural and economic influences on dietary practices.

**NURSE 2105 Communication In The Nursing Profession: 3 semester hours**

Prerequisites: none This course focuses on the development of communication abilities utilized in professional nursing. The individual's relationship with self, others and groups is discussed. Students learn verbal and non-verbal communication skills, self-awareness, and sensitivity to others. Interpersonal skills are introduced to enable the student to develop effective human caring relationships with a diverse population of clients and colleagues.

**NURSE 3101 Nursing And Health: 6 semester hours**

Prerequisites: BIOL 1131; BIOL 1141; CHEM 1052; NURSE 1010, NURSE 3106; NURSE 3110; NURSE 3111 An introduction to the discipline of nursing, the historical and theoretical development of nursing is explored with an emphasis on critical thinking, the teaching/learning process, and foundational practice concepts. Through modular laboratory experiences, the student acquires psychomotor skills to provide safe and effective nursing care to clients promoting health and wellness. Includes classroom, laboratory and clinical experiences.

**NURSE 3106 Assessment Of Clients In Health And Illness: 4 semester hours**

Prerequisites: BIOL 1131; BIOL 1141; BIOL 1162; CHEM 1052; PSYCH 1268; NURSE 1010. This course integrates theoretical knowledge and interpersonal skills in the assessment of clients, focusing on differentiating normal from abnormal findings. It emphasizes the use of problem solving, critical thinking and cultural competency in identifying multidimensional health variations across the life span. The course includes classroom and laboratory experiences.

**NURSE 3110 Pathophysiological Bases Of Nursing Practice: 3 semester hours**

Prerequisites: BIOL 1131, BIOL 1141, BIOL 1162, CHEM 1052 (or equivalent); NURSE 1010 This course focuses on the nature of disease, its causes and the bodily changes that accompany it. The course includes a study of general principles of disease, specific diseases of individual organs and systems and the clinical implications.

**NURSE 3111 Pharmacotherapeutics In Nursing Practice: 3 semester hours**

Prerequisites: BIOL 1141, BIOL 1162, CHEM 1052, NURSE 1010; pre/co requisite: NURSE 3110. This course introduces key terminology, legal foundations, general principles and clinical applications of pharmacology.

**NURSE 3120 Foundations of Nursing: 7 semester hours**

Prerequisites: All general education requirements and accelerated nursing option prerequisite non-nursing courses. This course introduces the student to the theoretical concepts and foundations of professional nursing practice. Utilizing an integrated approach, health promotion and protection throughout the lifespan are explored and supported using theories of nursing practice, health assessment of well individuals, and general principles and concepts of pharmacology and critical thinking.

**NURSE 3121 Clinical Foundations of Nursing: 3 semester hours**

Prerequisites: NURSE 3120. This course assists in the development and application of clinical reasoning in the lab, clinical agency, and simulation environments. Through clinical learning experiences, the student acquires basic psychomotor, communication, and medication administration skills. The student applies these skills in the provision of safe and effective nursing care to clients while promoting health, wellness, and clinical reasoning.

**NURSE 3205 Adult Health Nursing I: 5 semester hours**

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on the nursing care of the adult experiencing selected pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to immune responses, problems of oxygenation: ventilation, transport and perfusion: kidney function; regulatory mechanisms and digestion absorption and elimination. emphasis is placed on health restoration, maintenance and support as well as the continued development of the nurse-client relationship, critical thinking processes, and research-based nursing practice. This course includes classroom and clinical activities in a variety of settings.

**NURSE 3206 Adult Health Nursing II: 5 semester hours**

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on the nursing care of the adult experiencing selected pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to endocrine, sensory-perceptual, gynecological, and genitourinary functions. Emphasis is placed on health restoration, maintenance and support as well as the continued development of the nurse-client relationship, critical thinking processes, and research-based nursing practice. This course includes classroom and clinical activities in a variety of settings.

**NURSE 3214 Psychiatric Mental Health Nursing: 4 semester hours**

Prerequisites: All 3100-level nursing courses; PSYCH 1268. This course focuses on health and illness across the lifespan of clients who have acute and chronic emotional and psychosocial difficulties and psychiatric illnesses. The course emphasizes development of students' decisional capabilities, self-awareness and professional behaviors as they utilize theory and research from nursing, psychology and related disciplines for the provision of nursing care to individuals, families, & groups. Clinical experiences in community and acute care settings are designed for students to engage in individual and group strategies that promote and maintain mental health. Course includes classroom and clinical activities in a variety of settings.

**NURSE 3215 Nursing Of Women And Childbearing Families: 4 semester hours**

Prerequisites: All 3100 level nursing courses, PSYCH 1268. Focuses on the childbearing family and women's reproductive health, including family dynamics and growth and development. Health promotion, protection, maintenance and restoration are covered in experiences that include hospital and community settings. Health care policy and systems as relevant to these populations are included. Course includes classroom and clinical activities in a variety of settings.

**NURSE 3216 Child And Family Health Nursing: 4 semester hours**

Prerequisites: All 3100 level nursing courses, PSYCH 1268. This course focuses on pediatric health and illness with emphasis on family dynamics, growth and development and communication with children and their families. Health promotion, protection, restoration, maintenance and support concepts are covered in experiences that include hospital and community settings. Health care policy and systems are studied as relevant to this population. Course includes classroom and clinical activities in a variety of settings.



**NURSE 3324 Sociology Of The Family: 3 semester hours**

Same as SOC 3224. Prerequisite: SOC 1010 or consent of instructor.

The study of patterns of close relationships, and how these relationships are influenced by larger social forces. Topics include: love, dating, mate selection, cohabitation, alternative lifestyles, working families, parenting, single mothers, families in crisis, domestic violence, and divorce. Universal and variable aspects of family organization, family role systems, and changes in family social structure.

**NURSE 3330 Nursing of Adults I: 5 semester hours**

Prerequisites: NURSE 3120, NURSE 3121. This course focuses on the nursing care of the adult experiencing health problems affecting body regulatory mechanisms. These mechanisms are related to perioperative processes, immune processes, problems of oxygenation, cardiovascular alterations, fluid and electrolyte/acid-base imbalances, integumentary problems, abnormalities of the reproductive system and genetics, oncology and hematology problems. This course also incorporates relevant concepts of pharmacology and pathophysiology related to these conditions. Emphasis is placed on health promotion and restoration, maintenance and support as well as the continued development of the nurse-client relationship, clinical reasoning, and evidence-based nursing practice across the adult life span.

**NURSE 3331 Clinical Nursing of Adults I: 3 semester hours**

Prerequisites: NURSE 3330. This course focuses on the nursing care of adults in the lab, clinical agency, and simulation environments. Utilizing an integrated approach, advanced nursing skills and assessment techniques for adult clients are mastered in perioperative processes, immune processes, problems of oxygenation, hematology, cardiovascular alterations, fluid and electrolyte/acid-base imbalances, integumentary problems, abnormalities of the reproductive system, genetics and oncology problems. Clinical reasoning is developed and applied in order to provide safe and effective nursing care to adult clients across the health/illness continuum.

**NURSE 3340 Behavioral Health Nursing: 2.5 semester hours**

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on health and illness across the lifespan of clients who have acute and chronic psychosocial and behavioral health issues and specific psychiatric illnesses. An emphasis is placed on the nurse/client relationship in behavioral health promotion, restoration, maintenance and support.

**NURSE 3341 Clinical Behavioral Health Nursing: 1.5 semester hour**

Prerequisites: NURSE 3340. In this course students utilize theory and evidence from nursing and related disciplines in the provision of nursing care to individuals, families, and groups with psychiatric and behavioral health problems. Clinical experiences in community and acute care settings are designed so that students can engage in individual and group strategies that promote and maintain mental health.

**NURSE 3350 Nursing of Adults II: 5 semester hours**

Prerequisites: NURSE 3120, NURSE 3121. This course focuses on the nursing care for the adult experiencing complex pathophysiologic processes affecting body regulatory mechanisms. These mechanisms are related to endocrine, neurological, musculoskeletal, gastrointestinal, sensory-perceptual, male reproductive and genitourinary problems. This course also incorporates relevant concepts of pathophysiology and pharmacology related to these conditions. Emphasis is placed on health promotion and restoration, maintenance and support, as well as the continued development of the nurse-client relationship, critical thinking and evidence-based nursing practice across the adult life span.

**NURSE 3351 Clinical Nursing of Adults II: 3 semester hours**

Prerequisites: NURSE 3350. This course focuses on the nursing care of adults in the lab, clinical agency and simulation environments. Utilizing an integrated approach, complex psychomotor skills and assessment techniques for adult clients are mastered in patients with musculoskeletal problems, endocrine alterations, renal/genitourinary problems, sensory-perceptual problems, and liver problems. Clinical reasoning is developed and applied in order to provide safe and effective nursing care to adult clients with complex problems across the health/illness continuum.

**NURSE 3360 Maternal-Child Nursing: 5 semester hours**

Prerequisites: PSYCH 1268, NURSE 3120, NURSE 3121. This course focuses on women's reproductive health, childbearing and child rearing families, as well as the health and illness of children from conception through adolescence. There is an emphasis on family dynamics, growth and development, and communication with children and their families. Health care policy and systems are incorporated as they relate to diverse populations.

**NURSE 3361 Clinical Maternal-Child Nursing: 3 semester hours**

Prerequisites: NURSE 3360. Health promotion, protection, restoration, and maintenance for the mother-child and family care are addressed in experiences that include nursing skills lab, hospital agency and a variety of community settings.

**NURSE 3799 Quantitative Analysis In The Health Sciences: 3 semester hours**

Prerequisites: MATH 1030 or equivalent. This course focuses on concepts and applications of statistics in the health sciences. Topics include descriptive and inferential statistics, probability distributions of random variables, sampling and estimation. The course uses examples and content from health sciences to provide the basic concept structure for quantitative analysis.

**NURSE 3804 Ethical And Legal Dimensions Of Nursing Practice: 3 semester hours**

Prerequisites: Philosophy (3 credits). This course explores the ethical and legal dimensions of nursing practice. The relationship between ethical and legal issues is examined within nursing situations. The student participates in dialogue addressing ethical-legal issues in professional nursing practice to explore personal values, increase sensitivity to others and to develop ethical reasoning abilities.

**NURSE 3807 Nursing Research - Evidence Based Nursing Practice: 3 semester hours**

Prerequisite: NURSE 3799 (or equivalent). This course prepares nurses to provide evidence based care to patients among the rapid advances in the science and technology of healthcare. This course provides a basic understanding of how evidence is developed, including the research process, clinical judgment, interprofessional perspectives, and patient preference as applied to nursing practice. Students will learn a systematic method to evaluate and apply research findings and other evidence in designing and implementing nursing care that is multidimensional, high quality, and cost-effective.

**NURSE 3808 Management And Leadership In Nursing: 2-3 semester hours**

Prerequisites: All 3000 level nursing courses; ECON 1000 or (equivalent) This course prepares the nurse to coordinate and manage client care in diverse health care settings. Emphasis is placed on leadership and management theory and related skills, collaboration, delegation, coordination, and evaluation of multi-disciplinary work and the application of outcome-based nursing practice.

***NURSE 3817 Introduction To Nursing And Health Informatics: 3 semester hours***

This online laboratory course establishes competency in fundamental information management and computer technology skills. It enables students to use existing information systems and available information to manage nursing practice. Students critically evaluate technology, information, and its sources; use decision support systems designed for clinical decision making; and focus on the representation of nursing data, information, and knowledge.

***NURSE 3820 Introduction to Evidence-Based Nursing Practice and Informatics: 5 semester hours***

Prerequisites: NURSE 3799 or equivalent statistics course. This course will focus on current review of qualitative and quantitative nursing literature and research utilization through evidence-based practice and establish competency in fundamental information management and technology. Students will examine the research and evidence-based process through analysis and critique of nursing literature; critically evaluate technology, information, and its sources; use decision support systems designed for clinical and ethical decision making; and focus on the presentation of nursing data, information, and knowledge.

***NURSE 3873 Guided Study In Nursing: 1-3 semester hours***

This course is an in-depth independent study of selected topics in nursing under the guidance of a specific instructor. No more than six hours may be taken under this option.

***NURSE 3900 Dimensions Of Professional Nursing: 3 semester hours***

Prerequisites: Admission to the College as RN This course investigates the roles and responsibilities of the professional nurse within a rapidly changing health care delivery system. Key issues are explored with emphasis on health promotion and health. Graduates of diploma nursing programs will be awarded college credit for successful validation of basic nursing knowledge as part of this course.

***NURSE 3920 Health Assessment: 3 semester hours***

Prerequisites: NURSE 3900 and NURSE 3817 (may be taken concurrently) or consent of instructor This laboratory course focuses on the knowledge, communication abilities, and technical skills necessary for comprehensive assessment of individuals of all ages.

***NURSE 4300 Community Health Nursing: 4 semester hours***

Prerequisites: All 3000 level nursing courses This course provides a conceptual foundation for nursing that recognizes the community as client in society. The course examines socioeconomic, environmental, epidemiological, and legislative influences, ethical/legal issues, and the impact of health beliefs and practices on health promotion and protection in communities and society. The student applies various theories and concepts when encountering families, groups and communities with diverse value systems and cultural backgrounds. Course includes classroom and clinical activities in a variety of settings.

***NURSE 4310 Senior Synthesis: 6 semester hours***

Prerequisites: All 3000 level nursing courses; NURSE 4300 and NURSE 3808 may be taken concurrently. This course integrates theory and practice from previous nursing and general education courses with the goal of preparing the student for entry into professional nursing practice. Within a seminar context, students explore a variety of clinical and professional nursing topics. The course includes research-based strategies utilized for health promotion and protection, health restoration, maintenance and support. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems. Course includes classroom and clinical experiences in a variety of settings. Not for graduate credit.

***NURSE 4520 Population Focused Nursing: 2 semester hours***

Prerequisites: All 3300 level nursing courses, NURSE 3804, NURSE 3820. This course provides a conceptual foundation for nursing that recognizes populations in society. The course examines the effect of socioeconomic and environmental, epidemiological factors, and the impact of health beliefs and practices on health promotion and protection in populations. This course also focuses on epidemiological factors and legislative influences in diverse populations.

***NURSE 4521 Clinical Population Focused Nursing: 2 semester hours***

Prerequisites: NURSE 4520. This clinical course focuses on the nursing care of populations in various settings. The student applies population-based theories and concepts when encountering individuals, families, groups and populations with diverse value systems and cultural backgrounds.

***NURSE 4530 Leadership Development and Professional Nursing Practice: 4 semester hours***

Prerequisites: All 3300 level nursing courses, NURSE 3804, NURSE 3820. This course integrates theory and practice from previous nursing and general education courses with the goal of preparing the student for entry into professional nursing practice. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems. Topics will include leadership, management theory and related skills, collaboration, delegation, coordination, and evaluation of outcome based interdisciplinary nursing practice.

***NURSE 4531 Clinical Leadership Development and Professional Nursing Practice: 4 semester hours***

Prerequisites: NURSE 4530. This clinical course includes a variety of experiences to prepare the student nurse to lead, coordinate, and manage client care in diverse health care settings. This course includes research-based strategies utilized for health promotion and protection, health restoration, maintenance, and support. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems.

***NURSE 4720 Perioperative Nursing: 3 semester hours***

PREREQUISITES: Consent of the instructor. Provides experiences in preoperative, intraoperative, and postoperative settings. Includes a clinical component.

***NURSE 4722 Transcultural Nursing: 3 semester hours***

Prerequisite: Consent of the Instructor. Examines transcultural nursing concepts, theories and practices in relationship to human caring. Focuses on application and analysis of health care and scope of practice within selected cultural contexts. Includes practicum experiences.

***NURSE 4723 Nurse Externship: 3 semester hours***

Prerequisite: Senior level status; GPA 3.0 (4.0 scale) This course provides the opportunity to apply theoretical and conceptual knowledge and skills in a structured clinical environment under the guidance of a mentor.

***NURSE 4724 Emergency/Trauma Nursing: 3 semester hours***

Prerequisites: NURSE 3205 and NURSE 3206 or consent of instructor. This course provides a framework for the roles and responsibilities of the professional registered nurse in Emergency and Trauma nursing care.

***NURSE 4726 Parish Nursing: 3 semester hours***

Prerequisites: All 2000 level nursing courses, NURSE 3205 and NURSE 3214. This course provides a conceptual foundation that recognizes a speciality of nursing practice that combines professional nursing and health ministry. It examines four major concepts: professionalism; health and wholeness; spirituality; and community as it relates to culture and diversity. The course includes classroom discussion, individual reflection and community based learning experiences.

***NURSE 4730 Nursing Care At The End Of Life: 3 semester hours***

Prerequisites for Nursing Students NURSE 3205 and NURSE 3214. All others by consent of instructor. This course focuses on the nursing care of terminally ill patients and their families. Topics explored will include the impact of personal values and beliefs about death, physiology of end stage disease processes, symptom assessment and management, psychosocial and spiritual support, consideration in special patient populations, societal issues and trends in end of life care, ethical considerations in caring for the dying patient, grief and bereavement processes, and the role nursing in end of life care across settings.

***NURSE 4741 Advanced Nrsng Assmt & Mgt Of Clients W/Cardiac Dysrhythmias: 3 semester hours***

PREREQUISITES: Senior status Focuses on advanced nursing assessment and management of clients with cardiac rhythm problems and conduction disturbances. Includes a clinical component.

***NURSE 4742 Critical Care Nursing Of The Adult: 3 semester hours***

Prerequisites: RN or completion of NURSE 3205 and NURSE 3206 (or equivalent). Focuses on health restoration, health maintenance, and health support of individuals with dysfunctions or trauma to major organ systems. Emphasis is on understanding pathophysiology and psychosocial processes related to nursing and collaborative interventions, and the development of a functional framework for data organization and analysis.

***NURSE 4901 Family And Community Nursing: 5 semester hours***

Prerequisites: NURSE 3900, NURSE 3817 and NURSE 3920 This practicum course introduces the concepts, principles, skills, and professional nursing roles essential to practice community-based professional nursing with families and groups.

***NURSE 4905 Values In Professional Nursing: 3 semester hours***

Prerequisites: All 3000 level RN/BSN nursing courses or consent of instructor Explores values and beliefs as they shape professional nursing practice and influence clinical decision making and interventions in the evolving health care system. Attention is given to the impact of sociocultural factors and health/illness beliefs and practices of the diverse populations served by the professional nurse. Students examine their own understanding of the moral nature of professional nursing within the context of a diverse society.

***NURSE 4911 Synthesis In Nursing Practice: 5 semester hours***

Prerequisites: NURSE 4901. This practicum course focuses on community-based application and synthesis of professional nursing roles and responsibilities with selected populations determined to be at risk for a variety of health related problems. The course includes assessment of cognitive and affective growth achieved while in the BSN Completion Program.

***NURSE 6000 Statistics in Nursing & Health Sciences: 3 semester hours***

Prerequisites: Admission to graduate study in nursing or consent of instructor. Provides students with a graduate level understanding of quantitative methods and their relationship to research in nursing and health sciences. Students will conduct lab data analysis based on the topics covered in the class and learn how to generate specific research questions and conduct basic statistical analysis.

***NURSE 6106 Policy, Organization And Financing In Health Care: 3 semester hours***

Prerequisites: Admission to MSN program. This course presents an overview of health care policy, organization, and financing with emphasis on current health care trends. The focus is on the design and implementation of health care delivery systems with the goal of providing safe, quality, and informatics driven cost-effective care. Emphasis is placed on the development of a leadership role in managing human, financial, and physical health care resources. The format includes pertinent information concerning primary health care and public health issues, the relationship between these issues, and improving health care delivery and outcomes.

***NURSE 6111 Theoretical Foundations of Research and Practice: 3 semester hours***

Prerequisites: Admission to the Master's program in the college of Nursing. This course provides an overview of selected theories and frameworks that can be used to guide advanced practice nurses in facilitating their learning and use of evidence-based practice. It is centered on the explication of major theories that will be used in practice. Nursing middle-range and practice theories, theories related to cultural aspects of care, population-based theories, change theories, and informatics theories such as bioinformatics and genetics will form the foundation for advanced practice.

***NURSE 6112 Nursing Research Methods: 3 semester hours***

Prerequisites: NURSE 3799 or equivalent; NURSE 6111 may be taken concurrently This course is designed to provide the student with the skills required to be a consumer of nursing research. These include the fundamentals of scientific inquiry in nursing as well as the information necessary to understand and evaluate nursing research. Principles and techniques common to scientific investigation are applied to nursing. Researchable problems are developed.

***NURSE 6114 Evidence-Based Nursing: 3 semester hours***

Prerequisite: NURSE 6112 This course prepares nurses to review existing nursing research about a nursing practice problem and to propose appropriate changes in current nursing practice. The theoretical basis for evidence-based nursing with respect to screening, diagnosis, selection of treatment alternatives, and prognosis are examined. Research designs such as case control and cohort studies are included. Practical application of change in nursing is examined, including formative and summative aspects of evaluation. Opportunities are provided to develop a plan to implement evidence-based change in an area of nursing practice.

***NURSE 6120 Population-Based Foundations of Health: 3 semester hours***

Prerequisite: Admission to MSN. The purpose of this course is to provide students with an advanced nursing practice perspective on providing population-based nursing care. This course includes an evaluation of human and cultural diversity in the health-illness continuum. Core concepts include ethics; theories of health and health promotion, protection, restoration, and maintenance; and the support needed for a peaceful death. Coursework will focus on community/population-based data on epidemiology, disease and injury prevention, health education, growth and development, and family systems.



***NURSE 6130 Research for Evidence-Based Practice: 3 semester hours***

Prerequisites: Admission to MSN. This course provides students with skills required to systematically explore and evaluate current nursing knowledge for scientific and clinical merit to promote evidence-based nursing practice. Students select a researchable problem, review and critique relevant literature, consider ethical and cultural issues, examine methodological procedures associated with scientific investigation, and explore potential barriers to evidence-based practice. Students critically analyze differing research paradigms and current issues surrounding research and evidence-based practice.

***NURSE 6144 Health Promotion and Cultural Diversity: 3 semester hours***

Prerequisites: Admission to the MSN Program. This course provides graduate nursing students with knowledge related to the concepts of health promotion, health protection, cultural diversity, and moral/ethical influences across the lifespan. Core concepts for the course include theories of health and health promotion and protection, epidemiology, disease and injury prevention, health education, cultural diversity, growth and development, nutrition and family systems. The students will explore values clarification and ethical analysis.

***NURSE 6309 Role Of The Nurse Educator: 3 semester hours***

Prerequisites: Admission to the MSN program or consent of instructor. This course will explore the roles, responsibilities, and functions of the nurse educator. Emphasis will be placed on the development and evaluation of the interactive nature of teaching and learning in a variety of settings.

***NURSE 6320 Learning And Curriculum Development In Nursing: 3 semester hours***

Prerequisites: NURSE 6309. This course examines theoretical foundations, principles, and issues in curriculum design. Explores systematic evaluation of curriculum at all levels.

***NURSE 6321 Instructional Strategies In Nursing: 3 semester hours***

Prerequisites: NURSE 6309 or consent of Instructor; must be taken concurrently with NURSE 6320. This course focuses on the development and analysis of teaching and learning strategies in nursing education. Adult learning principles of teaching and learning will be incorporated into the innovative strategies developed within this course. Integration of new technology in instructional design and delivery will be highlighted. Evaluation methods of both teacher and learner will be explored.

***NURSE 6322 Evaluation Strategies in Nursing: 3 semester hours***

Prerequisites: NURSE 6309. This course provides students the opportunity to learn evaluation concepts, including testing and measurement in nursing education at the didactic, clinical and programmatic levels. Content includes strategies to assess and evaluate learning in the cognitive, psychomotor and affective domains. Quality improvements, as well as legal and ethical considerations are explored. Key concepts include criterion and norm referenced theory and technique; reliability, validity, and the associated descriptive statistics; preparation of instrumental objectives for use in developing classroom tests and clinical nursing performance evaluations.

***NURSE 6409 Role Of The Nurse Leader: 3 semester hours***

Prerequisites: Admission to the Master's Program in the College of Nursing or consent of the instructor. Analysis of the roles and responsibilities of the nurse executive in a complex healthcare system. This course explores the roles and challenges of the clinical nurse leader. Emphasis will be placed on the responsibilities of the clinical nurse and clinical nurse leader in a complex healthcare system.

***NURSE 6425 Managed Care Services: 3 semester hours***

Prerequisites: Admission to the MSN or consent of instructor Provides an analysis of the health care environment in managed care and its impact on the nurse's role.

***NURSE 6426 Health Resources Management: 3 semester hours***

Prerequisite: NURSE 6409. This course focuses on the roles and responsibilities of the nurse leader for fiscal and human resource management in both public and private sectors. Includes analysis of the environment, healthcare organization within the system and impact of resource management on nursing and health care.

***NURSE 6428 Theory And Practice In Nursing Leadership: 3 semester hours***

Prerequisite: NURSE 6409. This course focuses on theories and practices of advanced nursing leadership and management practice within complex healthcare systems. This course will also compare to global healthcare systems. Particular focus will be on the application/effectiveness assessments of the practices within healthcare organizations. Patient safety and quality management theory practices in healthcare will be discussed in depth and compared to other industries' safety and quality management programs theory/practices.

***NURSE 6509 Role Of The Clinical Nurse Specialist/Nurse Practitioner: 2 semester hours***

Prerequisites: Admission to the Master's Program in the College of Nursing or consent of instructor. This course will focus on issues affecting the emerging roles of the nurse practitioner and clinical nurse specialist. It is designed to facilitate the role development of nurses who desire to function as primary care providers and/or as specialists within a specific clinical area of advanced nursing practice. Emphasis include sub-roles of advanced practice (leader, consultant, expert, researcher, educator), legal and professional issues, change theories, and standards of practice.

***NURSE 6518 Pathophysiology For Advanced Nursing Practice: 3 semester hours***

This course focuses on implications for advanced nursing practice through examination of selected pathophysiological phenomena which occur frequently in the diverse populations to whom advanced nurses provide care.

***NURSE 6519 Advanced Pediatric Pathophysiology: 3 semester hours***

This course focuses on embryology of the major organ systems, as well as specific physiologic and pathophysiological processes relevant to the child from birth through age 18. Implications for advanced nursing practice which result from alterations of normal physiologic functioning in cellular, tissue, and organ systems are examined. Emphasis is placed on the relationship between pathophysiology, decision making and standards of advanced nursing practice.

***NURSE 6520 Pharmacology For Advanced Nursing Practice: 3 semester hours***

Prerequisites: NURSE 6518 or equivalent or consent of instructor. This is a course in clinical pharmacotherapeutics that builds on prior knowledge of drug classifications, actions, interactions, and adverse drug reactions. The major focus of the course is the pharmacotherapeutic use of medications for primary health-care management by advanced practice nurses. Emphasis is placed on clinical critical thinking process used to prescribe drugs in the management of specific illnesses. The Missouri laws for advanced practice nurse prescriptive authority will be addressed. Emphases include pharmacodynamics, pharmacokinetics, pharmacotherapeutics, health-related information, medication compliance, and issues that pertain to the prescribing of medications in advanced nursing practice.



***NURSE 6524 Health Assessment For Advanced Nursing Practice: 3 semester hours***

Prerequisite: NURSE 6518 (may be taken concurrently). This course is designed to provide a systematic approach to the advanced physical assessment as well as psychological, sociocultural, developmental and spiritual assessment of individuals across the lifespan. This course builds upon basic health assessment knowledge and skills, laboratory work interpretation, validation, documentation, and analysis of assessment findings. Two hours of theory and 1 hour of clinical lab per week are required.

***NURSE 6526 Advanced Health Assessment For Pediatric Nursing Practice: 3 semester hours***

Co-requisite: NURSE 6519 or permission of the instructor. Comprehensive assessment of children through adolescence, including those with significant health and/or developmental deviations, using advanced diagnostic reasoning process. Emphasis on health history, cultural diversity, differentiation, interpretation, and documentation of findings.

***NURSE 6529 Advanced Pharmacology For Pediatric Nursing Practice: 3 semester hours***

Prerequisites: Admission to Master of Science in Nursing or permission of the instructor. This course is a clinical pharmacotherapeutics that builds on prior knowledge of drug classifications, actions, interactions, and adverse drug reactions. The major focus of the course is the pharmacotherapeutic use of medications for primary health care management of children from birth to young adulthood by advanced practice nurses. Emphasis is placed on the clinical critical thinking process used to prescribe drugs in the management of specific illness. The Missouri Laws for advanced practice nurse prescriptive authority will be addressed. Core concepts include pharmacodynamics, pharmacokinetics, health related information, medication compliance and issues that pertain to the prescribing of medication in advanced nursing practice.

***NURSE 6530 Clinical diagnostics for Advanced Nursing Practice: 2 semester hours***

Prerequisites: NURSE 6518 or NURSE 6519. This course provides an introduction to the interpretation and appropriate use of diagnostic measures for advanced practice nurses in primary care settings. Special attention is paid to laboratory, radiographic and diagnostic testing. In addition, clinical opportunities will be provided to gain clinical interventional skills for advanced practice nursing.

***NURSE 6737 Psychiatric-Mental Health I: Diagnosis & Management In Advanced Nursing Practice: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6509, NURSE 6518, NURSE 6520, NURSE 6524, and NURSE 6530. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of individuals and families across the life span. The focus is on the maintenance and promotion of mental health. Experiences are designed to enhance assessment and technical skills needed in diagnosing and managing common mental health problems and psychiatric disorders. Management includes pharmacological and non-pharmacological interventions including psychotherapeutic treatment modalities. This course is 4 hours if taken without clinical hours and 5 hours if clinical hours are included.

***NURSE 6738 Psychiatric-Mental Health II: Diagnosis & Management In Advanced Nursing Practice: 4-5 semester hours***

Prerequisite NURSE 6737. This clinical course is designed to provide students with the opportunity to gain the concepts and skills essential to advanced practice nursing care of individuals experiencing acute and chronic psychiatric disorders. The student is expected to learn to diagnose and treat psychiatric disorders (including prescriptive practice and psychotherapy), as well as perform screening, historical, psychosocial and physical exams to diagnose/identify major psychiatric problems. An evidence based approach to advance practice nursing interventions is used. Emphases include individual and family adaptation to acute and chronic conditions, health promotion, clinical decision-making, and ethical decision-making. This course is 4 hours if taken without clinical hours and 5 hours if clinical hours are included.

***NURSE 6739 Diagnosis and Management of the Adult-Geriatric Patient I: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6518. Clinical course is designed to provide a theoretical and practical base for advanced practice nursing students to diagnose and manage health problems through the life span from young adulthood through old age. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to clinically apply the concepts and theories discussed in class in the advanced nursing care of adults who are experiencing problems related to the upper and lower respiratory system, cardiovascular system, gastrointestinal system, skin, and infectious diseases. Clinical experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems.

***NURSE 6740 Diagnosis & Mgmt of the Adult-Geriatric Patient II: 5 semester hours***

Prerequisite: NURSE 6739. Clinical course is designed to provide a theoretical and practical base for advanced practice nursing students to diagnose and manage health problems through the life span from young adulthood through old age. Emphasis is placed on clinical assessment and decision-making in the provision of direct patient care within a defined scope of practice. The student is expected to clinically apply the concepts and theories discussed in class in the advanced nursing care of adults experiencing problems related to the musculoskeletal, neurological, endocrine/metabolic, genitourinary, reproductive systems, the eye, and mental health. Clinical experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems.

***NURSE 6741 Family Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6518, NURSE 6520, NURSE 6524. NURSE 6509 and NURSE 6530 may be taken concurrently. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of individuals and families across the life span. The focus is children, women and adults. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.

***NURSE 6742 Family Health II: Diagnosis & Management In Adv Nursing Practice: 5 semester hours***

Prerequisites: NURSE 6741 This clinical course is designed to provide students with the opportunity to gain the concepts and skills essential to advanced practice nursing care of families experiencing acute and chronic health problems, with particular focus on adult clients. Emphasis is given to those health problems most commonly encountered by the Family Nurse Practitioner. A research-based and theory-based approach to nursing interventions is used. Emphases include family adaptation to acute and chronic conditions, health promotion, clinical decision-making, and ethical decision-making. 4 didactic hours and 1 clinical hour per week are required.

***NURSE 6743 Child Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130; NURSE 6518 or NURSE 6519; NURSE 6520 or NURSE 6529; NURSE 6526. NURSE 6509 and NURSE 6530 may be taken concurrently or instructor consent. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of pediatric individuals and their families. The focus is the life span of the infant through adolescence. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.

***NURSE 6744 Child Health II: Diagnosis & Mgmt In Advanced Nursing Practice: 5 semester hours***

Prerequisites: NURSE 6743. This course is designed to provide students with the opportunity to apply skills from advanced physical assessment, pathophysiology pharmacology, and theory to advanced nursing care of the child and the family. Emphasis is placed on using models and theories that guide advanced practice and planning evidence-based care. The focus is on assessing, diagnosing and planning care for clients with common pediatric problems. The implications of the developmental stage of the child and family, level of developmental skill and developmental problems for the maintenance of health, and the management of illness by the advanced practice nurse are discussed. Documentation includes pertinent history, physical examination, laboratory findings and differential diagnosis relevant to the individual client. Focus is on developing a plan of care that encompasses the various treatment modalities used in managing common pediatric health problems including specific pharmaceutical and symptomatic treatment. Clinical practice opportunities are arranged in collaboration with the instructor and planned in a variety of pediatric settings. Four hours of didactic and 1 hour of clinical per week are required.

***NURSE 6746 Women's Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6518. May be taken concurrently with NURSE 6309 and NURSE 6350. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of women. The focus is on reproductive health and the lifespan life of women throughout the childbearing continuum, including grief and loss. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.

***NURSE 6747 Women's Health II: Diagnosis & Mgmt In Advanced Nursing Practice: 5 semester hours***

Prerequisites: NURSE 6746 Clinical course designed to provide students with the opportunity to apply knowledge and skills to advanced practice nursing care of women and families throughout the lifespan. Emphasis is placed on using models and theories that guide advanced practice and research-based care. Focus is on educating the advanced practice nurse to collaborate with women and their families to promote health and prevent disease. Within this context, focus is on assessing, diagnosing and planning care for well women, as well as women experiencing common women's health problems within a health promotion framework. The format includes pertinent history, physical examination, laboratory findings, and differential diagnoses relevant to the individual client. Core concepts include adaptation of women through developmental stages, health risk assessment, health promotion, disease prevention, health education, primary care of well women, ethical decision-making, and grief and loss. Focus is on the development of a plan of care that encompasses the various treatment modalities used in managing common women's health problems including specific pharmacological and non-pharmacological therapies.

***NURSE 6870 Special Topics In Advanced Practice Nursing: 1-3 semester hours***

Prerequisites: Consent of instructor Explore special topics for the advanced practice nurse in the areas of research, theory, education and administration. No more than three hours shall be applied toward the degree. This course is for graduate MSN or PhD levels.

***NURSE 6875 Special Study In Graduate Nursing: 1-3 semester hours***

Prerequisites: Admission to MSN prog or consent of instructor In-depth study of selected topics in nursing under the guidance of a specific instructor. No more than three hours may be applied to the master's program of study.

***NURSE 6950 Advanced Nursing Practice: 4 semester hours***

Prerequisites: NURSE 6739, NURSE 6743 NURSE 6746. Advanced nursing practice examines different nursing and interdisciplinary models of case management of acute and chronic problems across the lifespan. The intensive clinical experience focuses on the student's specialty care area: adults, pediatric or women's health.

***NURSE 6951 Advanced Intensive Clinical for the Nurse Educator: 2 semester hours***

Prerequisites: NURSE 6520, NURSE 6524, NURSE 6309. This course provides a concentrated opportunity to function in an advanced nursing role as a nurse educator incorporating an intensive clinical experience focusing on the student's chosen population.

***NURSE 6952 Synthesis Practicum: 3 semester hours***

Prerequisites: All required courses in the Nurse Educator or Nursing Leadership of Health Systems option or consent of instructor. This clinical course is a concentrated opportunity to function in an advanced nursing role as a nurse administrator, integrating clinical and functional role activities within a chosen setting. Emphasis includes educator or administrator nursing practice, functional role responsibilities, and activities with emphasis on their relationship to client outcomes.

***NURSE 6954 Advanced Practice Nursing: Internship 1: 4 semester hours***

Prerequisites: All required graduate Nursing courses. This clinical course provides opportunity for the initiation of the nurse practitioner role with selected populations. Students participate in precepted experiences with certified nurse specialists, practitioners and/or primary care physicians for a minimum of 250 hours. Students will participate in clinical seminars. May be taken concurrently with other required courses.

**NURSE 6955 Advanced Practice Nursing: Internship 2: 4 semester hours**

Prerequisites: NURSE 6954. Continuation of precepted clinical experiences with a selected populations initiated in NURSE 6954. Students satisfy a minimum of 250 precepted hours with clinical nurse specialists, certified nurse practitioners, and/or primary care physicians and participate in frequent clinical seminars.

**NURSE 7200 Nursing Science: 3 semester hours**

Prerequisites: Admission to a doctoral study in nursing. This course examines the state of scientific knowledge in nursing research and practice. Gaps in the nursing research and practice are identified. Interrelationships between nursing science and scientific developments in other disciplines from the perspectives of health outcomes, population health indices, and policy implications of scientific progress are analyzed. Advanced in biophysiological, psychosocial, sociocultural, health systems, and health economics research and the implications for translation to improve nursing science and practice are analyzed.

**NURSE 7211 Biostatistics I: 3 semester hours**

Prerequisites: Admission to PhD program. This course provides a comprehensive understanding of the use of biostatistics in conducting research. Data description, logic of sampling and test statistics, hypothesis testing, type 1 and type 2 errors are included. Test statistics include one-way ANOVA, (analysis of variance); post-hoc tests and trend analysis; factorial ANOVA; repeated measures designs and mixed randomized repeated designs; multiple comparison techniques; and simple and multiple regression.

**NURSE 7212 Biostatistics II: 3 semester hours**

Prerequisites: Admission to PhD program This course builds on statistical procedures and advances the student's understanding of advanced statistical methods including design and measurement.

**NURSE 7220 Leadership in Practice: 3 semester hours**

This course provides students with the opportunity to develop and refine critical leadership skills. Emphasis is on using models and theories that facilitate inter-professional collaboration to achieve optimal health outcomes. The focus is effective communication and leadership methods necessary to establish successful inter-professional teams. Students will enhance skills in verbal, written and electronic communication; team leadership; and creating and sustaining health related initiatives. Through advanced understanding of the inter-professional dimension of health care, students will facilitate collaboration and remove barriers to providing safe, timely, effective, efficient, equitable and patient centered care in a complex environment.

**NURSE 7230 Epidemiology: 3 semester hours**

Prerequisite: NURSE 6000 or equivalent within 5 years. This course introduces the fundamental principles and methods of epidemiology. Topics to be covered include the historical perspective of epidemiology, measures of disease occurrence and of association, clinical epidemiology, disease screening, causal inference, and analytic study design. Students will design epidemiologic studies, and utilize common statistical tests. Emphasis will be placed on case control studies, cohort studies, clinical epidemiology, and infectious disease epidemiology.

**NURSE 7240 Health Informatics: 3 semester hours**

Prerequisites: Consent of the Instructor. This course explores information systems and computer technologies that can improve the health of individuals, families, communities and populations by optimizing information management and communication. Focus areas include the electronic medical record, technologies to improve patient safety, standards for privacy and security, tele-health systems to improve healthcare access to underserved populations, use of web-enhanced technologies for research translation, and strategies to provide data for decision making and evident based databases. Emphasis is placed on developing competence in technology use for the purpose of program evaluation, establishing healthcare quality, and improving healthcare delivery to diverse populations in complex healthcare settings.

**NURSE 7250 Frameworks for Health Care Delivery and Policy: 3 semester hours**

Prerequisites: None. This course is designed to provide students with a framework to understand the system through which health care is delivered and financed. The cultural and psychosocial contributors to health care are discussed. The focus is to provide students with knowledge about complex health care systems, government and private reimbursement structures, quality and patient safety initiatives, legal mandates and policy issues affecting health care delivery.

**NURSE 7260 Program and Practice Evaluation: 3 semester hours**

Prerequisite: None. Includes principles and procedures for assessing the quality and effectiveness of programs, projects and materials related to planned interventions and systems changes in health settings. Using a logic model, practice and programs will be evaluated and presented to agencies. Values, ethical issues and political issues, particularly those relevant to race/ethnicity and gender will be emphasized.

**NURSE 7270 Policy Application for Improved Health Outcomes: 3 semester hours**

Prerequisites: NURSE 6106 or equivalent and NURSE 7230. Students learn how to effectively translate and disseminate knowledge from nursing and other health sciences to policy makers and stakeholders in order to form collaborations to affect change at various levels of the policy process. Topics to be covered include policy analysis, policy development, collaboration and negotiation specific to the policy process, building social and political capital and garnering resources to assure effective policy implementation. Students will utilize population health data, policy analysis, and policy development skills to define, shape and implement culturally competent health policy.

**NURSE 7291 DNP Clinical Scholarship I: 3 semester hours**

Prerequisites: All DNP coursework or Consent of Instructor. This experience provides additional opportunities for practice expertise development to create change in a targeted population and complex healthcare environments. Students will develop skills to assess and diagnose healthcare systems and identify evidenced-based strategies to improve health outcomes. Included in this experience is 150 hours of immersion in their population focused scholarly project.

**NURSE 7292 DNP Clinical Scholarship 2: 3 semester hours**

Prerequisites: NURSE 7291. This experience provides additional opportunities to develop clinical preventative strategies to create change in a targeted population and complex healthcare environments. Students will implement evidenced-based projects to improve health outcomes. Included in this experience is 200 hours of immersion in their population focused scholarly project.



**NURSE 7293 DNP Clinical Scholarship 3: 3 semester hours**

Prerequisites: NURSE 7292. This experience provides additional opportunities to evaluate clinical preventative strategies with a targeted population in a complex healthcare environment. Students will evaluate evidenced-based clinical projects and health outcomes. Included in this experience is 200 hours immersion in their population focused scholarly project.

**NURSE 7299 DNP Seminar: 1-3 semester hours**

Prerequisites: All DNP required course work or Consent of Instructor. This seminar provides students with the opportunity to synthesize and analyze knowledge within the context of the emerging DNP role. Analysis of practice issues may include reflective practice, collaboration, health systems technology, ethics and policy.

**NURSE 7300 Prevention of Injury and Disability: 3 semester hours**

Prerequisites: Graduate status or consent of instructor. This course will examine trends in injury and disability nationally and internationally, relevant theories and conceptual models, the definition and measurement of key concepts, and analysis of interventions proposed for preventing injury and mitigating disability. The role of information and computer technologies in the management of disability will also be considered. Specific content will include age-related injury and disability, disability associated with cardiovascular and other chronic diseases, and the psychosocial contexts of disability, including traumatic stress and its outcomes.

**NURSE 7401 Research Institute I: 2 semester hours**

Prerequisites: Admission to Doctorial Study in Nursing. This course provides an introduction to the process of becoming a research scientist or translational investigator. Content will include the responsible conduct of research, its core elements, relevant policies and procedures, and relevant research. This course also includes the culture of nursing, literature reviews, scholarly writing, technology in the research process, developing a program of scholarship and effective time management.

**NURSE 7403 Developer of the Nurse Scientist: 3 semester hours**

Prerequisite: Admission to doctoral study in nursing. This course addresses the role of the PhD-prepared nurse as scientist, leader, academician, and policy maker. Students will analyze strategies for lifelong learning and development as nurse scientists and will explore avenues for building their programs of scholarship, funding opportunities, and contributing to nursing science in policy and clinical practice. Students will examine ways to collaborate effectively in order to improve health care and health outcomes.

**NURSE 7480 Guided Nursing Research Seminar: 1-6 semester hours**

Prerequisite: Consent of instructor Provides opportunity to work in collaboration with faculty and peers on a focused research topic relevant to nursing.

**NURSE 7481 Development Of Nursing Science And Theory: 3 semester hours**

Prerequisite: Admission to PhD Program. This course focuses on the discipline of nursing, including the evolution of the state of scientific inquiry and knowledge development in nursing. The course includes the aims of nursing science, the nature of nursing knowledge and scientific theories, and a discussion of relationships among theory, research, method, and practice. Students engage in constructive dialogue as they begin to conceptualize nursing phenomena in their area of interest.

**NURSE 7488 Qualitative Methods In Nursing Research: 3 semester hours**

Prerequisites: Admission to PhD program. Examines the relationship between theoretical and philosophical perspectives and selection of appropriate methodologies in research design. Critically explores issues related to innovations in traditional qualitative designs and emerging technologies, rigor and validity, and role of interpretive research in nursing science.

**NURSE 7490 Advanced Nursing Research Designs and Methods: 3 semester hours**

Prerequisite: Admission to the PhD program. This course focuses on development of the research plan including issues in sampling, design, and implementation nursing research. Students will evaluate research methods to answer research questions in their area of interest. Content includes design and analysis issues affecting validity, examination of measurement techniques for assessing validity, reliability, structure of data collection instruments, and criteria for instrument selection. A research proposal will be prepared.

**NURSE 7491 Advanced Nursing Theory Development And Validation: 3 semester hours**

Prerequisite: Admission to PhD program. This course focuses on a systematic study of contemporary nursing science and related theories in knowledge development, and the application of theory construction and validation strategies to specific nursing phenomena of interest. Students create and critically examine theoretical frameworks and models, with emphasis placed on constructing and testing theoretical statements.

**NURSE 7498 Doctoral Seminar: 1-12 semester hours**

Prerequisite: Consent of instructor Presentation and discussion of pertinent methodological and clinical issues related to doctoral research.

**NURSE 7499 Dissertation Research: 1-12 semester hours**

Prerequisite: All required course work; successful completion of comprehensive examination. Investigation of an advanced nature culminating in successful defense of dissertation. Continuous registration is required.

## Graduate Study

### Advanced Nursing Education

#### MSN

The College of Nursing offers master's degree nursing studies in two advanced practice roles: Nurse Educator and Nurse Practitioner. Current Nurse Practitioner emphasis areas include Adult-Geriatric Nurse Practitioner, Family Nurse Practitioner, Psych-Mental Health Nurse Practitioner, Pediatric Nurse Practitioner and Women's Health Nurse Practitioner.

#### Post-MSN Graduate Certificates

Students with master's degrees in nursing who wish to pursue Nurse Practitioner specialization may complete one of the post-MSN graduate certificates. Post-MSN emphasis areas available for study are: Nurse Educator, Adult-Geriatric Nurse Practitioner, Family Nurse Practitioner, Pediatric Nurse Practitioner, Psych-Mental Health Nurse Practitioner, and Women's Health Nurse Practitioner.



## DNP

The DNP program prepares graduates for the highest level of clinical practice, including clinical and translational analysis for improved practice outcomes.

## PhD

The PhD program prepares nurses to pursue theoretical inquiry and conduct original research.

## Master of Science in Nursing

The College of Nursing offers master's degree nursing studies in two advanced practice roles: nurse educator, and nurse practitioner. Students with master's degrees in nursing who wish to pursue one of the nurse practitioner specializations or nurse educator focus may complete one of the Post-MSN graduate certificates. All MSN students complete the MSN core curriculum and functional role required courses. The MSN program is accredited by the Commission on Collegiate Nursing Education.

This graduate program offers students two tracks of study: 1) nurse educators complete a minimum of 41 credit hours with emphasis in the role of the nurse educator; and nurse practitioner's advanced practice nurses (APN) complete a minimum of 43 credit hours with emphasis in a population focus. Graduates with advanced practice nurse nurse practitioner functional roles will be eligible to complete national board certification examinations in their emphasis area functional roles. Current nurse practitioner emphasis areas include Adult Nurse Practitioner, Family Health Nurse Practitioner, Psych-Mental Health Nurse Practitioner, Pediatric Nurse Practitioner and Women's Health Nurse Practitioner. Graduates completing the nurse practitioner options are eligible for recognition as advanced practice nurses in Missouri. Graduates with the Educator functional role preparation will be eligible to sit for the certification exam by the National League for Nursing. Upon completion of the MSN degree requirements, this degree is awarded by the UMSL Graduate School. Building on baccalaureate nursing education, and upon completion of the MSN program or post MSN graduate certificate options, students will be able to:

- Demonstrate integration of advanced knowledge and skills within the context of an advanced professional.
- Provide leadership with interprofessional colleagues engaging strategic partners to improve health care outcomes and patient safety.
- Integrate informatics in the design, implementation and evaluation of population-specific interventions.
- Evaluate research findings to implement and disseminate evidence based professional nursing practice.
- Provide ethically grounded, culturally competent health promotion with diverse populations.

## MSN and Post-MSN Program Requirements

- BSN or MSN from a nationally accredited nursing program
- Minimum cumulative grade point average of 3.0 (4.0 scale)
- Current professional licensure with eligibility for Missouri license
- Successful completion of an undergraduate general statistics course
- Successful completion of an undergraduate health assessment course or equivalent
- Two letters of reference regarding the applicant's academic potential (NP or CNS option)
- Narrative outlining goals (NP or CNS functional role)

- Two years of clinical experience with chosen population are preferred prior to starting clinicals. (NP or CNS functional role)
- Computer literacy
- Neonatal Nurse Practitioner (NNP) students must also submit:
- Evidence of 2 years of neonatal nursing experience within the last 5 years and a minimum of one year experience in a Level 3 NICU
- Evidence of Neonatal Resuscitation Program certification
- Must reside in the United States

Availability of clinical resources may limit the number of applicants accepted to the practitioner options. Students are required to suggest their own preceptors for the Nurse Practitioner Clinical Courses NURSE 6954 (<https://nextbulletin.umsl.edu/collegeofnursing>) and NURSE 6955 (<https://nextbulletin.umsl.edu/collegeofnursing>). Deadline for fall admission is February 15th.

## Degree Requirements

MSN Core Courses (required of all MSN students)

NURSE 6106 (p. 402)	Policy, Organization And Financing In Health Care	3
NURSE 6111 (p. 402)	Theoretical Foundations of Research and Practice	3
NURSE 6120 (p. 402)	Population-Based Foundations of Health	3
NURSE 6130 (p. 402)	Research for Evidence-Based Practice	3
Total Hours		12

## Advanced Nursing Practice Nurse Educator Emphasis area

NURSE 6309 (p. 402)	Role Of The Nurse Educator	3
NURSE 6320 (p. 402)	Learning And Curriculum Development In Nursing	3
NURSE 6321 (p. 402)	Instructional Strategies In Nursing	3
NURSE 6322 (p. 402)	Evaluation Strategies in Nursing	3
NURSE 6518 (p. 402)	Pathophysiology For Advanced Nursing Practice	3
NURSE 6520 (p. 402)	Pharmacology For Advanced Nursing Practice	3
NURSE 6524 (p. 402)	Health Assessment For Advanced Nursing Practice	3
NURSE 6951 (p. 402)	Advanced Intensive Clinical for the Nurse Educator	2
NURSE 6952 (p. 402)	Synthesis Practicum	3
ADULT ED 6410 (p. 402)	The Adult Learner	3
Total Hours		29

## Advance Practice Nurse Leader Emphasis area <sup>1</sup>

NURSE 6409	Role Of The Nurse Leader	3
NURSE 6425	Managed Care Services	3
NURSE 6426	Health Resources Management	3

NURSE 6428	Theory And Practice In Nursing Leadership	3
NURSE 6952	Synthesis Practicum	3
MGMT 5600	Managing People in Organizations	3

<sup>1</sup> The College of Nursing will not be accepting applications to the Nurse Leader program during the 2014-2105 academic year.

### Advance Practice Nurse Practitioner Emphasis area

(Emphasis areas for adult-geriatric nurse practitioner, family nurse practitioner, pediatric nurse practitioner, and women's health nurse practitioner)

NURSE 6509 (p. 402)	Role Of The Clinical Nurse Specialist/Nurse Practitioner	2
NURSE 6518 (p. 402)	Pathophysiology For Advanced Nursing Practice <sup>1</sup>	3
NURSE 6520 (p. 402)	Pharmacology For Advanced Nursing Practice <sup>2</sup>	3
NURSE 6524 (p. 402)	Health Assessment For Advanced Nursing Practice <sup>3</sup>	3
NURSE 6530 (p. 402)	Clinical diagnostics for Advanced Nursing Practice	2

Select one of the following:

NURSE 6739 (p. 402)	Diagnosis and Management of the Adult-Geriatric Patient I	
& NURSE 6740 (p. 402)	and Diagnosis & Mgmt of the Adult-Geriatric Patient II	
NURSE 6741 (p. 402)	Family Health 1 and Family Health II: Diagnosis & Management In	
& NURSE 674 (p. 402)	Adv Nursing Practice	
NURSE 6743 (p. 402)	Child Health 1 and Child Health II: Diagnosis & Mgmt In	
& NURSE 674 (p. 402)	Adv Nursing Practice	
NURSE 6746 (p. 402)	Women's Health 1 and Women's Health II: Diagnosis & Mgmt In	
& NURSE 674 (p. 402)	Adv Nursing Practice	
NURSE 6954 (p. 402)	Advanced Practice Nursing: Internship 1	4
NURSE 6955 (p. 402)	Advanced Practice Nursing: Internship 2	4

<sup>1</sup> Pediatric Nurse Practitioner students take NURSE 6519 (p. 402)Advanced Pediatric Pathophysiology

<sup>2</sup> Pediatric Nurse Practitioner students take NURSE 6529 (p. 402), Advanced Pharmacology for Pediatric Practice

<sup>3</sup> Pediatric Nurse Practitioner students may take NURSE 6526 (p. 402), Advanced Pediatric Physical Assessment

### Advanced Practice Nurse Neonate Nurse Emphasis area

Students in this emphasis area complete the MSN Core Courses on the UMSL campus and the following neonatal specialty courses through UMKC:

N5547N	Neonatal Assessment	
N5548N	Neonatal Physiology/Pathophysiology	
N5549N	Neonatal Pharmacology	
N5564N	Neonatal Nursing I	
N5566N	Neonatal Nursing II	
N5572NI	Preceptorship I	
N5574II	Preceptorship II	

### Psychiatric-Mental Health Emphasis Area

(pending CBHE approval)

NURSE 6509	Role Of The Clinical Nurse Specialist/Nurse Practitioner	2
NURSE 6518	Pathophysiology For Advanced Nursing Practice	3
NURSE 6520	Pharmacology For Advanced Nursing Practice	3
NURSE 6524	Health Assessment For Advanced Nursing Practice	3
NURSE 6530	Clinical diagnostics for Advanced Nursing Practice	2
NURSE 6737	Psychiatric-Mental Health I: Diagnosis & Management In Advanced Nursing Practice	5
NURSE 6738	Psychiatric-Mental Health II: Diagnosis & Management In Advanced Nursing Practice	5
NURSE 6954	Advanced Practice Nursing: Internship 1	4
NURSE 6955	Advanced Practice Nursing: Internship 2	4
Total Hours		31

### Post-MSN Graduate Certificates

Post-MSN Graduate Certificate requirements are tailored to the individual student, depending on past academic work, experience, the student's goals, and specialty requirements. Upon completion of the post-MSN requirements, a graduate certificate is awarded by the College of Nursing and Graduate School. Graduates are eligible to apply to take board certification exams in the advanced practice role and population for which they have been prepared. Post-MSN emphasis areas available for study are:

- Nurse Educator, Adult-Geriatric Nurse Practitioner, Family Nurse Practitioner, Pediatric Nurse Practitioner, Psych-Mental Health Nurse Practitioner, and Women's Health Nurse Practitioner.
- Students may be awarded credit for previous MSN core courses based upon successful completion of equivalent courses in their prior master's program, if these courses were completed less than 6 years ago.
- A minimum of 18 graduate credit hours are required for the post-MSN Graduate Certificate as stipulated in the Graduate School policies.

### Post-MSN Adult-Geriatric Nurse Practitioner Certificate

NURSE 6509 (p. 402)	Role Of The Clinical Nurse Specialist/Nurse Practitioner	2
NURSE 6518 (p. 402)	Pathophysiology For Advanced Nursing Practice	3
NURSE 6524 (p. 402)	Health Assessment For Advanced Nursing Practice	3
NURSE 6520 (p. 402)	Pharmacology For Advanced Nursing Practice	3
NURSE 6530 (p. 402)	Clinical diagnostics for Advanced Nursing Practice	2

NURSE 6739 (p. 402)	Diagnosis and Management of the Adult-Geriatric Patient I	5
NURSE 6740 (p. 402)	Diagnosis & Mgmt of the Adult-Geriatric Patient II	5
NURSE 6954 (p. 402)	Advanced Practice Nursing: Internship 1	4
NURSE 6955 (p. 402)	Advanced Practice Nursing: Internship 2	4
Total Hours		31

### Post-MSN Family Nurse Practitioner Certificate

NURSE 6509 (p. 402)	Role Of The Clinical Nurse Specialist/Nurse Practitioner	2
NURSE 6518 (p. 402)	Pathophysiology For Advanced Nursing Practice	3
NURSE 6524 (p. 402)	Health Assessment For Advanced Nursing Practice	3
NURSE 6520 (p. 402)	Pharmacology For Advanced Nursing Practice	3
NURSE 6530 (p. 402)	Clinical diagnostics for Advanced Nursing Practice	2
NURSE 6741 (p. 402)	Family Health 1	5
NURSE 6742 (p. 402)	Family Health II: Diagnosis & Management In Adv Nursing Practice	5
NURSE 6954 (p. 402)	Advanced Practice Nursing: Internship 1	4
NURSE 6955 (p. 402)	Advanced Practice Nursing: Internship 2	4
Total Hours		31

### Post-MSN Pediatric Nurse Practitioner Certificate

NURSE 6509 (p. 402)	Role Of The Clinical Nurse Specialist/Nurse Practitioner	2
NURSE 6519 (p. 402)	Advanced Pediatric Pathophysiology	3
NURSE 6526 (p. 402)	Advanced Health Assessment For Pediatric Nursing Practice	3
NURSE 6529 (p. 402)	Advanced Pharmacology For Pediatric Nursing Practice	3
NURSE 6530 (p. 402)	Clinical diagnostics for Advanced Nursing Practice	2
NURSE 6743 (p. 402)	Child Health 1	5
NURSE 6744 (p. 402)	Child Health II: Diagnosis & Mgmt In Advanced Nursing Practice	5
NURSE 6954 (p. 402)	Advanced Practice Nursing: Internship 1	4
NURSE 6955 (p. 402)	Advanced Practice Nursing: Internship 2	4
Total Hours		31

### Post-MSN Psychiatric-Mental Health Nurse Practitioner Certificate

(pending CBHE approval)

NURSE 6509	Role Of The Clinical Nurse Specialist/Nurse Practitioner	2
NURSE 6518	Pathophysiology For Advanced Nursing Practice	3
NURSE 6520	Pharmacology For Advanced Nursing Practice	3
NURSE 6524	Health Assessment For Advanced Nursing Practice	3
NURSE 6530	Clinical diagnostics for Advanced Nursing Practice	2
NURSE 6737	Psychiatric-Mental Health I: Diagnosis & Management In Advanced Nursing Practice	5
NURSE 6738	Psychiatric-Mental Health II: Diagnosis & Management In Advanced Nursing Practice	5
NURSE 6954	Advanced Practice Nursing: Internship 1	4
NURSE 6955	Advanced Practice Nursing: Internship 2	4
Total Hours		31

### Post-MSN Women's Health Nurse Practitioner Certificate

NURSE 6509 (p. 402)	Role Of The Clinical Nurse Specialist/Nurse Practitioner	2
NURSE 6518 (p. 402)	Pathophysiology For Advanced Nursing Practice	3
NURSE 6524 (p. 402)	Health Assessment For Advanced Nursing Practice	3
NURSE 6520 (p. 402)	Pharmacology For Advanced Nursing Practice	3
NURSE 6530 (p. 402)	Clinical diagnostics for Advanced Nursing Practice	2
NURSE 6746 (p. 402)	Women's Health 1	5
NURSE 6747 (p. 402)	Women's Health II: Diagnosis & Mgmt In Advanced Nursing Practice	5
NURSE 6954 (p. 402)	Advanced Practice Nursing: Internship 1	4
NURSE 6955 (p. 402)	Advanced Practice Nursing: Internship 2	4
Total Hours		31

### Post-MSN Advanced Nursing Practice with Educator Functional Role

(pending CBHE approval)

NURSE 6309	Role Of The Nurse Educator	3
NURSE 6320	Learning And Curriculum Development In Nursing	3
NURSE 6321	Instructional Strategies In Nursing	3
NURSE 6322	Evaluation Strategies in Nursing	3
NURSE 6518	Pathophysiology For Advanced Nursing Practice	3
NURSE 6520	Pharmacology For Advanced Nursing Practice	3
NURSE 6524	Health Assessment For Advanced Nursing Practice	3
NURSE 6951	Advanced Intensive Clinical for the Nurse Educator	2
NURSE 6952	Synthesis Practicum	3

ADULT ED 6410 The Adult Learner	3
Total Hours	29

## Doctor of Nursing Practice (DNP)

The DNP program is an online program that focuses on the preparation of leaders in clinical nursing who can improve quality of care for individuals and populations through advanced practice and through improving systems of care. The curriculum is based on national standards for DNP education. The DNP is offered cooperatively with the University of Missouri-Kansas City and the University of Missouri-Columbia and is based on the needs of each campus and their communities of interest. The DNP program is accredited by the Commission on Collegiate Nursing Education.

The DNP program is designed for graduates to attain the following program outcomes:

- Integrate nursing science, informatics, research and ethical and legal principles to provide excellence in advanced clinical nursing practice.
- Translate research science to improve healthcare delivery and health outcomes.
- Provide multidisciplinary leadership through analysis of critical indicators and/or health care delivery systems to optimize patient care and safety.
- Influence health policy-making to improve health outcomes, shape healthcare delivery, and remove barriers to healthcare.
- Develop and evaluate strategies to establish best practices in a specific setting.

Courses are designed to support nursing science, clinical research, leadership and a specialty area. Concepts woven throughout the courses include methodologies for translating research into practice, using culturally competent leadership techniques with diverse and underserved populations, advanced nursing science and clinical scholarship, clinical prevention, advanced nursing practice and clinical decision making, understanding organizational systems and change, and policy development. The DNP program is available for certification-eligible advanced practice nurses who have completed an accredited MSN degree or post-MSN certification program. This program is administered by the UMSL Graduate School.

## Admission Requirements

The deadline for DNP applications for admission is April 1. Admission may be considered at a later date depending on space.

- Graduation from an MSN program or post-MSN APN certificate program with national nursing accreditation
- GPA of 3.0 or higher
- 2 Reference letters
- A proposed DNP project that matches faculty expertise
- Interview by invitation
- Evidence of eligibility for advanced practice certification or current certification in an advanced practice role
- Current or eligible for advanced practice nursing recognition in Missouri or eligible for recognition as an advanced practice nurse in Missouri.

The DNP curriculum is divided into 4 general categories:

- Leadership development and change
- Policy

- Practice-focused evaluation/translational research
- Clinical excellence

A graduate level general statistics course completed within the previous five years is a prerequisite to NURSE 7230, Epidemiology and is required prior to the first fall semester. Such a course may be taken concurrently with NURSE 7401 Research Institute I during the first summer semester of the program.

## Degree Requirements

Completion of the DNP program requires the following courses:

NURSE 7401	Research Institute I	2
NURSE 7200	Nursing Science	3
NURSE 7220	Leadership in Practice	3
NURSE 7230	Epidemiology	3
NURSE 7240	Health Informatics	3
NURSE 7250	Frameworks for Health Care Delivery and Policy	3
NURSE 7260	Program and Practice Evaluation	3
NURSE 7291	DNP Clinical Scholarship I	3
NURSE 7292	DNP Clinical Scholarship 2	3
NURSE 7293	DNP Clinical Scholarship 3	3
NURSE 7299	DNP Seminar	1-3
Total Hours		30-32

Near the end of the DNP program, students will complete a clinically focused project that satisfies the Graduate School dissertation requirements. This project is completed while the student is enrolled in:

NURSE 7291	DNP Clinical Scholarship I	3
NURSE 7292	DNP Clinical Scholarship 2	3
NURSE 7293	DNP Clinical Scholarship 3	3
NURSE 7299	DNP Seminar	1-3
Total Hours		10-12

Total Minimum Graduate Credit Hours 30

## Doctor of Philosophy in Nursing (Ph.D.)

The Ph.D. in nursing program at the University of Missouri–St. Louis affords students with academic, clinical, and research resources of the University of Missouri system through a cooperative arrangement with the schools of nursing at the University of Missouri. Upon completion of all degree requirements, the Ph.D. degree is awarded by the UMSL Graduate School.

The Ph.D. in nursing curriculum is divided into these general categories: nursing science and theory, nursing research methods and statistics, cognates and dissertation. The Ph.D. program is designed for graduates to attain the following outcomes:

- Develop skills and knowledge to establish a program of research and scholarship.
- Design, conduct and disseminate a dissertation that contributes to nursing knowledge.
- Translate nursing research into practice and policy.
- Assume leadership roles in health care by collaborations and partnerships with institutions in the greater St. Louis region.



- Improve the health care quality of life of individuals/families/communities regionally, nationally and internationally.

## Admission Requirements

Students are admitted each semester depending on space. Admission may be considered at a later date depending on space.

Applicants are evaluated based on the following criteria:

- Graduation from a nationally accredited baccalaureate program with 3.2 minimum GPA (4.0) scale. (BSN to PhD track) OR from a nationally accredited master's program with a 3.5 minimum GPA (4.0) scale. (MSN to PhD track)
- Satisfactory Graduate Record Examination (GRE) scores
- Graduate level general statistics course within the last five years
- Two letters of reference
- Original essay on professional goals and research interests
- Interview by invitation

International applicants must meet minimum requirements on tests of written and spoken English (TOEFL, Minimum 550 or better is desired). International students must also apply through the International Student Services Office.

## Degree Requirements

While each program of study is individualized, BSN to PhD students complete a minimum of 65 hours of graduate-level course work. MSN to PhD students complete 47 credit hours and 18 to a maximum of 30 M.S.N. hours, which support the program of study, are individually evaluated to determine eligibility for the application of candidacy. The overall Ph.D. in nursing program design includes nursing science and theory, research methods and statistics, cognates or support courses and dissertation.

Nursing Science, Theory, and Discipline of Nursing: 26 or more nursing credits including:

- Nursing science
- Advanced nursing theory development and validation
- Discipline of nursing

Nursing Research Methods: 12 or more nursing credits including:

- Quantitative Methods in nursing
- Qualitative Methods in nursing
- Biostatistics

Cognates: 15 or more credits outside of the discipline of nursing which support the selected dissertation topic.

Dissertation: Minimum is 12 credits.

## Courses

### ***NURSE 1010 Orientation To Nursing: 0 semester hours***

Prerequisites: Admission to four-year baccalaureate program. This mandatory eight-week introduction to the nursing program provides a comprehensive orientation to the program. Students are introduced to the academic and clinical expectations of the curriculum. Concerns critical for academic success (i.e., time management, effective study skills, stress management and dealing with test anxiety) are addressed.

### ***NURSE 2101 Introduction to Nursing: 2 semester hours***

This course introduces the historical and theoretical development of nursing as a discipline. Nursing is examined as a dynamic practice profession. Variables that influence nursing and health care are discussed. Concepts and skills introduced in this course guide the student's educational experience within the nursing major.

### ***NURSE 2103 Nutrition And Health: 3 semester hours***

This course examines nutritional needs throughout the life span with emphasis on nutritional principles related to health promotion and protection. Content includes assimilation, digestion and absorption of nutrients and cultural and economic influences on dietary practices.

### ***NURSE 2105 Communication In The Nursing Profession: 3 semester hours***

Prerequisites: none This course focuses on the development of communication abilities utilized in professional nursing. The individual's relationship with self, others and groups is discussed. Students learn verbal and non-verbal communication skills, self-awareness, and sensitivity to others. Interpersonal skills are introduced to enable the student to develop effective human caring relationships with a diverse population of clients and colleagues.

### ***NURSE 3101 Nursing And Health: 6 semester hours***

Prerequisites: BIOL 1131; BIOL 1141; CHEM 1052; NURSE 1010, NURSE 3106; NURSE 3110; NURSE 3111 An introduction to the discipline of nursing, the historical and theoretical development of nursing is explored with an emphasis on critical thinking, the teaching/learning process, and foundational practice concepts. Through modular laboratory experiences, the student acquires psychomotor skills to provide safe and effective nursing care to clients promoting health and wellness. Includes classroom, laboratory and clinical experiences.

### ***NURSE 3106 Assessment Of Clients In Health And Illness: 4 semester hours***

Prerequisites: BIOL 1131; BIOL 1141; BIOL 1162; CHEM 1052; PSYCH 1268; NURSE 1010. This course integrates theoretical knowledge and interpersonal skills in the assessment of clients, focusing on differentiating normal from abnormal findings. It emphasizes the use of problem solving, critical thinking and cultural competency in identifying multidimensional health variations across the life span. The course includes classroom and laboratory experiences.

### ***NURSE 3110 Pathophysiological Bases Of Nursing Practice: 3 semester hours***

Prerequisites: BIOL 1131, BIOL 1141, BIOL 1162, CHEM 1052 (or equivalent); NURSE 1010 This course focuses on the nature of disease, its causes and the bodily changes that accompany it. The course includes a study of general principles of disease, specific diseases of individual organs and systems and the clinical implications.

### ***NURSE 3111 Pharmacotherapeutics In Nursing Practice: 3 semester hours***

Prerequisites: BIOL 1141, BIOL 1162, CHEM 1052, NURSE 1010; pre/co requisite: NURSE 3110. This course introduces key terminology, legal foundations, general principles and clinical applications of pharmacology.

### ***NURSE 3120 Foundations of Nursing: 7 semester hours***

Prerequisites: All general education requirements and accelerated nursing option prerequisite non-nursing courses. This course introduces the student to the theoretical concepts and foundations of professional nursing practice. Utilizing an integrated approach, health promotion and protection throughout the lifespan are explored and supported using theories of nursing practice, health assessment of well individuals, and general principles and concepts of pharmacology and critical thinking.

**NURSE 3121 Clinical Foundations of Nursing: 3 semester hours**

Prerequisites: NURSE 3120. This course assists in the development and application of clinical reasoning in the lab, clinical agency, and simulation environments. Through clinical learning experiences, the student acquires basic psychomotor, communication, and medication administration skills. The student applies these skills in the provision of safe and effective nursing care to clients while promoting health, wellness, and clinical reasoning.

**NURSE 3205 Adult Health Nursing I: 5 semester hours**

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on the nursing care of the adult experiencing selected pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to immune responses, problems of oxygenation: ventilation, transport and perfusion: kidney function; regulatory mechanisms and digestion absorption and elimination. emphasis is placed on health restoration, maintenance and support as well as the continued development of the nurse-client relationship, critical thinking processes, and research-based nursing practice. This course includes classroom and clinical activities in a variety of settings.

**NURSE 3206 Adult Health Nursing II: 5 semester hours**

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on the nursing care of the adult experiencing selected pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to endocrine, sensory-perceptual, gynecological, and genitourinary functions. Emphasis is placed on health restoration, maintenance and support as well as the continued development of the nurse-client relationship, critical thinking processes, and research-based nursing practice. This course includes classroom and clinical activities in a variety of settings.

**NURSE 3214 Psychiatric Mental Health Nursing: 4 semester hours**

Prerequisites: All 3100-level nursing courses; PSYCH 1268. This course focuses on health and illness across the lifespan of clients who have acute and chronic emotional and psychosocial difficulties and psychiatric illnesses. The course emphasizes development of students' decisional capabilities, self-awareness and professional behaviors as they utilize theory and research from nursing, psychology and related disciplines for the provision of nursing care to individuals, families, & groups. Clinical experiences in community and acute care settings are designed for students to engage in individual and group strategies that promote and maintain mental health. Course includes classroom and clinical activities in a variety of settings.

**NURSE 3215 Nursing Of Women And Childbearing Families: 4 semester hours**

Prerequisites: All 3100 level nursing courses, PSYCH 1268. Focuses on the childbearing family and women's reproductive health, including family dynamics and growth and development. Health promotion, protection, maintenance and restoration are covered in experiences that include hospital and community settings. Health care policy and systems as relevant to these populations are included. Course includes classroom and clinical activities in a variety of settings.

**NURSE 3216 Child And Family Health Nursing: 4 semester hours**

Prerequisites: All 3100 level nursing courses, PSYCH 1268. This course focuses on pediatric health and illness with emphasis on family dynamics, growth and development and communication with children and their families. Health promotion, protection, restoration, maintenance and support concepts are covered in experiences that include hospital and community settings. Health care policy and systems are studied as relevant to this population. Course includes classroom and clinical activities in a variety of settings.

**NURSE 3324 Sociology Of The Family: 3 semester hours**

Same as SOC 3224. Prerequisite: SOC 1010 or consent of instructor. The study of patterns of close relationships, and how these relationships are influenced by larger social forces. Topics include: love, dating, mate selection, cohabitation, alternative lifestyles, working families, parenting, single mothers, families in crisis, domestic violence, and divorce. Universal and variable aspects of family organization, family role systems, and changes in family social structure.

**NURSE 3330 Nursing of Adults I: 5 semester hours**

Prerequisites: NURSE 3120, NURSE 3121. This course focuses on the nursing care of the adult experiencing health problems affecting body regulatory mechanisms. These mechanisms are related to perioperative processes, immune processes, problems of oxygenation, cardiovascular alterations, fluid and electrolyte/acid-base imbalances, integumentary problems, abnormalities of the reproductive system and genetics, oncology and hematology problems. This course also incorporates relevant concepts of pharmacology and pathophysiology related to these conditions. Emphasis is placed on health promotion and restoration, maintenance and support as well as the continued development of the nurse-client relationship, clinical reasoning, and evidence-based nursing practice across the adult life span.

**NURSE 3331 Clinical Nursing of Adults I: 3 semester hours**

Prerequisites: NURSE 3330. This course focuses on the nursing care of adults in the lab, clinical agency, and simulation environments. Utilizing an integrated approach, advanced nursing skills and assessment techniques for adult clients are mastered in perioperative processes, immune processes, problems of oxygenation, hematology, cardiovascular alterations, fluid and electrolyte/acid-base imbalances, integumentary problems, abnormalities of the reproductive system, genetics and oncology problems. Clinical reasoning is developed and applied in order to provide safe and effective nursing care to adult clients across the health/illness continuum.

**NURSE 3340 Behavioral Health Nursing: 2.5 semester hours**

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on health and illness across the lifespan of clients who have acute and chronic psychosocial and behavioral health issues and specific psychiatric illnesses. An emphasis is placed on the nurse/client relationship in behavioral health promotion, restoration, maintenance and support.

**NURSE 3341 Clinical Behavioral Health Nursing: 1.5 semester hour**

Prerequisites: NURSE 3340. In this course students utilize theory and evidence from nursing and related disciplines in the provision of nursing care to individuals, families, and groups with psychiatric and behavioral health problems. Clinical experiences in community and acute care settings are designed so that students can engage in individual and group strategies that promote and maintain mental health.

**NURSE 3350 Nursing of Adults II: 5 semester hours**

Prerequisites: NURSE 3120, NURSE 3121. This course focuses on the nursing care for the adult experiencing complex pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to endocrine, neurological, musculoskeletal, gastrointestinal, sensory-perceptual, male reproductive and genitourinary problems. This course also incorporates relevant concepts of pathophysiology and pharmacology related to these conditions. Emphasis is placed on health promotion and restoration, maintenance and support, as well as the continued development of the nurse-client relationship, critical thinking and evidence-based nursing practice across the adult life span.

**NURSE 3351 Clinical Nursing of Adults II: 3 semester hours**

Prerequisites: NURSE 3350. This course focuses on the nursing care of adults in the lab, clinical agency and simulation environments. Utilizing an integrated approach, complex psychomotor skills and assessment techniques for adult clients are mastered in patients with musculoskeletal problems, endocrine alterations, renal/genitourinary problems, sensory-perceptual problems, and liver problems. Clinical reasoning is developed and applied in order to provide safe and effective nursing care to adult clients with complex problems across the health/illness continuum.

**NURSE 3360 Maternal-Child Nursing: 5 semester hours**

Prerequisites: PSYCH 1268, NURSE 3120, NURSE 3121. This course focuses on women's reproductive health, childbearing and child rearing families, as well as the health and illness of children from conception through adolescence. There is an emphasis on family dynamics, growth and development, and communication with children and their families. Health care policy and systems are incorporated as they relate to diverse populations.

**NURSE 3361 Clinical Maternal-Child Nursing: 3 semester hours**

Prerequisites: NURSE 3360. Health promotion, protection, restoration, and maintenance for the mother-child and family care are addressed in experiences that include nursing skills lab, hospital agency and a variety of community settings.

**NURSE 3799 Quantitative Analysis In The Health Sciences: 3 semester hours**

Prerequisites: MATH 1030 or equivalent. This course focuses on concepts and applications of statistics in the health sciences. Topics include descriptive and inferential statistics, probability distributions of random variables, sampling and estimation. The course uses examples and content from health sciences to provide the basic concept structure for quantitative analysis.

**NURSE 3804 Ethical And Legal Dimensions Of Nursing Practice: 3 semester hours**

Prerequisites: Philosophy (3 credits). This course explores the ethical and legal dimensions of nursing practice. The relationship between ethical and legal issues is examined within nursing situations. The student participates in dialogue addressing ethical-legal issues in professional nursing practice to explore personal values, increase sensitivity to others and to develop ethical reasoning abilities.

**NURSE 3807 Nursing Research - Evidence Based Nursing Practice: 3 semester hours**

Prerequisite: NURSE 3799 (or equivalent). This course prepares nurses to provide evidence based care to patients among the rapid advances in the science and technology of healthcare. This course provides a basic understanding of how evidence is developed, including the research process, clinical judgment, interprofessional perspectives, and patient preference as applied to nursing practice. Students will learn a systematic method to evaluate and apply research findings and other evidence in designing and implementing nursing care that is multidimensional, high quality, and cost-effective.

**NURSE 3808 Management And Leadership In Nursing: 2-3 semester hours**

Prerequisites: All 3000 level nursing courses; ECON 1000 or (equivalent) This course prepares the nurse to coordinate and manage client care in diverse health care settings. Emphasis is placed on leadership and management theory and related skills, collaboration, delegation, coordination, and evaluation of multi-disciplinary work and the application of outcome-based nursing practice.

**NURSE 3817 Introduction To Nursing And Health Informatics: 3 semester hours**

This online laboratory course establishes competency in fundamental information management and computer technology skills. It enables students to use existing information systems and available information to manage nursing practice. Students critically evaluate technology, information, and its sources; use decision support systems designed for clinical decision making; and focus on the representation of nursing data, information, and knowledge.

**NURSE 3820 Introduction to Evidence-Based Nursing Practice and Informatics: 5 semester hours**

Prerequisites: NURSE 3799 or equivalent statistics course. This course will focus on current review of qualitative and quantitative nursing literature and research utilization through evidence-based practice and establish competency in fundamental information management and technology. Students will examine the research and evidence-based process through analysis and critique of nursing literature; critically evaluate technology, information, and its sources; use decision support systems designed for clinical and ethical decision making; and focus on the presentation of nursing data, information, and knowledge.

**NURSE 3873 Guided Study In Nursing: 1-3 semester hours**

This course is an in-depth independent study of selected topics in nursing under the guidance of a specific instructor. No more than six hours may be taken under this option.

**NURSE 3900 Dimensions Of Professional Nursing: 3 semester hours**

Prerequisites: Admission to the College as RN This course investigates the roles and responsibilities of the professional nurse within a rapidly changing health care delivery system. Key issues are explored with emphasis on health promotion and health. Graduates of diploma nursing programs will be awarded college credit for successful validation of basic nursing knowledge as part of this course.

**NURSE 3920 Health Assessment: 3 semester hours**

Prerequisites: NURSE 3900 and NURSE 3817 (may be taken concurrently) or consent of instructor This laboratory course focuses on the knowledge, communication abilities, and technical skills necessary for comprehensive assessment of individuals of all ages.

**NURSE 4300 Community Health Nursing: 4 semester hours**

Prerequisites: All 3000 level nursing courses This course provides a conceptual foundation for nursing that recognizes the community as client in society. The course examines socioeconomic, environmental, epidemiological, and legislative influences, ethical/legal issues, and the impact of health beliefs and practices on health promotion and protection in communities and society. The student applies various theories and concepts when encountering families, groups and communities with diverse value systems and cultural backgrounds. Course includes classroom and clinical activities in a variety of settings.

**NURSE 4310 Senior Synthesis: 6 semester hours**

Prerequisites: All 3000 level nursing courses; NURSE 4300 and NURSE 3808 may be taken concurrently. This course integrates theory and practice from previous nursing and general education courses with the goal of preparing the student for entry into professional nursing practice. Within a seminar context, students explore a variety of clinical and professional nursing topics. The course includes research-based strategies utilized for health promotion and protection, health restoration, maintenance and support. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems. Course includes classroom and clinical experiences in a variety of settings. Not for graduate credit.

**NURSE 4520 Population Focused Nursing: 2 semester hours**

Prerequisites: All 3300 level nursing courses, NURSE 3804, NURSE 3820. This course provides a conceptual foundation for nursing that recognizes populations in society. The course examines the effect of socioeconomic and environmental, epidemiological factors, and the impact of health beliefs and practices on health promotion and protection in populations. This course also focuses on epidemiological factors and legislative influences in diverse populations.

**NURSE 4521 Clinical Population Focused Nursing: 2 semester hours**

Prerequisites: NURSE 4520. This clinical course focuses on the nursing care of populations in various settings. The student applies population-based theories and concepts when encountering individuals, families, groups and populations with diverse value systems and cultural backgrounds.

**NURSE 4530 Leadership Development and Professional Nursing Practice: 4 semester hours**

Prerequisites: All 3300 level nursing courses, NURSE 3804, NURSE 3820. This course integrates theory and practice from previous nursing and general education courses with the goal of preparing the student for entry into professional nursing practice. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems. Topics will include leadership, management theory and related skills, collaboration, delegation, coordination, and evaluation of outcome based interdisciplinary nursing practice.

**NURSE 4531 Clinical Leadership Development and Professional Nursing Practice: 4 semester hours**

Prerequisites: NURSE 4530. This clinical course includes a variety of experiences to prepare the student nurse to lead, coordinate, and manage client care in diverse health care settings. This course includes research-based strategies utilized for health promotion and protection, health restoration, maintenance, and support. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems.

**NURSE 4720 Perioperative Nursing: 3 semester hours**

PREREQUISITES: Consent of the instructor. Provides experiences in preoperative, intraoperative, and postoperative settings. Includes a clinical component.

**NURSE 4722 Transcultural Nursing: 3 semester hours**

Prerequisite: Consent of the Instructor. Examines transcultural nursing concepts, theories and practices in relationship to human caring. Focuses on application and analysis of health care and scope of practice within selected cultural contexts. Includes practicum experiences.

**NURSE 4723 Nurse Externship: 3 semester hours**

Prerequisite: Senior level status; GPA 3.0 (4.0 scale) This course provides the opportunity to apply theoretical and conceptual knowledge and skills in a structured clinical environment under the guidance of a mentor.

**NURSE 4724 Emergency/Trauma Nursing: 3 semester hours**

Prerequisites: NURSE 3205 and NURSE 3206 or consent of instructor. This course provides a framework for the roles and responsibilities of the professional registered nurse in Emergency and Trauma nursing care.

**NURSE 4726 Parish Nursing: 3 semester hours**

Prerequisites: All 2000 level nursing courses, NURSE 3205 and NURSE 3214. This course provides a conceptual foundation that recognizes a speciality of nursing practice that combines professional nursing and health ministry. It examines four major concepts: professionalism; health and wholeness; spirituality; and community as it relates to culture and diversity. The course includes classroom discussion, individual reflection and community based learning experiences.

**NURSE 4730 Nursing Care At The End Of Life: 3 semester hours**

Prerequisites for Nursing Students NURSE 3205 and NURSE 3214. All others by consent of instructor. This course focuses on the nursing care of terminally ill patients and their families. Topics explored will include the impact of personal values and beliefs about death, physiology of end stage disease processes, symptom assessment and management, psychosocial and spiritual support, consideration in special patient populations, societal issues and trends in end of life care, ethical considerations in caring for the dying patient, grief and bereavement processes, and the role nursing in end of life care across settings.

**NURSE 4741 Advanced Nrsng Assmt & Mgt Of Clients W/Cardiac Dysrhythmias: 3 semester hours**

PREREQUISITES: Senior status Focuses on advanced nursing assessment and management of clients with cardiac rhythm problems and conduction disturbances. Includes a clinical component.

**NURSE 4742 Critical Care Nursing Of The Adult: 3 semester hours**

Prerequisites: RN or completion of NURSE 3205 and NURSE 3206 (or equivalent). Focuses on health restoration, health maintenance, and health support of individuals with dysfunctions or trauma to major organ systems. Emphasis is on understanding pathophysiology and psychosocial processes related to nursing and collaborative interventions, and the development of a functional framework for data organization and analysis.

**NURSE 4901 Family And Community Nursing: 5 semester hours**

Prerequisites: NURSE 3900, NURSE 3817 and NURSE 3920 This practicum course introduces the concepts, principles, skills, and professional nursing roles essential to practice community-based professional nursing with families and groups.

**NURSE 4905 Values In Professional Nursing: 3 semester hours**

Prerequisites: All 3000 level RN/BSN nursing courses or consent of instructor Explores values and beliefs as they shape professional nursing practice and influence clinical decision making and interventions in the evolving health care system. Attention is given to the impact of sociocultural factors and health/illness beliefs and practices of the diverse populations served by the professional nurse. Students examine their own understanding of the moral nature of professional nursing within the context of a diverse society.

**NURSE 4911 Synthesis In Nursing Practice: 5 semester hours**

Prerequisites: NURSE 4901. This practicum course focuses on community-based application and synthesis of professional nursing roles and responsibilities with selected populations determined to be at risk for a variety of health related problems. The course includes assessment of cognitive and affective growth achieved while in the BSN Completion Program.

**NURSE 6000 Statistics in Nursing & Health Sciences: 3 semester hours**

Prerequisites: Admission to graduate study in nursing or consent of instructor. Provides students with a graduate level understanding of quantitative methods and their relationship to research in nursing and health sciences. Students will conduct lab data analysis based on the topics covered in the class and learn how to generate specific research questions and conduct basic statistical analysis.



***NURSE 6106 Policy, Organization And Financing In Health Care: 3 semester hours***

Prerequisites: Admission to MSN program. This course presents an overview of health care policy, organization, and financing with emphasis on current health care trends. The focus is on the design and implementation of health care delivery systems with the goal of providing safe, quality, and informatics driven cost-effective care. Emphasis is placed on the development of a leadership role in managing human, financial, and physical health care resources. The format includes pertinent information concerning primary health care and public health issues, the relationship between these issues, and improving health care delivery and outcomes.

***NURSE 6111 Theoretical Foundations of Research and Practice: 3 semester hours***

Prerequisites: Admission to the Master's program in the college of Nursing. This course provides an overview of selected theories and frameworks that can be used to guide advanced practice nurses in facilitating their learning and use of evidence-based practice. It is centered on the explication of major theories that will be used in practice. Nursing middle-range and practice theories, theories related to cultural aspects of care, population-based theories, change theories, and informatics theories such as bioinformatics and genetics will form the foundation for advanced practice.

***NURSE 6112 Nursing Research Methods: 3 semester hours***

Prerequisites: NURSE 3799 or equivalent; NURSE 6111 may be taken concurrently This course is designed to provide the student with the skills required to be a consumer of nursing research. These include the fundamentals of scientific inquiry in nursing as well as the information necessary to understand and evaluate nursing research. Principles and techniques common to scientific investigation are applied to nursing. Researchable problems are developed.

***NURSE 6114 Evidence-Based Nursing: 3 semester hours***

Prerequisite: NURSE 6112 This course prepares nurses to review existing nursing research about a nursing practice problem and to propose appropriate changes in current nursing practice. The theoretical basis for evidence-based nursing with respect to screening, diagnosis, selection of treatment alternatives, and prognosis are examined. Research designs such as case control and cohort studies are included. Practical application of change in nursing is examined, including formative and summative aspects of evaluation. Opportunities are provided to develop a plan to implement evidence-based change in an area of nursing practice.

***NURSE 6120 Population-Based Foundations of Health: 3 semester hours***

Prerequisite: Admission to MSN. The purpose of this course is to provide students with an advanced nursing practice perspective on providing population-based nursing care. This course includes an evaluation of human and cultural diversity in the health-illness continuum. Core concepts include ethics; theories of health and health promotion, protection, restoration, and maintenance; and the support needed for a peaceful death. Coursework will focus on community/population-based data on epidemiology, disease and injury prevention, health education, growth and development, and family systems.

***NURSE 6130 Research for Evidence-Based Practice: 3 semester hours***

Prerequisites: Admission to MSN. This course provides students with skills required to systematically explore and evaluate current nursing knowledge for scientific and clinical merit to promote evidence-based nursing practice. Students select a researchable problem, review and critique relevant literature, consider ethical and cultural issues, examine methodological procedures associated with scientific investigation, and explore potential barriers to evidence-based practice. Students critically analyze differing research paradigms and current issues surrounding research and evidence-based practice.

***NURSE 6144 Health Promotion and Cultural Diversity: 3 semester hours***

Prerequisites: Admission to the MSN Program. This course provides graduate nursing students with knowledge related to the concepts of health promotion, health protection, cultural diversity, and moral/ethical influences across the lifespan. Core concepts for the course include theories of health and health promotion and protection, epidemiology, disease and injury prevention, health education, cultural diversity, growth and development, nutrition and family systems. The students will explore values clarification and ethical analysis.

***NURSE 6309 Role Of The Nurse Educator: 3 semester hours***

Prerequisites: Admission to the MSN program or consent of instructor. This course will explore the roles, responsibilities, and functions of the nurse educator. Emphasis will be placed on the development and evaluation of the interactive nature of teaching and learning in a variety of settings.

***NURSE 6320 Learning And Curriculum Development In Nursing: 3 semester hours***

Prerequisites: NURSE 6309. This course examines theoretical foundations, principles, and issues in curriculum design. Explores systematic evaluation of curriculum at all levels.

***NURSE 6321 Instructional Strategies In Nursing: 3 semester hours***

Prerequisites: NURSE 6309 or consent of Instructor; must be taken concurrently with NURSE 6320. This course focuses on the development and analysis of teaching and learning strategies in nursing education. Adult learning principles of teaching and learning will be incorporated into the innovative strategies developed within this course. Integration of new technology in instructional design and delivery will be highlighted. Evaluation methods of both teacher and learner will be explored.

***NURSE 6322 Evaluation Strategies in Nursing: 3 semester hours***

Prerequisites: NURSE 6309. This course provides students the opportunity to learn evaluation concepts, including testing and measurement in nursing education at the didactic, clinical and programmatic levels. Content includes strategies to assess and evaluate learning in the cognitive, psychomotor and affective domains. Quality improvements, as well as legal and ethical considerations are explored. Key concepts include criterion and norm referenced theory and technique; reliability, validity, and the associated descriptive statistics; preparation of instrumental objectives for use in developing classroom tests and clinical nursing performance evaluations.

***NURSE 6409 Role Of The Nurse Leader: 3 semester hours***

Prerequisites: Admission to the Master's Program in the College of Nursing or consent of the instructor. Analysis of the roles and responsibilities of the nurse executive in a complex healthcare system. This course explores the roles and challenges of the clinical nurse leader. Emphasis will be placed on the responsibilities of the clinical nurse and clinical nurse leader in a complex healthcare system.

**NURSE 6425 Managed Care Services: 3 semester hours**

Prerequisites: Admission to the MSN or consent of instructor Provides an analysis of the health care environment in managed care and its impact on the nurse's role.

**NURSE 6426 Health Resources Management: 3 semester hours**

Prerequisite: NURSE 6409. This course focuses on the roles and responsibilities of the nurse leader for fiscal and human resource management in both public and private sectors. Includes analysis of the environment, healthcare organization within the system and impact of resource management on nursing and health care.

**NURSE 6428 Theory And Practice In Nursing Leadership: 3 semester hours**

Prerequisite: NURSE 6409. This course focuses on theories and practices of advanced nursing leadership and management practice within complex healthcare systems. This course will also compare to global healthcare systems. Particular focus will be on the application/effectiveness assessments of the practices within healthcare organizations. Patient safety and quality management theory practices in healthcare will be discussed in depth and compared to other industries' safety and quality management programs theory/practices.

**NURSE 6509 Role Of The Clinical Nurse Specialist/Nurse Practitioner: 2 semester hours**

Prerequisites: Admission to the Master's Program in the College of Nursing or consent of instructor. This course will focus on issues affecting the emerging roles of the nurse practitioner and clinical nurse specialist. It is designed to facilitate the role development of nurses who desire to function as primary care providers and/or as specialists within a specific clinical area of advanced nursing practice. Emphasis include sub-roles of advanced practice (leader, consultant, expert, researcher, educator), legal and professional issues, change theories, and standards of practice.

**NURSE 6518 Pathophysiology For Advanced Nursing Practice: 3 semester hours**

This course focuses on implications for advanced nursing practice through examination of selected pathophysiological phenomena which occur frequently in the diverse populations to whom advanced nurses provide care.

**NURSE 6519 Advanced Pediatric Pathophysiology: 3 semester hours**

This course focuses on embryology of the major organ systems, as well as specific physiologic and pathophysiological processes relevant to the child from birth through age 18. Implications for advanced nursing practice which result from alterations of normal physiologic functioning in cellular, tissue, and organ systems are examined. Emphasis is placed on the relationship between pathophysiology, decision making and standards of advanced nursing practice.

**NURSE 6520 Pharmacology For Advanced Nursing Practice: 3 semester hours**

Prerequisites: NURSE 6518 or equivalent or consent of instructor. This is a course in clinical pharmacotherapeutics that builds on prior knowledge of drug classifications, actions, interactions, and adverse drug reactions. The major focus of the course is the pharmacotherapeutic use of medications for primary health-care management by advanced practice nurses. Emphasis is placed on clinical critical thinking process used to prescribe drugs in the management of specific illnesses. The Missouri laws for advanced practice nurse prescriptive authority will be addressed. Emphases include pharmacodynamics, pharmacokinetics, pharmacotherapeutics, health-related information, medication compliance, and issues that pertain to the prescribing of medications in advanced nursing practice.

**NURSE 6524 Health Assessment For Advanced Nursing Practice: 3 semester hours**

Prerequisite: NURSE 6518 (may be taken concurrently). This course is designed to provide a systematic approach to the advanced physical assessment as well as psychological, sociocultural, developmental and spiritual assessment of individuals across the lifespan. This course builds upon basic health assessment knowledge and skills, laboratory work interpretation, validation, documentation, and analysis of assessment findings. Two hours of theory and 1 hour of clinical lab per week are required.

**NURSE 6526 Advanced Health Assessment For Pediatric Nursing Practice: 3 semester hours**

Co-requisite: NURSE 6519 or permission of the instructor. Comprehensive assessment of children through adolescence, including those with significant health and/or developmental deviations, using advanced diagnostic reasoning process. Emphasis on health history, cultural diversity, differentiation, interpretation, and documentation of findings.

**NURSE 6529 Advanced Pharmacology For Pediatric Nursing Practice: 3 semester hours**

Prerequisites: Admission to Master of Science in Nursing or permission of the instructor. This course is a clinical pharmacotherapeutics that builds on prior knowledge of drug classifications, actions, interactions, and adverse drug reactions. The major focus of the course is the pharmacotherapeutic use of medications for primary health care management of children from birth to young adulthood by advanced practice nurses. Emphasis is placed on the clinical critical thinking process used to prescribe drugs in the management of specific illness. The Missouri Laws for advanced practice nurse prescriptive authority will be addressed. Core concepts include pharmacodynamics, pharmacokinetics, health related information, medication compliance and issues that pertain to the prescribing of medication in advanced nursing practice.

**NURSE 6530 Clinical diagnostics for Advanced Nursing Practice: 2 semester hours**

Prerequisites: NURSE 6518 or NURSE 6519. This course provides an introduction to the interpretation and appropriate use of diagnostic measures for advanced practice nurses in primary care settings. Special attention is paid to laboratory, radiographic and diagnostic testing. In addition, clinical opportunities will be provided to gain clinical interventional skills for advanced practice nursing.

**NURSE 6737 Psychiatric-Mental Health I: Diagnosis & Management In Advanced Nursing Practice: 4-5 semester hours**

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6509, NURSE 6518, NURSE 6520, NURSE 6524, and NURSE 6530. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of individuals and families across the life span. The focus is on the maintenance and promotion of mental health. Experiences are designed to enhance assessment and technical skills needed in diagnosing and managing common mental health problems and psychiatric disorders. Management includes pharmacological and non-pharmacological interventions including psychotherapeutic treatment modalities. This course is 4 hours if taken without clinical hours and 5 hours if clinical hours are included.

***NURSE 6738 Psychiatric-Mental Health II: Diagnosis & Management In Advanced Nursing Practice: 4-5 semester hours***

Prerequisite NURSE 6737. This clinical course is designed to provide students with the opportunity to gain the concepts and skills essential to advanced practice nursing care of individuals experiencing acute and chronic psychiatric disorders. The student is expected to learn to diagnose and treat psychiatric disorders (including prescriptive practice and psychotherapy), as well as perform screening, historical, psychosocial and physical exams to diagnose/identify major psychiatric problems. An evidence based approach to advance practice nursing interventions is used. Emphases include individual and family adaptation to acute and chronic conditions, health promotion, clinical decision-making, and ethical decision-making. This course is 4 hours if taken without clinical hours and 5 hours if clinical hours are included.

***NURSE 6739 Diagnosis and Management of the Adult-Geriatric Patient I: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6518. Clinical course is designed to provide a theoretical and practical base for advanced practice nursing students to diagnose and manage health problems through the life span from young adulthood through old age. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to clinically apply the concepts and theories discussed in class in the advanced nursing care of adults who are experiencing problems related to the upper and lower respiratory system, cardiovascular system, gastrointestinal system, skin, and infectious diseases. Clinical experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems.

***NURSE 6740 Diagnosis & Mgmt of the Adult-Geriatric Patient II: 5 semester hours***

Prerequisite: NURSE 6739. Clinical course is designed to provide a theoretical and practical base for advanced practice nursing students to diagnose and manage health problems through the life span from young adulthood through old age. Emphasis is placed on clinical assessment and decision-making in the provision of direct patient care within a defined scope of practice. The student is expected to clinically apply the concepts and theories discussed in class in the advanced nursing care of adults experiencing problems related to the musculoskeletal, neurological, endocrine/metabolic, genitourinary, reproductive systems, the eye, and mental health. Clinical experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems.

***NURSE 6741 Family Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6518, NURSE 6520, NURSE 6524. NURSE 6509 and NURSE 6530 may be taken concurrently. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of individuals and families across the life span. The focus is children, women and adults. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.

***NURSE 6742 Family Health II: Diagnosis & Management In Adv Nursing Practice: 5 semester hours***

Prerequisites: NURSE 6741 This clinical course is designed to provide students with the opportunity to gain the concepts and skills essential to advanced practice nursing care of families experiencing acute and chronic health problems, with particular focus on adult clients. Emphasis is given to those health problems most commonly encountered by the Family Nurse Practitioner. A research-based and theory-based approach to nursing interventions is used. Emphases include family adaptation to acute and chronic conditions, health promotion, clinical decision-making, and ethical decision-making. 4 didactic hours and 1 clinical hour per week are required.

***NURSE 6743 Child Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130; NURSE 6518 or NURSE 6519; NURSE 6520 or NURSE 6529; NURSE 6526. NURSE 6509 and NURSE 6530 may be taken concurrently or instructor consent. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of pediatric individuals and their families. The focus is the life span of the infant through adolescence. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.

***NURSE 6744 Child Health II: Diagnosis & Mgmt In Advanced Nursing Practice: 5 semester hours***

Prerequisites: NURSE 6743. This course is designed to provide students with the opportunity to apply skills from advanced physical assessment, pathophysiology pharmacology, and theory to advanced nursing care of the child and the family. Emphasis is placed on using models and theories that guide advanced practice and planning evidence-based care. The focus is on assessing, diagnosing and planning care for clients with common pediatric problems. The implications of the developmental stage of the child and family, level of developmental skill and developmental problems for the maintenance of health, and the management of illness by the advanced practice nurse are discussed. Documentation includes pertinent history, physical examination, laboratory findings and differential diagnosis relevant to the individual client. Focus is on developing a plan of care that encompasses the various treatment modalities used in managing common pediatric health problems including specific pharmaceutical and symptomatic treatment. Clinical practice opportunities are arranged in collaboration with the instructor and planned in a variety of pediatric settings. Four hours of didactic and 1 hour of clinical per week are required.

***NURSE 6746 Women's Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6518. May be taken concurrently with NURSE 6309 and NURSE 6350. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of women. The focus is on reproductive health and the lifespan life of women throughout the childbearing continuum, including grief and loss. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.



**NURSE 6747 Women's Health II: Diagnosis & Mgmt In Advanced Nursing Practice: 5 semester hours**

Prerequisites: NURSE 6746 Clinical course designed to provide students with the opportunity to apply knowledge and skills to advanced practice nursing care of women and families throughout the lifespan. Emphasis is placed on using models and theories that guide advanced practice and research-based care. Focus is on educating the advanced practice nurse to collaborate with women and their families to promote health and prevent disease. Within this context, focus is on assessing, diagnosing and planning care for well women, as well as women experiencing common women's health problems within a health promotion framework. The format includes pertinent history, physical examination, laboratory findings, and differential diagnoses relevant to the individual client. Core concepts include adaptation of women through developmental stages, health risk assessment, health promotion, disease prevention, health education, primary care of well women, ethical decision-making, and grief and loss. Focus is on the development of a plan of care that encompasses the various treatment modalities used in managing common women's health problems including specific pharmacological and non-pharmacological therapies.

**NURSE 6870 Special Topics In Advanced Practice Nursing: 1-3 semester hours**

Prerequisites: Consent of instructor Explore special topics for the advanced practice nurse in the areas of research, theory, education and administration. No more than three hours shall be applied toward the degree. This course is for graduate MSN or PhD levels.

**NURSE 6875 Special Study In Graduate Nursing: 1-3 semester hours**

Prerequisites: Admission to MSN prog or consent of instructor In-depth study of selected topics in nursing under the guidance of a specific instructor. No more than three hours may be applied to the master's program of study.

**NURSE 6950 Advanced Nursing Practice: 4 semester hours**

Prerequisites: NURSE 6739, NURSE 6743 NURSE 6746. Advanced nursing practice examines different nursing and interdisciplinary models of case management of acute and chronic problems across the lifespan. The intensive clinical experience focuses on the student's specialty care area: adults, pediatric or women's health.

**NURSE 6951 Advanced Intensive Clinical for the Nurse Educator: 2 semester hours**

Prerequisites: NURSE 6520, NURSE 6524, NURSE 6309. This course provides a concentrated opportunity to function in an advanced nursing role as a nurse educator incorporating an intensive clinical experience focusing on the student's chosen population.

**NURSE 6952 Synthesis Practicum: 3 semester hours**

Prerequisites: All required courses in the Nurse Educator or Nursing Leadership of Health Systems option or consent of instructor. This clinical course is a concentrated opportunity to function in an advanced nursing role as a nurse administrator, integrating clinical and functional role activities within a chosen setting. Emphasis includes educator or administrator nursing practice, functional role responsibilities, and activities with emphasis on their relationship to client outcomes.

**NURSE 6954 Advanced Practice Nursing: Internship 1: 4 semester hours**

Prerequisites: All required graduate Nursing courses. This clinical course provides opportunity for the initiation of the nurse practitioner role with selected populations. Students participate in precepted experiences with certified nurse specialists, practitioners and/or primary care physicians for a minimum of 250 hours. Students will participate in clinical seminars. May be taken concurrently with other required courses.

**NURSE 6955 Advanced Practice Nursing: Internship 2: 4 semester hours**

Prerequisites: NURSE 6954. Continuation of precepted clinical experiences with a selected populations initiated in NURSE 6954. Students satisfy a minimum of 250 precepted hours with clinical nurse specialists, certified nurse practitioners, and/or primary care physicians and participate in frequent clinical seminars.

**NURSE 7200 Nursing Science: 3 semester hours**

Prerequisites: Admission to a doctoral study in nursing. This course examines the state of scientific knowledge in nursing research and practice. Gaps in the nursing research and practice are identified. Interrelationships between nursing science and scientific developments in other disciplines from the perspectives of health outcomes, population health indices, and policy implications of scientific progress are analyzed. Advanced in biophysiological, psychosocial, sociocultural, health systems, and health economics research and the implications for translation to improve nursing science and practice are analyzed.

**NURSE 7211 Biostatistics I: 3 semester hours**

Prerequisites: Admission to PhD program. This course provides a comprehensive understanding of the use of biostatistics in conducting research. Data description, logic of sampling and test statistics, hypothesis testing, type 1 and type 2 errors are included. Test statistics include one-way ANOVA, (analysis of variance); post-hoc tests and trend analysis; factorial ANOVA; repeated measures designs and mixed randomized repeated designs; multiple comparison techniques; and simple and multiple regression.

**NURSE 7212 Biostatistics II: 3 semester hours**

Prerequisites: Admission to PhD program This course builds on statistical procedures and advances the student's understanding of advanced statistical methods including design and measurement.

**NURSE 7220 Leadership in Practice: 3 semester hours**

This course provides students with the opportunity to develop and refine critical leadership skills. Emphasis is on using models and theories that facilitate inter-professional collaboration to achieve optimal health outcomes. The focus is effective communication and leadership methods necessary to establish successful inter-professional teams. Students will enhance skills in verbal, written and electronic communication; team leadership; and creating and sustaining health related initiatives. Through advanced understanding of the inter-professional dimension of health care, students will facilitate collaboration and remove barriers to providing safe, timely, effective, efficient, equitable and patient centered care in a complex environment.

**NURSE 7230 Epidemiology: 3 semester hours**

Prerequisite: NURSE 6000 or equivalent within 5 years. This course introduces the fundamental principles and methods of epidemiology. Topics to be covered include the historical perspective of epidemiology, measures of disease occurrence and of association, clinical epidemiology, disease screening, causal inference, and analytic study design. Students will design epidemiologic studies, and utilize common statistical tests. Emphasis will be placed on case control studies, cohort studies, clinical epidemiology, and infectious disease epidemiology.



**NURSE 7240 Health Informatics: 3 semester hours**

Prerequisites: Consent of the Instructor. This course explores information systems and computer technologies that can improve the health of individuals, families, communities and populations by optimizing information management and communication. Focus areas include the electronic medical record, technologies to improve patient safety, standards for privacy and security, tele-health systems to improve healthcare access to underserved populations, use of web-enhanced technologies for research translation, and strategies to provide data for decision making and evident based databases. Emphasis is placed on developing competence in technology use for the purpose of program evaluation, establishing healthcare quality, and improving healthcare delivery to diverse populations in complex healthcare settings.

**NURSE 7250 Frameworks for Health Care Delivery and Policy: 3 semester hours**

Prerequisites: None. This course is designed to provide students with a framework to understand the system through which health care is delivered and financed. The cultural and psychosocial contributors to health care are discussed. The focus is to provide students with knowledge about complex health care systems, government and private reimbursement structures, quality and patient safety initiatives, legal mandates and policy issues affecting health care delivery.

**NURSE 7260 Program and Practice Evaluation: 3 semester hours**

Prerequisite: None. Includes principles and procedures for assessing the quality and effectiveness of programs, projects and materials related to planned interventions and systems changes in health settings. Using a logic model, practice and programs will be evaluated and presented to agencies. Values, ethical issues and political issues, particularly those relevant to race/ethnicity and gender will be emphasized.

**NURSE 7270 Policy Application for Improved Health Outcomes: 3 semester hours**

Prerequisites: NURSE 6106 or equivalent and NURSE 7230. Students learn how to effectively translate and disseminate knowledge from nursing and other health sciences to policy makers and stakeholders in order to form collaborations to affect change at various levels of the policy process. Topics to be covered include policy analysis, policy development, collaboration and negotiation specific to the policy process, building social and political capital and garnering resources to assure effective policy implementation. Students will utilize population health data, policy analysis, and policy development skills to define, shape and implement culturally competent health policy.

**NURSE 7291 DNP Clinical Scholarship I: 3 semester hours**

Prerequisites: All DNP coursework or Consent of Instructor. This experience provides additional opportunities for practice expertise development to create change in a targeted population and complex healthcare environments. Students will develop skills to assess and diagnose healthcare systems and identify evidenced-based strategies to improve health outcomes. Included in this experience is 150 hours of immersion in their population focused scholarly project.

**NURSE 7292 DNP Clinical Scholarship 2: 3 semester hours**

Prerequisites: NURSE 7291. This experience provides additional opportunities to develop clinical preventative strategies to create change in a targeted population and complex healthcare environments. Students will implement evidenced-based projects to improve health outcomes. Included in this experience is 200 hours of immersion in their population focused scholarly project.

**NURSE 7293 DNP Clinical Scholarship 3: 3 semester hours**

Prerequisites: NURSE 7292. This experience provides additional opportunities to evaluate clinical preventative strategies with a targeted population in a complex healthcare environment. Students will evaluate evidenced-based clinical projects and health outcomes. Included in this experience is 200 hours immersion in their population focused scholarly project.

**NURSE 7299 DNP Seminar: 1-3 semester hours**

Prerequisites: All DNP required course work or Consent of Instructor. This seminar provides students with the opportunity to synthesize and analyze knowledge within the context of the emerging DNP role. Analysis of practice issues may include reflective practice, collaboration, health systems technology, ethics and policy.

**NURSE 7300 Prevention of Injury and Disability: 3 semester hours**

Prerequisites: Graduate status or consent of instructor. This course will examine trends in injury and disability nationally and internationally, relevant theories and conceptual models, the definition and measurement of key concepts, and analysis of interventions proposed for preventing injury and mitigating disability. The role of information and computer technologies in the management of disability will also be considered. Specific content will include age-related injury and disability, disability associated with cardiovascular and other chronic diseases, and the psychosocial contexts of disability, including traumatic stress and its outcomes.

**NURSE 7401 Research Institute I: 2 semester hours**

Prerequisites: Admission to Doctorial Study in Nursing. This course provides an introduction to the process of becoming a research scientist or translational investigator. Content will include the responsible conduct of research, its core elements, relevant policies and procedures, and relevant research. This course also includes the culture of nursing, literature reviews, scholarly writing, technology in the research process, developing a program of scholarship and effective time management.

**NURSE 7403 Developer of the Nurse Scientist: 3 semester hours**

Prerequisite: Admission to doctoral study in nursing. This course addresses the role of the PhD-prepared nurse as scientist, leader, academician, and policy maker. Students will analyze strategies for lifelong learning and development as nurse scientists and will explore avenues for building their programs of scholarship, funding opportunities, and contributing to nursing science in policy and clinical practice. Students will examine ways to collaborate effectively in order to improve health care and health outcomes.

**NURSE 7480 Guided Nursing Research Seminar: 1-6 semester hours**

Prerequisite: Consent of instructor Provides opportunity to work in collaboration with faculty and peers on a focused research topic relevant to nursing.

**NURSE 7481 Development Of Nursing Science And Theory: 3 semester hours**

Prerequisite: Admission to PhD Program. This course focuses on the discipline of nursing, including the evolution of the state of scientific inquiry and knowledge development in nursing. The course includes the aims of nursing science, the nature of nursing knowledge and scientific theories, and a discussion of relationships among theory, research, method, and practice. Students engage in constructive dialogue as they begin to conceptualize nursing phenomena in their area of interest.

***NURSE 7488 Qualitative Methods In Nursing Research: 3 semester hours***

Prerequisites: Admission to PhD program. Examines the relationship between theoretical and philosophical perspectives and selection of appropriate methodologies in research design. Critically explores issues related to innovations in traditional qualitative designs and emerging technologies, rigor and validity, and role of interpretive research in nursing science.

***NURSE 7490 Advanced Nursing Research Designs and Methods: 3 semester hours***

Prerequisite: Admission to the PhD program. This course focuses on development of the research plan including issues in sampling, design, and implementation nursing research. Students will evaluate research methods to answer research questions in their area of interest. Content includes design and analysis issues affecting validity, examination of measurement techniques for assessing validity, reliability, structure of data collection instruments, and criteria for instrument selection. A research proposal will be prepared.

***NURSE 7491 Advanced Nursing Theory Development And Validation: 3 semester hours***

Prerequisite: Admission to PhD program. This course focuses on a systematic study of contemporary nursing science and related theories in knowledge development, and the application of theory construction and validation strategies to specific nursing phenomena of interest. Students create and critically examine theoretical frameworks and models, with emphasis placed on constructing and testing theoretical statements.

***NURSE 7498 Doctoral Seminar: 1-12 semester hours***

Prerequisite: Consent of instructor Presentation and discussion of pertinent methodological and clinical issues related to doctoral research.

***NURSE 7499 Dissertation Research: 1-12 semester hours***

Prerequisite: All required course work; successful completion of comprehensive examination. Investigation of an advanced nature culminating in successful defense of dissertation. Continuous registration is required.

# College of Optometry

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This section contains an abbreviated version of the College of Optometry Bulletin. Some information is omitted.

For the most complete and accurate information regarding the Optometry program at UMSL, please go to the College of Optometry Home Page.

## General Information

The UMSL College of Optometry enrolled its first class in 1980, graduating 32 students in May 1984. The College is located on the South Campus complex of the University of Missouri-St Louis at 7800 Natural Bridge Road. A five-story building houses the College's classrooms, laboratories, research facilities, administrative offices, and the Center for Eye Care campus facility (the University Eye Center).

The College of Optometry is a member of the Association of Schools and Colleges of Optometry (ASCO) and is accredited by the Accreditation Council on Optometry Education (ACOE).

## The Doctor of Optometry (O.D.) Degree

A student who satisfactorily completes all four years of the professional curriculum will be eligible to receive the Doctor of Optometry degree.

The training and clinical experience optometry students receive at UMSL qualifies graduates to practice optometry in any state in the nation.

## Center for Eye Care

The Center for Eye Care provides a patient care environment for upper level optometry students and post-doctoral residents. The Center for Eye Care includes three locations: the University Eye Center on the UMSL South Campus, the Optometric Center in the Central West End of the city of St. Louis, and the East St. Louis Eye Center on the campus of East St. Louis Community College Center. These and other affiliated health centers in the St. Louis area provide an instructional setting where student interns are exposed to a wide variety of patients under the direct supervision of College of Optometry faculty. Equally important is that these Centers provide exemplary, comprehensive and state-of-the-art eye and vision care to their patients.

The Centers provide a full range of optometric services including adult primary eye care, contact lens, pediatrics, binocular vision, low vision, and eye health management. Specialized testing of color vision and electrophysiology are also available.

Situated in Missouri's largest metropolitan area, the College of Optometry enjoys the region's strong community and professional support. The urban setting offers many opportunities for outreach programs, expanding the scope of optometric education and making possible a highly diverse programs of clinical training. Another asset of the College is its proximity to the national headquarters of the American Optometric Association, located just a few miles from campus.

The curriculum leading to the doctor of optometry degree is a four year, fulltime program of study. The first year of the professional curriculum emphasizes basic and biomedical sciences and introduces students to optics of the visual system. The second year pertains to vision science and instruction in clinical examination techniques. The third year emphasizes patient care and introduces the student to specialty areas within optometry, such as contact lenses, pediatrics and geriatric vision care, binocular vision and vision therapy, and low vision rehabilitation. The

second and third years also include course work and clinical instruction in ocular disease and pharmacology. The fourth year includes six rotations through the externship program, giving the student added experience in the management of eye diseases, as well as valuable experience in other optometric clinical specialties.

## Fourth-Year Externship Program

In addition to the patient care experiences available through the University Eye Center, Optometric Center, the East St. Louis Center, the College of Optometry also has a diverse Externship Program. Students must receive approval from the faculty and the Director of Externships for assignments to each Externship site. This program allows fourth-year students to spend a portion of their final year of training in a variety of patient care environments (i.e., military bases, Veterans Administration Hospitals, Indian Health Services Hospitals, various specialty practices and private practices).

These eight (8) week externships are selected and scheduled with consideration given to the individual student's interest, needs and future practice intentions. Externship Rotations are located throughout the United States and select international sites. In this program, students leave the academic environment and begin working with selected eye care professionals while continuing to be monitored by the faculty through bi-weekly reports of patient encounters, therapies, and activities. The externship rotations are designed to give students exposure in the following areas:

- Pediatric/Binocular Vision Patient Care
- Contact Lens Patient Care
- Low Vision Patient Care
- General (Primary Optometric) Patient Care
- Refractive Management Patient Care
- Eye Health Management Patient Care
- Geriatric Patient Care
- Sports Vision Patient Care
- Optometric Rehabilitation Patient Care

## Student Organizations & Activities

All optometry students enrolled in the University of Missouri--St. Louis College of Optometry are eligible for membership in the various student optometric associations, including The Missouri Optometric Student Association (MOSA) and The American Optometric Student Association (AOSA). Through these organizations, and many others, students become involved in local and national optometric activities. The organizations provide an environment for the cultivation of professional leadership skills, and members have organized and participated in a variety of community service activities, including community health screenings and vision care to residents of nursing homes, convalescent hospitals, and mental institutions. Furthermore, optometry students have formed local chapters of Student Volunteer Optometric Services to Humanity (SVOSH), an international organization of optometrists providing free vision care to people in impoverished nations, and the National Optometric Student Association (NOSA), which strives to recruit minority students into optometry and encourages retention of minority students.

In addition to the many activities through the College of Optometry, optometry students are able to take advantage of all the activities provided by the university to the entire university community. These include intramural sports, movies and cultural activities, a modern, fully equipped

fitness center and gymnasium, and access to many social and cultural opportunities in St. Louis at reduced cost.

## Pre-Optometry Programs

The University of Missouri-St. Louis offers a four-year program of study leading to the doctor of optometry degree; this professional degree is administered by the College of Optometry. It is one of only 21 accredited programs in the United States and the only one in the state of Missouri. This program, as a result, makes UMSL an ideal institution for pre-optometry education. Various programs are available for pre-optometry as noted below.

Students may pursue a traditional 4 + 4 program, which is a bachelor's degree followed by the four-year graduate optometry program. In this case, students may pursue any bachelor's degree, as long as the pre-optometry requirements are met in biology, chemistry, mathematics, physics, psychology and English.

Alternatively, the Department of Biology, the Department of Physics and Astronomy, and Department of Chemistry sponsor 3+4 Programs for the UMSL College of Optometry, for which a student may be admitted to the College of Optometry after completing three years (90 semester hours) of study in their respective majors and successful completion of the Optometry Admission Test (OAT). (See your specific department for undergraduate degree requirements.)

The Pierre Laclède Honors College and the College of Optometry also offer the Scholars Program, which allows a student to complete both the undergraduate and doctor of optometry degrees in seven years. To qualify for this program, a student must be a senior in high school; score a minimum composite of 27 on the ACT; and be accepted to the UMSL Pierre Laclède Honors College program. For more information about the Scholars Program, contact the Pierre Laclède Honors College, (314) 516-7769.

For the programs described above (Scholars or 3+4), the undergraduate degree is granted when the student satisfactorily completes the first year of the professional program and has met all of the conditions for the specific undergraduate degree for which the student has applied.

1. All general education requirements and all requirements for the biology or physics major, or other major, except electives, must be completed.
2. Any deficiency in required courses must be remedied with courses taken at UMSL within three years after entering the College of Optometry.
3. Up to 6 hours from the College of Optometry may be substituted for an undergraduate degree in Biology with approval of the Department of Biology.
4. Up to six hours is used to satisfy degree requirements in biology, and 14 hours in physics to complete the B.S. in Physics degree.

For more information, contact the Department of Biology, (314) 516-6200 or the Department of Physics and Astronomy at (314) 516-5931. The Department of Chemistry offers a similar program, and may require summer research in order to complete the degree requirements for a B.A. or B.S. in Chemistry. For more information, please contact the Department of Chemistry and Biochemistry at (314) 516-5311.

In some cases, students are admitted to the optometry program without a degree.

Note: MATH 1800, Analytical Geometry and Calculus I must be taken in the first semester for most 3+4 or Scholars Programs.

## Admission Requirements

- Semester:
  - English - 2
  - Biology (including laboratory)<sup>1</sup> - 3
  - Physics (including laboratory) - 2
  - Chemistry<sup>2</sup>
  - General (including laboratory) - 2
  - Organic (including laboratory) - 1
  - Mathematics<sup>3</sup>
  - Calculus - 1
  - Statistics - 1
  - Psychology - 2
  - Liberal Arts - 2
- Quarter :
  - English - 3
  - Biology (including laboratory)<sup>1</sup> - 4
  - Physics (including laboratory) - 3
  - Chemistry<sup>2</sup>
  - General (including laboratory) - 3
  - Organic (including laboratory) - 2
  - Mathematics<sup>3</sup>
  - Calculus - 1
  - Statistics - 1
  - Psychology - 2
  - Liberal Arts - 2<sup>2</sup>

- 1 One semester (or one quarter) of Microbiology with laboratory is a requirement. One semester of Anatomy or Physiology is recommended.
- 2 One semester of Biochemistry, Cell Biology or Human/Comparative Physiology is recommended.
- 3 Trigonometry as a prerequisite course for Calculus must be completed, either in high school (official high school transcripts required as proof), or college.

The College of Optometry uses a rolling admissions process. All courses used to satisfy the admission requirements must have been taken at an institution fully accredited by one of the Department of Education regional accreditation bodies. Specific prerequisite courses must be taken for a letter grade; they cannot be taken as an audit or on a pass/fail or satisfactory/unsatisfactory basis. Applicants must have completed 90 semester or 135 quarter hours (the equivalent of three years of college education) before the start of classes. In order to process financial aid awards it is strongly recommended that students complete all prerequisite courses the spring prior to admission. The applicant cannot apply more than 60 semester hours or 90 quarter hours which were earned at a two year institution toward the credit hour requirement. Applicants holding a bachelor's degree will be given preference over applicants with similar academic credentials who do not have a degree. Applicants to the college come from a variety of undergraduate backgrounds, such as biological sciences, chemistry, psychology, education, and business.



### Advanced Placement Credit (AP) Policy (effective July 1, 2014)

A total of 10 hours of AP credit is acceptable if the applicant scored 4 or greater in the subject on the AP Exam. An official transcript is required.

For science courses, in addition to the 10 hour limit and a score of 4 or higher achieved on the exam, the applicant must score a 330 or higher in that particular subject on the OAT exam.

## Admission Test

Students should work with their undergraduate advisors as well as their academic advisor in optometry, to insure that all pre-requisite courses are taken prior to taking the Optometry Admission Test (OAT), which is required prior to being offered an interview for consideration for admission to the College of Optometry.

All applicants are required to take the Optometry Admission Test (OAT). The OAT is now offered through computer sites. As the computerized version may be scheduled at any time, please plan to take the OAT by June of the year you plan to apply in order to be considered for early admission. Official test scores are acceptable for up to three years from the testing date.

Applicants are encouraged to take the examination by June of the year of application to the College of Optometry. If applicants wish to enhance their scores, the examination may be repeated. For OAT information, contact:

### Optometry Admission Testing Program

211 East Chicago Ave.  
Suite 1846  
Chicago, IL 60611  
(312) 4402693  
<http://www.opted.org>

To apply to take the OAT, please click on the OAT link on [www.opted.org](http://www.opted.org) (<http://www.opted.org>) (on right).

## Application Procedures

The Admissions Committee begins to process applications on July 1 for the class entering the following year. An applicant's file will be considered complete and ready for consideration by the Admission Committee when the following material has been received:

\*Asterisked items are processed by Centralized Application Service:

- \*Application through Centralized Application Service.
- Supplemental Application through UMSL with a \$50.00 non-refundable application fee.

Please send directly to OptomCAS:

- \*Official high school and college transcripts, followed by updated transcripts as they become available. (Exception: graduates of international programs see deadline requirement for all transcripts).
- \*A composite evaluation prepared by the preprofessional advisory committee at the educational institution the applicant is attending. Those applicants not currently attending college or who are at an institution that does not offer a committee evaluation will be required to submit three letters of recommendation (which includes one letter of recommendation from an optometrist who is not related to you).

Students must release official Optometry Admission Test (OAT) results to UMSL.

Official transcripts not already submitted to OptomCAS must be mailed from every college attended, regardless of whether or not credit was earned, once an applicant has accepted our offer of admission.

Letters of recommendation must be emailed or mailed directly to the Centralized Application Service center by the originator. It is the applicant's responsibility to ensure all application materials are received by the Centralized Application Service center by February 15 (International students: transcripts by December 15 year prior) to be considered for admission to the class entering in August of the same year. Facsimile (faxed) application material will be accepted or acknowledged. Application material received after February 15 will not be evaluated for the class entering in August of the same year. To insure that all materials will be processed in time, we strongly encourage students to complete his/her OptomCAS application and insure all transcripts and letters of recommendation are received at OptomCAS prior to January 15. To be considered for merit scholarships, there is an early enrollment deadline. All materials must be received by January 5 in order to be considered for the early application deadline. Applications received after that time will still be considered for admission but not additional awards, e.g. merit scholarships, state seat contracts.

## International Students

International students whose native language is not English and who have spent less than two of the last three years in an English-speaking country are required to submit scores from an internationally accepted standardized examination before a decision is made on admission.

To complete their credential file, applicants are required to furnish original and official transcripts before December 15th the year prior to admission from each school and college attended both in this country and abroad. The Educational Credentials Evaluators, Inc. or the World Education Services must evaluate all foreign school and college transcripts and their evaluation submitted as part of the application requirement. For information contact:

### Educational Credentials Evaluators, Inc.

Post Office Box 514070  
Milwaukee, WI 53203-3470  
(414) 289-3400  
Fax: (414) 289-3411  
Email: [eval@ece.org](mailto:eval@ece.org)  
Web site: <https://www.ece.org>

### World Education Services

P.O. Box 5087  
New York, N.Y. 10274-5087  
(212) 966-6311  
Fax: (212) 939-6100  
Email: [info@wes.org](mailto:info@wes.org)

The University of Missouri-St. Louis maintains an Office of International Student Services to assist applicants who have been offered admission. All new international students are required to attend a formal orientation program before matriculation. For more information, contact:

## University of Missouri-St. Louis

Office of International Student Services  
One University Blvd.

St. Louis, MO 63121-4499  
 (314) 516-5229  
 Email: iss@umsl.edu

## Selection Procedures

Applications are reviewed beginning in August with interviews scheduled and initiated starting in September. The college uses a 'rolling admissions' process that allows qualified applicants to be admitted on an ongoing basis until the class is filled. Therefore, applicants are encouraged to apply as early as possible to ensure full consideration for admission.

The Admissions Committee has the responsibility to review and evaluate all applicants and select the best qualified candidates. The committee considers: an applicant's overall grade point average, the grade point achieved in the sciences, any grade trends over the years in college, and the scores on the OAT. Concurrently, candidates are evaluated on less quantitative measures such as extracurricular activities and interests, related or unrelated work experience, written narrative, and letters of recommendation.

Those applicants whom the committee feels to be most competitive will be invited for an on-campus interview. The on-campus interview facilitates an assessment of the applicant's communication skills, interests, motivation, and personal characteristics. In addition, the on-campus interview allows the applicant to tour the facilities, meet with currently enrolled students, present questions regarding financial aid and housing, and learn more about the University of Missouri-St. Louis and the College of Optometry. From this group of interviewed applicants, the entering class of 44 students will be selected.

Once an offer of admission is made to an applicant, the applicant will be contacted by OptomCAS to complete a background check. We encourage applicants to review the criteria for background check on the OptomCAS website. [www.optomcas.org](http://www.optomcas.org) (<http://www.optomcas.org>)

The policies of the University of Missouri-St. Louis and the College of Optometry comply with the provisions under those laws that forbid discrimination on the basis of race, color, religion, sex, sexual orientation, national origin, age, disability or status as a Vietnam era veteran.

## Admission Process

Notices of acceptance may be received as late as July of the year in which the students enter the program. If acceptance to the class is conditional, the terms of the condition must be completed prior to matriculation. Applicants who have indicated that degree requirements will be completed prior to matriculation, and who have been selected for admission, may receive a conditional offer of acceptance contingent upon completion of the degree and any outstanding prerequisites.

Students offered admission have 15 days from the date on the offer of admission letter to make a required \$500 acceptance deposit. The \$500 deposit will be credited toward tuition when the student matriculates. If the student withdraws from consideration prior to May 15th, \$250 will be refunded. After May 15th, no refunds will be given. There is a \$250 administrative fee.

A certain number of applicants are placed on an alternate list. If an applicant who has been offered admission declines the offer, their position will be allocated to the next individual on the alternate list.

Notification of denial is sent by mail. Applicants who do not receive an offer of admission may reapply the following year through the Centralized Application Service.

## Financial Aid

The University of Missouri-St. Louis maintains an Office of Student Financial Aid to assist students with the cost of their education.

Financial assistance is available in the form of loans, scholarships, and work-study. Funds for these programs are available from federal, private, state, and institutional resources. To apply for financial aid, students must complete a Free Application for Federal Student Aid (FAFSA). Preference will be given to those students who have completed the FAFSA by April 1. Preference means that the Student Financial Aid Office will begin awarding FWS (Federal College Work-Study), and maximum government allowable funding under subsidized loans. A completed financial aid application means that the Financial Aid Office has received an official Student Aid Report from the Federal Processing Center. Information about Federal loan programs and FAFSA are available at [www.fafsa.ed.gov](http://www.fafsa.ed.gov)

The Student Financial Aid Office maintains a Web site at [www.umsl.edu/services/finaid](http://www.umsl.edu/services/finaid), where students will find useful information along with the ability to contact the office electronically via e-mail. Also included is a scholarship directory that is updated annually.

To be considered for all university scholarships offered through the Financial Aid Office, a student must be accepted for admission.

Many state optometric associations and their auxiliaries offer scholarships and grants. Application is generally made directly to the state association or auxiliary and selection is generally made on the basis of state residence and other criteria. Information may be obtained by writing to the various state optometric associations and/or auxiliaries.

The College of Optometry will provide additional information about scholarships and the college's Handbook of Loans, Scholarships, Grants, and Awards to applicants after being admitted. Many of the College's scholarships are listed on the College Website.

## Fees

Detailed information regarding current fees and residency regulations is furnished on the UMSL Cashier's website.

The university reserves the right to change fees and other charges at any time without advance notice.

## Education Fees

All students enrolled in the University must pay educational fees based on either the schedule for Missouri residents or the schedule for non-residents. All optometry students will be required to pay the non-resident educational fee if they do not meet the University of Missouri residency requirements at the time of enrollment.

For current fees and costs, please check the fee section of the Cashier's Website and be certain to select appropriately optometry resident / nonresident.

A Summer Session is required following the second and third professional year.

## Other Required Fees

All students are required to pay the following fees each semester: Information Technology Fee; Student Facility, Activity, and Health Fee; and, if needed, Parking Fee. Please refer to the Fees Section of the Cashier's website for current fees and caps on fees.

## Student Health Insurance (optional)

An Accident and Sickness Insurance plan is available to students and their dependents. Information concerning premiums and coverage is available upon request from University Health Services or call (314) 516-5671. For students registered at UMSL College of Optometry, health insurance is available through the American Optometric Student Association.

## Nonresident Students

Optometry students who do not meet the residency requirements must pay the nonresident educational fee according to the schedule above. A definition of "residency" is outlined in Tuition and Residency Rules, available in the cashier's office. (314-516-5151) Students are responsible for registering under the proper residence and paying the proper educational fees.

Twelve positions (average of three each year) are allocated by state reciprocal agreement with the State of Kansas for residents of Kansas. Individuals who are admitted under these agreements will pay reduced non-resident fees. To apply for this award, applicants must be certified as a bona fide Kansas resident and meet financial need (FAFSA). Seats are not offered until after FAFSA data is available. Additionally, Kansas residents accepting a seat are required to return to Kansas to practice following graduation or completion of a residency program. For additional information, contact:

## Kansas Board of Regents

Kansas Optometry Service Scholarship  
1000 S.W. Jackson St., Suite 520  
Topeka, KS 66612-1368  
(785) 296-3518.  
Kansas Board of Regents Website

## Four-Year Professional Degree (O.D.) Curriculum

### Curricular Outcomes

### Entry Level Standards

Doctors of Optometry must have an established knowledge of the basic and clinical sciences in order to provide quality eye and vision care to their patients. The academic foundation must be broad and include the biological, medical, vision and optical sciences, as well as a basic understanding of the health care delivery system. A Doctor of Optometry must recognize the dynamic nature of knowledge and possess the commitment and skills needed to responsibly assess and apply new information and treatment strategies throughout their career.

The UMSL College of Optometry shall ensure that before graduation each student will effectively utilize and demonstrate a working knowledge in patient care within each of the following areas:

- basic body systems, with special emphasis on the ocular and visual system and their interrelationships to the body as a whole;

- the impact of genes and their interaction with behavior, diet and the environment on human health;
- the various processes and causes that lead to dysfunction and disease and the effect that these processes can have on the body and its major organ systems, with special emphasis on the ocular and visual systems; the mechanisms of actions of the various classes of pharmaceutical agents, including injectable agents, their interactions, along with their safe and effective use for the treatment of disease and conditions affecting the eye and visual system;
- the structures and processes contributing to the development of refractive error and other optical or perceptual abnormalities of the visual system;
- the optics of the eye and ophthalmic lens systems (including spectacles, contact lenses, and low vision devices) used to correct refractive, oculomotor and other vision disorders;
- visual development and vision function with respect to deviation and enhancement of conditions such as, but not limited to, strabismus, amblyopia, oculomotor, accommodation, and visual perception;
- vision therapy and other rehabilitative methods used for the management of common visual disorders;
- the psychosocial dynamics of the doctor/patient relationship and an understanding of the social, psychological, and economic forces affecting diverse patient populations;
- the practice management structure and strategies as they pertain to various practice settings;
- the critical elements of verbal and written communications and understanding of the need for clear and appropriate documentation of patient encounters;
- the concepts of refractive surgery and its management;
- the conscientious use of current best practices in patient care decision making;
- a broad-based multidisciplinary understanding of patient care;
- an appreciation for and a commitment to lifelong learning;
- information management and technology in the delivery of eye and health care;
- and an understanding of and commitment to uphold the ethical obligations imposed by the tenets of the Optometric Oath of Practice.

## Grades

All courses taken for credit in the professional program must be passed with a "C-" or better in order for a student to qualify for graduation. The College of Optometry does not recognize a "D" grade for courses taken for degree credit; and for a student enrolled in a patient care course. Therefore, any grade lower than a "C-" will be recorded as an "F" and have "0" grade points. Furthermore, in order to qualify for graduation, a student must be in good academic standing and the cumulative professional Grade Point Average (GPA) must be 2.50 or higher. Students must submit evidence to the Office of Student Services that they have taken the 3 part NBEO examinations prior to graduation. Such evidence may include a copy of the score report received from NBEO.

To assure graduating at the end of a specific semester, all work for that semester and any delayed grades from previous semesters must be completed with the grades sent to the Office of Student Services no later than the official date for submission of final semester grades.

## Time limitations

All of the required courses during the first six (6) semesters of first course enrollment and all required courses for the O.D. degree must be completed within six (6) years after the first course enrollment.

## Continuing Education

The College of Optometry offers continuing education programs for optometrists throughout the Midwest region as well as nationwide. Courses on nutrition, management of ocular diseases, ocular anomalies, and visual skills are held on a frequent basis. In addition to College of Optometry faculty, optometric specialists, medical educators, and researchers have input into course development as well as participation in course presentations. All CE courses offered by the college are COPE approved and accepted by those states requiring continuing education credit for re-licensure.

Continuing Education course information may be obtained by contacting:

### University of MissouriSt. Louis College of Optometry

Office of Continuing Education  
One University Blvd.  
St. Louis, MO 631214499  
(314) 5165615

## Career Outlook

### Doctor of Optometry Degree

According to the American Optometric Association, Doctors of Optometry (OD's) are the independent primary health care professionals for the eye. Optometrists examine, diagnose, treat, and manage diseases, injuries, and disorders of the visual system, the eye, and associated structures as well as identify related systemic conditions affecting the eye.

- Doctors of Optometry prescribe medications, low vision rehabilitation, vision therapy, spectacle lenses, contact lenses, and perform certain surgical procedures.
- Optometrists counsel their patients regarding surgical and non-surgical options that meet their visual needs related to their occupations, avocations, and lifestyle.
- An optometrist has completed pre-professional undergraduate education in a college or university and four years of professional education at a college of optometry, leading to the doctor of optometry (O.D.) degree. Some optometrists complete and optional residency in a specific area of practice.
- Optometrists are eye health care professionals state-licensed to diagnose and treat diseases and disorders of the eye and visual system.

--Approved by the AOA Board of Trustees, 2012

As primary eye care providers, Doctors of Optometry are an integral part of the health care team and an entry point into the health care system. They are skilled in the co-management of care that affects the eye health and vision of their patients and an excellent source of referral to other health care professionals.

The scope of optometric practice requires an understanding of the development and maintenance of vision from infancy through adulthood,

and the therapeutic and rehabilitative methods required to care for eye and vision abnormalities that affect people of any age.

Optometry is the largest eye care profession and one of the largest independent health care professions in the United States. Currently, some 34,000 Doctors of Optometry practice in America. They are widely distributed across the nation, practicing in more than 7,100 different municipalities. In more than 4,300 of these communities, they are the only primary care provider. As such, Doctors of Optometry provide the major portion of primary eye care services in the United States.

Studies have indicated that a ratio of one practicing Doctor of Optometry to every 7,000 people (a ratio of 14.3 practicing doctors of optometry per 100,000 population) is a reasonable average for the United States. Despite recent growth in the profession, few states meet this criterion.

As our society becomes more technically oriented, vision requirements become more exacting. The number of persons needing professional help for reading and other nearpoint visual tasks, and computer usage among all people including young children, is steadily growing. Increased demands for vision care result not only from population growth but also from increased understanding of how quality vision relates to industrial production, student achievement, adjustments to aging, and other areas crucial to modern society.

As a result the patients have more varied and challenging needs. On any given day, a Doctor of Optometry could be involved in restoring functional vision to a partially sighted patient; fitting glasses for a child whose vision problem is affecting academic achievement; treating an eye infection with antibiotics; improving the function of a patient's eyes through vision training; helping an elderly patient in a nursing home cope with changing vision through critical eye health education; co-managing eye or systemic health problems with a physician specialist; and performing comprehensive eye examinations for those who need glasses or contact lenses to correct astigmatism, nearsightedness, and numerous other vision problems.

The practice of optometry offers independence, flexibility, and diversity. Doctors of Optometry have a wide range of modes of practice. They may choose to practice in the inner cities, suburbs, and rural areas. Opportunities exist for solo practice, associateship, optometric or multidisciplinary group practice, government or military service, clinical or hospital practice, teaching, and research.

Optometry is a rewarding career, both economically and personally. Based on data from the Bureau of Labor Statistics and surveys by professional associations, optometry is one of the top 10 income earning professions in the country.

## Optometry Courses

### ***OPTOM 8010 Anatomy, Physiology and Disease Processes I: 5 semester hours***

First in a two-semester course sequence that will detail the general anatomy of the human body along with the histology (microanatomy), physiology and disease processes of major organ systems. Course content will be presented in a modular format. Areas of discussion will include cardiovascular, respiratory, endocrine, digestive, reproductive, integumentary and peripheral and autonomic nervous systems. The laboratories will emphasize and augment important concepts introduced in the classroom environment.



**OPTOM 8020 Basic and Clinical Optics I: 4 semester hours**

Prerequisites: Consent of instructor. The principles of geometrical optics as applied to refracting and reflecting surfaces, thin lenses, thick lenses, and lens systems. The optics of various ophthalmic instruments and techniques will be examined.

**OPTOM 8030 Introduction to Optometry: 1 semester hour**

An introduction to the profession of optometry, including a consideration of the characteristics of a profession, the behaviors and attitudes of a professional, the history of optometry, the profession's legal basis, the major optometric organizations and sources and types of information available to optometrists. One hour of lecture per week.

**OPTOM 8040 Neuroanatomy: 4 semester hours**

Prerequisites: Consent of instructor. Detailed gross and microscopic anatomy of human central nervous system with a special emphasis on the cranial nerves, nuclei, and the visual system.

**OPTOM 8060 Biochemistry: 3 semester hours**

Basic concepts of general and cellular biochemistry. Study of nomenclature structure, and reactions of organic molecules. Some emphasis on visual system - tears, intraocular fluids, lens, and photochemistry.

**OPTOM 8090 Case Based Discovery For The Developing Clinician: 1 semester hour**

Students acquire curricular competencies appropriate for the professional year in which they are enrolled via in depth individual and group discovery via case based presentations. The experience will provide students the opportunity to assimilate and recognize the relationships among diverse topics emphasized within the optometric curriculum. Participants work in groups of no more than 10.

**OPTOM 8110 Anatomy, Physiology And Disease Process II: 5 semester hours**

Prerequisite: OPTOM 8010 Continuation of OPTOM 8010 Anatomy, Physiology and Disease Processes I.

**OPTOM 8120 Basic & Clinical Optics II: 5 semester hours**

Prerequisite: OPTOM 8020. Radiometry and photometry, polarization, scattering, emmetropia, myopia, hyperopia, astigmatism, models of experimental myopia, accommodation, diffraction, retinal image size, entoptic phenomena, aberrations, lasers and the eye, apertures, and optical instruments.

**OPTOM 8160 Anatomy And Physiology Of The Eye: 5 semester hours**

Prerequisites: OPTOM 8040, OPTOM 8010 or consent of instructor. Vegetative anatomy and physiology of the eye, optic nerve, orbit, and adnexa will be discussed. This includes discussion of embryology and the dynamics of ocular fluids. Four lecture hours and a two-hour laboratory per week.

**OPTOM 8180 Clinical Optometry I: 5 semester hours**

Prerequisites: OPTOM 8030. Selected tests for ocular assessment including case history, visual acuity, ophthalmoscopy, refraction, and binocular integration. The course format is two 75-minute lectures and two 2-hour laboratories.

**OPTOM 8190 Introduction to Clinical Diagnostic Reasoning: 1 semester hour**

Prerequisite: OPTOM 8090. Introduction to clinical diagnostic reasoning by individual and group case-based learning. Scenarios give students an understanding of the relationship between basic and clinical sciences and provide an introduction to established best practices.

**OPTOM 8220 Ophthalmic Optics: 4 semester hours**

Prerequisites: OPTOM 8120. Ophthalmic materials, physical characteristics of lenses and frames, paraxial optics of ophthalmic lenses, ophthalmic prisms, lens specifications, special lenses, multifocal lenses, unique designs, aniseikonic lenses, aberration theory and its application to lens design, lenses for low vision, protective eyewear.

**OPTOM 8230 Interpersonal Communications: 2 semester hours**

Prerequisites: OPTOM 8030. Principles of human interpersonal relationships. The enhancement of listening and verbal skills will be provided. Emphasis will be preparing the student to understand and manage the many human interpersonal relationships necessary in the practice of optometry. Two hours of lecture per week.

**OPTOM 8240 Ocular Motility: 2 semester hours**

Prerequisites: OPTOM 8040 or consent of instructor. The anatomy, physiology, neurology, measurement, characteristic, and control of the intra- and extraocular system.

**OPTOM 8250 Monocular Sensory Processes: 5 semester hours**

Prerequisite: OPTOM 8160 or consent of instructor. Monocular sensory processes of vision: phototransduction, visual neurophysiology, spatial and temporal vision, acuity, light adaptation and discrimination, color, motion, objects and attention. Sensory processes are considered from both the psychophysical aspects and neurophysiological bases, including the changes during development, adulthood and aging. Four hours of lecture and two hours of laboratory per week.

**OPTOM 8260 Foundations Of Ocular And Systemic Disease And Management I: 4 semester hours**

Prerequisites: OPTOM 8110 The first of a comprehensive, three semester course sequence. Topics will be discussed in a modular, systems based approach. The course introduces students to disease processes and the organ systems they affect, clinical diagnoses, pharmacology on specified organ systems and optometric and medical management of ocular and systemic disease.

**OPTOM 8280 Clinical Optometry II: 5 semester hours**

Prerequisites: OPTOM 8180 Continuation of clinical optometry. Patient care in the areas of refraction, binocular integration, perimetry, and biomicroscopy.

**OPTOM 8320 Ophthalmic Dispensing: 1 semester hour**

Prerequisites: OPTOM 8220. Clinical experience in verification and dispensing of ophthalmic materials.

**OPTOM 8340 Binocular Vision And Space Perception: 4 semester hours**

Prerequisites: OPTOM 8240, OPTOM 8280 and OPTOM 8250 or consent of instructor. Binocular vision and space perception. Visual direction, theory of correspondence, fusion, rivalry, ocular dominance, and stereopsis. Developmental aspects and neurophysiological mechanisms.

**OPTOM 8350 Epidemiology: 2 semester hours**

A review of descriptive statistics, probability sampling, correlation, and prediction. The essentials of epidemiological study procedures and a discussion of the epidemiology of vision disorders.

**OPTOM 8370 Foundations Of Ocular And Systemic Disease And Management II: 7 semester hours**

Prerequisite: OPTOM 8260. A continuation of a comprehensive, systems based course sequence that introduces students to disease processes and the organ systems they affect, clinical diagnoses, pharmacology on specified organ systems and optometric and medical management of ocular and systemic disease. The laboratories will emphasize and augment important concepts introduced in the classroom environment.

**OPTOM 8380 Clinical Optometry III: 2 semester hours**

Prerequisites: OPTOM 8280. Continuation of Clinical Optometry II. Diagnosis, prognosis and management of visual problems. Emphasis on conducting comprehensive eye exams in preparation for the initial clinical privileging examination.

**OPTOM 8390 Specialty Clinic Laboratory: 1 semester hour**

Prerequisite: OPTOM 8280. Students acquire and practice skills for pediatric, binocular vision, low vision, and contact lens examinations. The course format is one 2-hour laboratory per week.

**OPTOM 8391 Clinical Topics in Contact Lenses: 1 semester hour**

Prerequisite: OPTOM 8280. This is the first in a series of 3 courses addressing contact lenses. The focus is on contact lens care and evaluation. The course format is one 50-minute lecture per week.

**OPTOM 8392 Clinical Topics in Binocular Vision and Pediatric Optometry: 1 semester hour**

Prerequisite: OPTOM 8240 and OPTOM 8280. This course presents clinical diagnostic and management skills for both pediatric patients and those with binocular vision anomalies. The course format is lecture.

**OPTOM 8393 Clinical Topics in Low Vision: 1 semester hour**

Prerequisite: OPTOM 8280. This course presents clinical diagnostic and management skills for patients with low vision. The course format is one 50-minute lecture per week.

**OPTOM 8400 Directed Readings: 1-3 semester hours**

Prerequisite: Consent of Instructor. Credit is given for independent literature review of a specific topic in any area of basic or clinical vision science guided by a full time faculty member with appropriate interests. Credit is awarded upon approval of a written paper regarding the selected topic. This elective may be repeated up to a total of 3 credit hours.

**OPTOM 8410 Directed Research: 1-3 semester hours**

Prerequisite: Consent of Instructor. Credit is given for independent research. Projects may be laboratory, library, or clinically based research in any area of vision science. Projects will be supervised by one or more full time faculty members. This elective may be repeated up to a total of 6 credit hours.

**OPTOM 8500 Primary Care Clinic I: 6 semester hours**

Prerequisites: OPTOM 8380 and successful completion of all first and second year coursework required. The clinical examination and care of general clinic patients, along with the fitting and dispensing of lenses and frames.

**OPTOM 8520 Contact Lenses I: 3 semester hours**

Prerequisites: OPTOM 8380 and OPTOM 8391. Historical development of the contact lens and its use. Basic lens terminology, specifications, physiochemical characteristics, optics, fabrication, and verification. Preliminary patient evaluation, indications and contraindications for contact lenses. Basic fitting philosophies for all lens types. Lens care and patient education. Patient and practice management considerations.

**OPTOM 8540 Binocular Vision Anomalies: 4 semester hours**

Prerequisites: OPTOM 8340, OPTOM 8380 and OPTOM 8392 or consent of instructor. The etiology, epidemiology, symptoms, signs, and course sequelae of the obstacles to binocular vision-sensory, integrative, and motor. The detection, diagnosis, prognosis, and orthoptic treatment of such anomalies. Clinical care of aniseikonias.

**OPTOM 8550 Low Vision: 2 semester hours**

Prerequisite: OPTOM 8380 and OPTOM 8393. The etiology, epidemiology, symptoms, signs, course, and sequelae of low vision problems. Methods of testing, prognosis, selection of therapy, design of environmental and optical aids, problems of rehabilitation. Agencies, laws, public and social assistance for the partially sighted and blind. The course format is lecture and 1 two-hour laboratory per week.

**OPTOM 8560 Public Health: 2 semester hours**

A review of local, state and federal organizations involved in health care, comprehensive health planning, new trends in health care delivery. The assessment of the quality of health care delivery. The relationship of vision care to these topics is emphasized.

**OPTOM 8570 Advanced Topics In Ocular And Systemic Disease And Management: 6 semester hours**

Prerequisite: OPTOM 8370. The third semester of a comprehensive, systems based course sequence. Advanced topics in diagnoses as well as optometric and medical management of ocular and systemic disease will be discussed. The laboratories will emphasize and augment important concepts introduced in the classroom environment.

**OPTOM 8600 Primary Care Clinic II: 6 semester hours**

Prerequisites: OPTOM 8500 and successful completion of all Fall semester third year coursework required. Continuation of Primary Care Clinic I.

**OPTOM 8610 Environmental Vision: 2 semester hours**

Prerequisites: OPTOM 8500. This course considers the relationship of the eye and vision to all aspects of one's environment including home, work, recreation, and transportation. Emphasis will be placed on protecting the eye from injury and maximizing vision performance.

**OPTOM 8620 Contact Lenses II: 2 semester hours**

Prerequisites: OPTOM 8520. Advanced contact lens fitting, theories, and clinical methods for astigmatic, presbyopic, keratoconic, and aphakic designs. Special considerations include the use of corneal topography, orthokeratology, disposable lenses, lenses for extended wear and lenses for color deficiencies. The course format is one lecture per week.

**OPTOM 8630 Practice Management III: 3 semester hours**

Prerequisites: OPTOM 8030 and OPTOM 8230. The development and management of an optometric practice from a patient and community service point of view - office design, office routine, patient care administration, personnel management, recall systems. The establishment, development and management of an optometric practice from a business point of view. Legal developments, governmental regulations, legislation and the legislative process, malpractice, professional ethics, taxes, fee structures, insurance and accounting methods.

**OPTOM 8640 Pediatric Optometry: 2 semester hours**

Prerequisites: OPTOM 8380 and OPTOM 8540. Special examination and management considerations of the pediatric patient. Psychological, physiological, social, and demographic aspects of early visual development. Discussion of the optometric considerations of children with learning and reading disabilities. The course format is two lecture/discussions per week.

**OPTOM 8650 Geriatric Optometry: 2 semester hours**

Prerequisite: OPTOM 8380. Special examination and management considerations of the geriatric patient will be discussed. Psychological, physiological, social, and demographic aspects of aging, as well as ocular changes associated with the aging process will be taught.

**OPTOM 8660 Contact Lens Specialty Clinic: 1 semester hour**

Prerequisites: OPTOM 8391. The clinical examination and care of patients in the optometric specialty area of contact lenses.

**OPTOM 8670 Comprehensive Case Review and analysis: 1 semester hour**

Prerequisites: Enrollment in OPTOM 8500 or OPTOM 8600. Discussion of the diagnosis and management of common clinic patient encounters via Socratic teaching techniques. Interns are encouraged to present actual cases which have been particularly challenging for them. The course format is a weekly seminar.

**OPTOM 8680 Ophthalmic Lasers: 1 semester hour**

Prerequisites: OPTOM 8570. Principles and applications of lasers for ophthalmic use. Emphasis will be placed on demonstration where possible. Topics will include the principles, physics and safety concerns of ophthalmic lasers. Lasers used in retinal imaging, and in the care of glaucoma, cataract, refractive conditions, and cosmetic conditions will be discussed and demonstrated. Co-management of patients requiring ophthalmic laser treatment will also be covered.

**OPTOM 8690 Pediatric/Binocular Vision Specialty Clinic: 1 semester hour**

Prerequisites: OPTOM 8392. The clinical examination and care of patients in the optometric specialty areas of binocular vision and pediatric vision.

**OPTOM 8700 Um-St. Louis Pediatric/Binocular Vision Patient Care: 3 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of patients in pediatric/binocular vision clinic at the University of Missouri-St. Louis Center for Eyecare. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8710 and OPTOM 8720.

**OPTOM 8710 Um-St. Louis Contact Lens Patient Care: 3 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework required Comprehensive clinical care in the contact lens clinic at the University of Missouri-St. Louis Center for Eyecare. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8700 and OPTOM 8720.

**OPTOM 8720 Umsl Eye Health Management Patient Care: 1 semester hour**

Prerequisites: Successful completion of all first, second, and third year course work. Comprehensive clinical care in the eye health management clinic with ophthalmologists at the University of Missouri-St. Louis University Eye Center. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8700 and OPTOM 8710.

**OPTOM 8730 Community Service Patient Care Rotation A: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of patients at St. Louis area community health centers. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8750 Community Service Patient Care Rotation B: 7 semester hours**

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of patients at St. Louis area community health centers. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8760 Harvester Eye Care: 7 semester hours**

Prerequisite: Successful completion of all first, second and third year course work. Comprehensive clinical care of patients at the Harvester Center for Eye Care. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8770 Community Service Patient Care Rotation C: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of patients at St. Louis area community health centers. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8780 External Rotation In Institutional Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of primary care patients at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8790 External Rotation In Ocular Disease Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of patients with ocular disease at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8800 External Rotation In Pediatric/Binocular Vision Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of pediatric/binocular vision patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8810 External Rotation In Contact Lens Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of contact lens patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8811 External Rotation In Ophthalmic Surgical Patient Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Ophthalmic Surgical Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8812 External Rotation In Geriatric Patient Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Geriatric Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8813 External Rotation In Ophthalmic Sports Vision: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Sports Vision Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8814 External Rotation In Primary Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Primary Care Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8815 External Rotation In Pathology And Treatment: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care in pathology and treatment of patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8816 External Rotation In Ophthalmic Laser Treatment: 7 semester hours**

Prerequisites: Successful Completion of all second and third year coursework. Comprehensive clinical care in ophthalmic laser treatment of patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8817 External Rotation In Rehabilitative Patient Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care in Rehabilitative Patient Care at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8820 External Rotation In Low Vision Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of low vision patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8830 External Rotation In General Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of a general population of optometric patients at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8840 External Supplementary Rotation In General Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of general population of optometric patients at external site approved by the School of Optometry's Externship Council.

**OPTOM 8850 Supplementary Rotation In General Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of general population of optometric patients at the UM-St. Louis Center for Eye Care, UM-St. Louis Optometric Center, or the UM-St. Louis East St. Louis Eye Center.

**OPTOM 8870 Practice Management IV: 2 semester hours**

Prerequisites: Successful completion of all first, second and third year. Further in-depth discussion in practice management.

**OPTOM 8880 Clinic Seminar: 1 semester hour**

Prerequisites: Successful completion of all first, second and third year. Presentation and discussion of interesting clinical patients. Additional clinical testing techniques and concepts. Further discussion of patient data analysis-the process of determining diagnosis, prognosis, and therapy. Further discussions in the optometric specialities.

**OPTOM 8970 Geriatric Patient Care Delivery: 3-6 semester hours**

Prerequisite: Consent of Geriatric Residency Instructors. Direct optometric patient care to a population that is largely geriatric. Emphasis will be on integrating specialty care available for these patients to provide comprehensive vision care. Two hours of direct patient care per week are required per hour of credit. In addition, the student will attend weekly supervisory meetings. May be repeated with consent of instructor for a total of 18 credits. Patient care will become more independent of direct supervision and the type of patients seen will be more varied with each repeat.

## Vision Science Courses

**VIS SCI 6400 Sensory Processes And Perception: 3 semester hours**

Prerequisite: Graduate standing in vision science or consent of instructor. Current views on the encoding of various aspects of the visual stimulus (intensity, space, time, and wavelength) that give rise to the perceptions of brightness, contour, motion and color will be considered in this course. The psychophysical tools available to examine visual encoding will be emphasized. Other topics will include binocular vision and depth perception, information processing approaches to visual pattern recognition, and the similarities and interactions of the visual system with the other sensory modalities.

**VIS SCI 6401 Visual Optics: 3 semester hours**

Prerequisite: graduate standing in vision science or consent of instructor. This course deals with the optical properties of the eye. Included are a review of general optics including physical optics, paraxial and nonparaxial geometric optics, image quality, radiometry and photometry, and optical instrumentation. Topics in visual optics will include schematic eyes, measurement of the refractive errors, visual axes, spectral absorption by the ocular media, and the optical performance of the eye.

**VIS SCI 6402 Ocular Anatomy And Physiology: 3 semester hours**

Prerequisite: graduate standing in vision science or consent of instructor. The structures and fluids of the eye and orbit, their interactions and functions are considered in this course. Specific topics include the eyelids. Tearfilm, conjunctiva, cornea. Iris, ciliary body, vasculature, aqueous humor, vitreous body, and the retina.

**VIS SCI 6403 Psychophysical Methods And Experimental Design: 3 semester hours**

Prerequisite: Graduate standing in vision science or consent of instructor. Advanced methodology for the design and analysis of experiments in a variety of areas of visual science are considered in this course. Both basic and applied topics will be considered. Special emphasis will be placed on psychophysical methodology, signal detection analysis, and scaling techniques.



**VIS SCI 6404 Sensory Neuroscience: 3 semester hours**

Prerequisite: Graduate standing in vision science or consent of instructor.

This course will deal with the neural organization of the sensory system with an emphasis on vision. It will include a review of general neurophysiology and neuroanatomy as they relate to the processing of environmental stimuli into neural information as well as experimental approaches utilized in neurobiology. Topics to be covered include: neural transduction and sensory coding by receptors and neurons, constraints on perception defined by the functional organization of the nervous system, sensory development and plasticity as related to neural development, and evolution of sensory systems.

**VIS SCI 6405 Neuroanatomy: 5 semester hours**

Prerequisite: Graduate standing. Detailed gross and microscopic anatomy of the human central nervous system with a special emphasis on the cranial nerves, nuclei, and the visual system. Students may not receive credit for both VIS SCI 6405 and OPTOM 8040.

**VIS SCI 6406 Geometric Optics: 5 semester hours**

Prerequisite: Graduate Standing. The principles of geometrical optics as applied to refracting and reflecting surfaces, thin lenses, thick lenses, and lens systems. The optics of various ophthalmic instruments and techniques will be examined. A student may not receive credit for both VIS SCI 6406 and OPTOM 8020.

**VIS SCI 6470 Individual Studies In Vision Science: 2 semester hours**

Prerequisite: Consent of instructor. This course designation can be used to cover a variety of topics in visual science. In general, very specific topics of limited interest will be presented as individual studies. Individual studies and advanced topics enable the student's course of study to be sharply tuned to his or her major area of interest.

**VIS SCI 6490 Graduate Research In Vision Science: 1-15 semester hours**

Prerequisite: Consent Of Instructor. Research In An Area Selected By The Student In Consultation With Faculty Members. May Be Taken To A Maximum Of Ten Hours For The M.S. And 15 Hours For The Ph.D.

**VIS SCI 6497 Interdisciplinary Geriatric Care: 3 semester hours**

Same as GERON 6497. Prerequisites: Consent of instructor. Interdisciplinary approaches that address the medical, social, instrumental and functional needs of older adults will be examined. Information about geriatric care management and social issues affecting the well-being of older adults will be provided. Clinical, theoretical, and educational perspectives will be presented.

**VIS SCI 6499 Current Topics In Optometry And Vision Science: 1 semester hour**

Prerequisite: Consent of instructor this seminar course examines and analyzes current publications in eye care and vision research.

## Curriculum

### First Year

#### Fall Semester

Semester	Credit Hours	Lecture	Lab
8010 Anatomy, Physiology and Disease Processes I	5	4	2
8020 Basic and Clinical Optics I	4	3	2

8030 Introduction to Optometry	1	1	
8040 Neuroanatomy	4	3	2
8060 Biochemistry	3	3	
8090 Case Based Discovery for the Developing Clinician	1	1	
8350 Epidemiology	2	2	

### Spring Semester

Semester	Credit Hours	Lecture	Lab
8110 Anatomy, Physiology and Disease Processes II	5	4	2
8120 Basic and Clinical Optics II	5	4	2
8160 Anatomy and Physiology of the Eye	5	4	2
8180 Clinical Optometry I	5	3	4
8190 Introduction to Clinical Diagnostic Reasoning	1	1	

### Second Year

#### Fall Semester

Semester	Credit Hours	Lecture	Lab
8220 Ophthalmic Optics	4	3	2
8230 Interpersonal Communications	2	2	
8240 Ocular Motility	2	2	
8250 Monocular Sensory Processes	5	4	2
8260 Foundations of Ocular and Systemic Disease and Management I	4	3	2
8280 Clinical Optometry II	5	3	4

### Spring Semester

Semester	Credit Hours	Lecture	Lab
8320 Ophthalmic Dispensing	1		2

8340 Binocular Vision and Space Perception	4	3	2
8370 Foundations of Ocular and Systemic Disease and Management II	7	6	2
8380 Clinical Optometry III	2	1	2
8390 Specialty Clinic Laboratory	1		2
8391 Clinical Topics in Contact Lenses	1	1	
8392 Clinical Topics in Binocular Vision and Pediatric Optometry	1	1	
8393 Clinical Topics in Low Vision	1	1	
8560 Public Health	2	2	

## Third Year

### Fall Semester

Semester	Credit Hours	Lecture	Lab
8500 Primary Care Clinic I	6		12
8520 Contact Lenses I	3	2	2
8540 Binocular Vision Anomalies	4	3	2
8550 Low Vision	2	1	2
8570 Advanced Topics in Ocular and Systemic Disease and Management	6	5	2
8650 Geriatric Optometry	2	2	

### Spring Semester

Semester	Credit Hours	Lecture	Lab
8600 Primary Care Clinic II	6		12
8610 Environmental Vision	2	2	
8620 Contact Lenses II	2	2	
8630 Practice Management III	3	3	

8640 Pediatric Optometry	2	2	
8660 Contact Lens Specialty Clinic	1		2
8670 Comprehensive Case Review and Analysis	1	1	
8680 Ophthalmic Lasers	1	1	
8690 Pediatric / Binocular Vision Specialty Clinic I	1		2

## Fourth Year

### Category 1 UMSL

Note: Must enroll in 8700, 8710 and 8720 concurrently

Semester	Credit Hours	Lecture	Lab
8700 UMSL Pediatric/ Binocular Vision Patient Care	3		6
8710 UMSL Contact Lens Patient Care	3		6
8720 UMSL Eye Health Management Patient Care	1		2

### Category 2 Institutional

Semester	Credit Hours	Lecture	Lab
8780 External Rotation in Institutional Patient Care	7		14

### Category 3 Ocular Disease

Semester	Credit Hours	Lecture	Lab
8790 External Rotation in Ocular Disease Patient Care	7		14

### Category 4 Intern

Semester	Credit Hours	Lecture	Lab
8730 Community Service Patient Care Rotation A	7		14
8750 Community Service Patient Care Rotation B	7		14
8760 Harvester Eye Center Patient Care	7		14

8770 Community Service Patient Care Rotation C	7		14
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### Category 5 Specialty

Semester	Credit Hours	Lecture	Lab
8800 External Rotation in Pediatric/Binocular Vision Patient Care	7		14
8810 External Rotation in Contact Lens Patient Care	7		14
8811 External Rotation in Ophthalmic Surgical Patient Care	7		14
8812 External Rotation in Geriatric Patient Care	7		14
8813 External Rotation in Ophthalmic Sports vision	7		14
8814 External Rotation In Primary Care	7		14
8815 External Rotation in Pathology and Treatment	7		14
8816 External Rotation in Ophthalmic Laser Treatment	7		14
8817 External Rotation in Rehabilitative Patient Care	7		14
8820 External Rotation in Low Vision Patient Care	7		14

### Category 6 Elective

Semester	Credit Hours	Lecture	Lab
8830 External Rotation in General Patient Care	7		14

8840 External Supplementary Rotation in General Patient Care	7		14
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8850 Supplementary Rotation in General Patient Care	7		14
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### Required Courses

Semester	Credit Hours	Lecture	Lab
8870 Practice Management IV	2	2	
8880 Clinical Seminar	1	1	

Due to advances in the optometric profession, sequencing of courses may change. The courses listed above are subject to change through normal academic procedures.

### Elective Courses in the College of Optometry

OPTOM 8400	Directed Readings	1-3
OPTOM 8410	Directed Research	1-3
OPTOM 8420		2
OPTOM 8470		1
OPTOM 8910		3
OPTOM 8970	Geriatric Patient Care Delivery	3-6

### Graduate Vision Science Courses Approved for Elective Credit\*

OPTOM 6400	3
OPTOM 6401	3
OPTOM 6402	3
OPTOM 6403	3
OPTOM 6404	3
OPTOM 6470	2
OPTOM 6490	1-15
OPTOM 6497	2
OPTOM 6499	1

# The Graduate School

The Graduate School of the University of Missouri-St. Louis serves over 3000 students in 29 master's programs and over 600 students in 13 doctoral programs by managing assistantship, fellowship, and research programs. Graduate School staff seek ways to enhance students' relationships with the university, from the time they are admitted until they graduate. To maintain quality, staff also assure that policies established by the graduate faculty are followed.

## Graduate Programs

<http://www.umsl.edu/divisions/graduate/future/index.html>

## Graduate School Policies

<http://bulletin.umsl.edu/generalregulations/graduatestudy/>

## Public Policy Administration

### General Information

The University of Missouri-St. Louis' Public Policy Administration (P P ADM) program has three components: the Master of Public Policy Administration (MPPA) degree program, the Nonprofit Management and Leadership Program (NPML), and the Local Government Partnership (LGP).

The Master of Public Policy Administration (MPPA) is an interdisciplinary program designed to prepare students for managerial and policy analysis positions in the public and nonprofit sectors or related organizations. The MPPA is part of the Public Policy Administration Program, an independent unit of the UMSL Graduate School, and is accredited by the Network of Schools of Public Policy, Affairs, and Administration (<http://naspa.org>).

A key strength of the program is the experienced faculty, who are all committed to the success of our students. Core faculty members hold joint appointments in public policy administration and related departments, such as economics, political science, sociology, and business administration. Adjunct instructors also have considerable professional, educational, and teaching experience and play an important role in connecting our students with the professional community.

The full facilities of Campus Computing and the Laboratory for Quantitative Analysis are available. UMSL is a member of the Inter-University Consortium for Political and Social Research, the Association for Public Policy & Management (APPAM), Nonprofit Academic Centers Council (NACC), and NASPAA.

### Career Outlook

The current outlook for graduates of the interdisciplinary Master of Public Policy Administration Program is quite promising. Recent graduates of this program have taken positions as budget analysts, transportation planners, and human resources managers with local, regional, state, and federal agencies, and the nonprofit sector.

### Admissions Requirements

Applicants must meet the following program admission requirements in addition to the general requirements of the Graduate School.

By the time of enrollment, prospective students must have obtained a baccalaureate degree or the equivalent from an accredited college or university. A minimum GPA of 3.0 on a 4.0 scale is required to be

considered for regular admission. This GPA is higher than the minimum for the Graduate School. An undergraduate GPA below 3.0 will be considered on an individual basis for restricted admission. Applicants must demonstrate proficiency in college algebra or the equivalent. Graduate coursework also will be taken into consideration.

Applicants must obtain three letters of recommendation. The letters should be from those who are familiar with your professional and/or academic skills. At least one of the letters must be from a current or former college-level instructor. Written letters of recommendation must accompany the downloadable recommendation forms from the Graduate School. These materials should be sent by the letter writer directly to the MPPA program.

Applicants are required to submit a 2-3 page personal statement to demonstrate competence in writing. The statement should explain how the MPPA program fits in with the applicant's educational and professional goals. This personal statement should be sent directly to the MPPA program; the statement of purpose in the web-based admission application is not sufficient.

Applicants must submit official transcripts to the graduate admissions office documenting the baccalaureate degree and all other prior college and graduate-level coursework completed.

### Degree Requirements

The MPPA degree consists of 40 credit hours, 28 of which are taken as part of the core curriculum and 12 that are electives. Students who complete the degree must demonstrate the following:

- Design, research, write, and defend analyses of substantive public policy problems and/or potential solutions
- Use data and sophisticated analytic tools (qualitative and quantitative) to conduct research in public policy and administration
- Understand the policy and internal/external environments of public and nonprofit organizations
- Develop expertise in a substantive area of public policy administration

### Core Curriculum

All candidates for the MPPA degree must complete 28 hours in the core curriculum sequence composed of the following public policy administration courses:

#### Policy Analysis and Economics

P P ADM 6000 (p. 430)	Introduction To Policy Analysis	3
P P ADM 6080 (p. 430)	Microeconomics For Policy Analysis	3
P P ADM 6210 (p. 430)	Public Sector Microeconomics	3
P P ADM 6900 (p. 430)	Cases In Public Policy Administration	3

#### Public Administration and Budgeting

P P ADM 6400 (p. 430)	Proseminar In Public Administration	3
P P ADM 6600 (p. 430)	Organizational Behavior And Administrative Processes	3
P P ADM 6180 (p. 430)	Governmental Budgeting And Financial Control	3

#### Statistics, Research Methods, and Information Technology



P P ADM 6010 (p. 430)	Introduction To Policy Research	3
P P ADM 6750 (p. 430)	Introduction To Evaluation Research Methods	3
P P ADM 6850 (p. 430)	Information Technology and The Public and Nonprofit Sectors	1
Total Hours		28

A thesis is not required to complete the program. However, writing is an important component of the degree, and students will complete written analyses as part of their coursework and/or internship.

P P ADM 6000 (p. 430) should be taken at the beginning of the program. It is strongly recommended that P P ADM 6010 (p. 430) and P P ADM 6080 (p. 430) be taken early in a student's course plan. P P ADM 6900 (p. 430) is a capstone course and must be taken toward the end of the program.

Students may select one of four emphasis areas in which to concentrate their advanced studies:

1. Managing Human Resources and Organizations,
2. Policy Research and Analysis,
3. Local Government Management,
4. Nonprofit Organization Management.

Students may also select an individualized emphasis area in consultation with their advisor and with approval of the Director.

Prior to the completion of 15 hours in the MPPA program, students should identify an emphasis area. In each of the emphasis areas students may be able to substitute another course for a specified elective, with the MPPA Director's approval. Specific requirements for each emphasis area are as follows:

### Managing Human Resources and Organizations

#### a. Required

P P ADM 6490 (p. 430)	Human Resources In The Public Sector	3
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#### b. Electives

Select three of the following: 9

ECON 5400 (p. 430)	Labor Economics: Theory And Public Policy	
MGMT 5611 (p. 430)	Advanced Organizational Behavior And Administrative Processes	
MGMT 5622 (p. 430)	Union-Management Relations And Collective Bargaining	
MGMT 5625 (p. 430)	Selected Topics In Human Resource Management	
P P ADM 6500 (p. 430)	Selected Topics in Public Policy Administration (when topic is relevant to Human Resource and Organized Behavior)	
P P ADM 6680 (p. 430)	Negotiating Workplace Conflict	
P P ADM 6950 (p. 430)	Internship (in assignment relevant to emphasis area)	

POL SCI 3470 (p. 430)	Collective Bargaining	
Total Hours		12

### Policy Research and Analysis

#### a. Required

POL SCI 6402 (p. 430)	Intermediate Techniques In Policy Research	3
or ECON 4100 (p. 430)	Introduction To Econometrics	

#### b. Electives

Select three of the following: 9

POL SCI 6403 (p. 430)	Advanced Techniques In Policy Research	
or ECON 4110 (p. 430)	Applied Econometrics	
ECON 4160 (p. 430)	Geospatial Analysis In The Social Sciences	
ECON 4170 (p. 430)	Fundamentals Of Cost-Benefit Analysis	
ECON 4550 (p. 430)	Natural Resource Economics	
ECON 5400 (p. 430)	Labor Economics: Theory And Public Policy	
ECON 5640 (p. 430)	Transportation Economics	
ECON 5700 (p. 430)	Urban and Real Estate Economics	
ECON 5720 (p. 430)	Real Estate Economics	
ECON 5760 (p. 430)	Health Economics	
ECON 5900 (p. 430)	Advanced Topics In Economic Analysis	
POL SCI 6404 (p. 430)	Multi-Method Research Design	
POL SCI 6422 (p. 430)	Law, Courts And Public Policy	
POL SCI 6444 (p. 430)	Seminar In Public Policy And Aging	
POL SCI 6452 (p. 430)	Public Policy Of Conservation And Sustainable Development	
SOC 4040 (p. 430)	Survey Research Practicum for Sociology	
SOC WK/POL SCI 6443 (p. 430)	Health Care Policy	
P P ADM 6950 (p. 430)	Internship (in assignment relevant to the emphasis area)	

Total Hours 12

### Local Government Management

#### a. Required <sup>1</sup>

P P ADM 6340 (p. 430)	Seminar In City Administration	3
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or P P ADM 6350 Issues In Urban Management (p. 430)	
POL SCI 6470 (p. Proseminar In Urban Politics 430)	3
or POL SCI 6471 Seminar In Urban Politics (p. 430)	
<b>b. Electives</b> <sup>2</sup>	
Select two of the following:	6
P P ADM 6300 Leadership and Management in Nonprofit (p. 430) Organizations	
P P ADM 6340 Seminar In City Administration (p. 430)	
P P ADM 6350 Issues In Urban Management (p. 430)	
P P ADM 6490 Human Resources In The Public Sector (p. 430)	
P P ADM 6510 Urban And Regional Planning And Public Policy (p. 430)	
P P ADM 6680 Negotiating Workplace Conflict (p. 430)	
P P ADM 6950 Internship (in assignment relevant to emphasis (p. 430) area )	
ECON 4160 Geospatial Analysis In The Social Sciences (p. 430)	
ECON 5510 Public Choice (p. 430)	
ECON 5700 Urban and Real Estate Economics (p. 430)	
POL SCI 4460 Urban Planning And Politics (p. 430)	
POL SCI 6470 Proseminar In Urban Politics (p. 430)	
POL SCI 6471 Seminar In Urban Politics (p. 430)	
<b>Total Hours</b>	<b>12</b>

<sup>1</sup> For Local Government Management specialization, a course not taken to fulfill the "required 6 hours" may be taken as an elective.

<sup>2</sup> NOTE: Students interested in careers in local government management are strongly encouraged to take P P ADM 6490 (p. 430), Human Resources in the Public Sector, as one of their electives.

### Nonprofit Organization Management and Leadership

#### a. Required

P P ADM 6300 Leadership and Management in Nonprofit (p. 430) Organizations	3
P P ADM 6310 American Philanthropy and Nonprofit Resources (p. 430) Development	3
P P ADM 6311 Staff Management Issues in Nonprofit (p. 430) Organizations	1
P P ADM 6312 Legal Issues in Managing Nonprofit Organizations (p. 430)	1
P P ADM 6313 Financial Issues In Managing Nonprofit (p. 430) Organizations	1

#### b. Electives

Select one of the following:	3
ACCTNG 3451 Accounting For Governmental And Not-For-Profit (p. 430) Entities	
BUS AD 5100 Managerial Communication (p. 430)	
BUS AD 5900 Law, Ethics And Business (p. 430)	
MKTG 5700 Contemporary Marketing Concepts (p. 430)	
P P ADM 6490 Human Resources In The Public Sector (p. 430)	
P P ADM 6501 Selected Topics in Nonprofit Management and (p. 430) Leadership	
P P ADM 6550 Strategic And Program Planning For Non Profit (p. 430) Organizations	
P P ADM 6680 Negotiating Workplace Conflict (p. 430)	
P P ADM 6950 Internship (in assignment relevant to the emphasis (p. 430) area)	
PSYCH 7412 Social Psychology (p. 430)	
<b>Total Hours</b>	<b>12</b>

### Individualized Emphasis Area

Prior to the completion of 15 hours in the MPPA program, the student must present a proposal for 12 hours of specific coursework for approval by the MPPA faculty. The 12 hours must include P P ADM 6950 (p. 430), Internship (in an assignment relevant to the emphasis area) unless the student has significant public or nonprofit sector experience.

### Internships

An internship is required for students without substantial experience in the public or nonprofit sectors. Interns may be placed in planning agencies, city managers' offices, administrative departments, or nonprofit agencies. Credit is granted after successful completion of the internship and a written paper at the end of the semester.

MPPA students currently employed in public agencies or nonprofit organizations can receive 3 hours of credit for internships with their employer. To do so, students must develop, in consultation with their advisors, special research projects outside the scope of their regular employment duties.

Students who have significant relevant experience in the public or nonprofit sector may request that the internship requirement be waived. To request a waiver, students must submit a written request outlining the student's professional or managerial field experience with appropriate documentation. Any request for a waiver from the internship requirement must be approved by the program director. Students who receive a waiver must take an additional 3 hours of electives in lieu of the internship.

### BSPPA/MPPA 2+3 Program in Public Policy Administration

The BSPPA / MPPA 2+3 program is an accelerated program that allows outstanding BSPPA students to complete a baccalaureate degree and Master of Public Policy Administration (MPPA) degree in five years. The program allows students to apply 12 of the MPPA credit hours towards

the BS, reducing the overall required hours for the two degrees from the standard 160 – 120 for the BS plus 40 for the MPPA – to 148 hours.

## Core Curriculum

All candidates for the MPPA degree must complete 28 hours in the core curriculum sequence composed of the following public policy administration courses:

### Policy Analysis and Economics

P P ADM 6000 (p. 430)	Introduction To Policy Analysis	3
P P ADM 6080 (p. 430)	Microeconomics For Policy Analysis	3
P P ADM 6210 (p. 430)	Public Sector Microeconomics	3
P P ADM 6900 (p. 430)	Cases In Public Policy Administration	3

### Public Administration and Budgeting

P P ADM 6180 (p. 430)	Governmental Budgeting And Financial Control	3
P P ADM 6400 (p. 430)	Proseminar In Public Administration	3
P P ADM 6600 (p. 430)	Organizational Behavior And Administrative Processes	3

### Statistics, Research Methods, and Information Technology

P P ADM 6010 (p. 430)	Introduction To Policy Research	3
P P ADM 6750 (p. 430)	Introduction To Evaluation Research Methods	3
P P ADM 6850 (p. 430)	Information Technology and The Public and Nonprofit Sectors	1

Total Hours		28
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A thesis is not required to complete the program. However, writing is an important component of the degree, and students will complete written analyses as part of their coursework and/or internships.

## Electives

Twelve credit hours are taken as electives based on a student's interest. The electives are organized into emphasis areas, listed above in the MPPA program.

For each student in this program, the MPPA Director and the BSPPA Advisor in the Department of Political Science, will jointly identify and approve four MPPA courses (totaling 12 credits) that cover, at a more advanced level, undergraduate courses that would otherwise be taken for the BSPPA degree. These courses will substitute for (and should not duplicate) BSPPA courses, and will count toward completion of both BSPPA and MPPA requirements.

Degree requirements remain the same for the two degrees, but students admitted into this accelerated program will be able to earn 12 graduate credits prior to completing their undergraduate degrees. Upon completion of 120 credit hours (including all other undergraduate degree requirements) the BSPPA degree will be awarded.

## Admission Requirements

BSPPA majors must have completed between 60 and 108 credit hours before applying for admission into this dual degree program. It is

recommended that applicants apply after completing 90 credit hours. Applicants must have a minimum 3.0 overall GPA as well as a minimum 3.0 GPA in the major. Applications will be submitted to the Master of Public Policy Administration program and decisions will be made by the director in consultation with the BSPPA advisor in the Department of Political Science. Applicants must demonstrate proficiency in college algebra or equivalent. The application must be accompanied by three letters of recommendation, including one from a current, full-time faculty member, and by a two- to three-page statement explaining how the BSPPA/MPPA program fits in with the applicant's educational and professional goals.

## Graduate Certificate Program in Nonprofit Organization Management and Leadership (NPML)

Through the Public Policy Administration Program, the university offers the Graduate Certificate Program in Nonprofit Organization Management and Leadership for students who are current professional staff, board members, and other leaders of nonprofit and voluntary organizations, as well as those who plan to work in the field. UMSL's NPML certificate is the only program in the St. Louis region recognized by the Nonprofit Academic Centers Council (NACC). The certificate can be taken by itself or in conjunction with the Master of Public Policy Administration or a graduate degree in another field. Course credits earned in the certificate program can be applied to the MPPA, but a separate application is required.

The graduate certificate in nonprofit management and leadership requires the completion of 18 credit hours. Nine of these are the following core courses:

P P ADM/SOC WK 6300 (p. 430)	Leadership and Management in Nonprofit Organizations	3
P P ADM/SOC WK 6310 (p. 430)	American Philanthropy and Nonprofit Resources Development	3
P P ADM/SOC WK 6311 (p. 430)	Staff Management Issues in Nonprofit Organizations	1
P P ADM/SOC WK 6312 (p. 430)	Legal Issues in Managing Nonprofit Organizations	1
P P ADM/SOC WK 6313 (p. 430)	Financial Issues In Managing Nonprofit Organizations	1
Total Hours		9

Six hours of electives are to be taken from approved courses in accounting, business administration, economics, management, marketing, political science, psychology, public policy administration, and sociology. A student may choose among these courses or other courses approved by the program director.

Three hours of internship are also required, or graduate students should demonstrate the equivalent professional field experience. Any request for an exemption from the internship requirement must be approved by the nonprofit program director after a review of the student's professional or managerial field experience with appropriate documentation. Students who receive an exemption must take another 3 hours of electives from the selection in section B (below).

The internship will include learning activities in management and governance processes in nonprofit organizations, as well as a seminar in which students will critically reflect on their field experience with a faculty supervisor.

Requirements for admission to the graduate certificate program include an undergraduate degree and a GPA of 3.0 or better. Applicants must obtain two letters of recommendation. At least one of the letters must be from a current or former college-level instructor. The letters should be sent directly to the NPML office.

## Graduate Certificate Program in Local Government Management

The Graduate Certificate in Local Government Management is designed for current professional staff, elected or non-elected local government officials, and those who are interested in pursuing a career in the local government sector. The certificate can be taken by itself or in conjunction with the Master of Public Policy Administration or other graduate degree. A separate application for the certificate program may be required when students in a degree program wish to incorporate the certificate program.

The graduate certificate in local government management requires the completion of 18 credit hours. Twelve of these are the following core courses:

P P ADM 6180	Governmental Budgeting And Financial Control	3
(p. 430)		
P P ADM 6340	Seminar In City Administration	3
(p. 430)		
or P P ADM 6350	Issues In Urban Management	
(p. 430)		
P P ADM 6490	Human Resources In The Public Sector	3
(p. 430)		
POL SCI 6470 (p. 430)	Proseminar In Urban Politics	3
or POL SCI 6471	Seminar In Urban Politics	
(p. 430)		
Total Hours		12

Three hours of electives are to be taken from selected courses in, business administration, criminal justice, economics, political science, public policy administration, and sociology. A student may choose among these courses or other courses approved by the program director. Electives will be chosen from the following:

Select one of the following: <sup>1</sup>		3
CRIMIN 6442	Communities And Crime	
(p. 430)		
ECON 4160	Geospatial Analysis In The Social Sciences	
(p. 430)		
ECON 5700	Urban and Real Estate Economics	
(p. 430)		
POL SCI 6470	Proseminar In Urban Politics	
(p. 430)		
POL SCI 6471	Seminar In Urban Politics	
(p. 430)		
P P ADM/SOC WK 6300 (p. 430)	Leadership and Management in Nonprofit Organizations	

P P ADM 6340	Seminar In City Administration	(p. 430)
P P ADM 6350	Issues In Urban Management	(p. 430)
P P ADM 6400	Proseminar In Public Administration	(p. 430)
P P ADM 6510	Urban And Regional Planning And Public Policy	(p. 430)
P P ADM 6600	Organizational Behavior And Administrative Processes	(p. 430)
P P ADM 6680/	Negotiating Workplace Conflict	
MGMT 5612		(p. 430)

Total Hours 3

Three hours of internship or equivalent professional experience are also required but may be waived. Any request for an exemption from the internship requirement must be approved by the local government program director after a review of the student's professional or managerial field experience with appropriate documentation. Students who receive an exemption must take another three hours of electives from courses listed in section 2 (above). The internship will include learning activities in management and governance processes in local government jurisdictions, as well as a seminar in which students will critically reflect on their field experience with a faculty supervisor.

<sup>1</sup> Other courses may be added as advisors deem appropriate for content.

Requirements for admission to the graduate certificate program include an undergraduate degree and a GPA of 3.0 or better. Applicants must obtain two letters of recommendation. At least one of the letters must be from a current or former college-level instructor. Applicants must submit a two-page personal statement explaining how the certificate program fits in with the applicant's educational and professional goals. The letters and the personal statement should be sent directly to the Public Policy Administration Program.

## Graduate Certificate in Policy and Program Evaluation

(pending CBHE approval)

This program consists of a six-course sequence (18 credits): 4 required courses (12 credits) and 2 electives (6 credits). The Certificate may be taken by non-degree students or in conjunction with 1) the Master's in Public Policy Administration degree program; 2) the Master's in Social Work/Master's in Gerontology degree programs; or 3) the Master's in Economics.

Students with sufficient job experience in program/policy evaluation may submit a written request to waive the Applied Evaluation Project requirement. If granted, this requirement will be replaced with a three-credit elective.

Students pursuing a graduate degree along with the certificate should check with their graduate advisor regarding which courses will also count towards their degree.



A maximum of two courses at the 4000 level can count towards the Certificate.

At least 12 of the 18 credits must be taken in residence at UMSL.

<b>Required Courses:</b>		12
P P ADM 6000	Introduction To Policy Analysis	3
P P ADM 6010	Introduction To Policy Research	3
or SOC WK 5450	Social Work Research Methods And Analysis II	
or ECON 4100	Introduction To Econometrics	
or ECON 5100	Econometric Theory And Methods	
P P ADM 6750	Introduction To Evaluation Research Methods	3
or SOC WK 6400	Practice And Program Evaluation	
P P ADM 6950	Internship (which must include an evaluation project) <sup>1</sup>	3
or P P ADM 6751	Applied Evaluation Project	
or SOC WK 6800	Graduate Field Practicum II	
or SOC WK 6850	Graduate Field Practicum III	
<b>Electives</b>		6
ECON 4170	Fundamentals Of Cost-Benefit Analysis	
ECON 4550	Natural Resource Economics	
ECON 5400	Labor Economics: Theory And Public Policy	
ECON 5640	Transportation Economics	
ECON 5760	Health Economics	
P P ADM 6300	Leadership and Management in Nonprofit Organizations	
P P ADM 6400	Proseminar In Public Administration	
P P ADM 6430	Health Care Policy	
or GERON 644	Health Care Policy	
or POL SCI 644	Health Care Policy	
or SOC WK 64	Health Care Policy	
P P ADM 6444	Seminar in Public Policy and Aging	
or GERON 6444	Seminar In Public Policy And Aging	
or POL SCI 6444	Seminar In Public Policy And Aging	
POL SCI 4040	Survey Research Practicum in Political Science	
POL SCI 6402	Intermediate Techniques In Policy Research	
POL SCI 6403	Advanced Techniques In Policy Research	
POL SCI 6404	Multi-Method Research Design	
POL SCI 6451	Seminar In Comparative Politics <sup>2</sup>	
POL SCI 6452/	Public Policy Of Conservation And Sustainable	
BIOL 6250	Development	
SOC 4040	Survey Research Practicum for Sociology	
SOC 4307	Community-Based Research in Sociology	
SOC WK 6250	Social And Economic Development Policy	

<sup>1</sup> SOC WK 6800 or SOC WK 6850 must include an evaluation project.

<sup>2</sup> This course may count for credit toward the certificate when it is offered as "Gender, Ethnicity, and Welfare States."

Requirements for admission to the graduate certificate program include an undergraduate degree and a GPA of 3.0 or better. Applicants must obtain two letters of recommendation. Applicants must submit a personal statement explaining how the certificate program fits in with the applicant's educational and professional goals. The letters and the personal statement should be sent directly to the Public Policy Administration Program.

## Courses

### **P P ADM 6000 Introduction To Policy Analysis: 3 semester hours**

Same as POL SCI 6410. Systematic development of a critical/analytic base for dealing with public policy.

### **P P ADM 6010 Introduction To Policy Research: 3 semester hours**

Same as POL SCI 6401. Procedures for testing explanations, including research design, principles of measurement, probability sampling, methods of data collection, and techniques for analyzing data.

### **P P ADM 6080 Microeconomics For Policy Analysis: 3 semester hours**

Same as ECON 5010. Prerequisite: Graduate student standing. This course introduces microeconomic analysis of consumers, firms, and government, with an emphasis on policy applications. It assumes no prior training in economics and is appropriate for graduate students in public policy administration, nonprofit management, political science, gerontology, criminology and criminal justice, and other related fields.

### **P P ADM 6150 Directed Readings And Research In Public Policy: 1-10 semester hours**

Same as POL SCI 6415. Prerequisite: Consent of instructor. Independent study through readings, reports, research projects, and conferences. May be repeated for credit, provided the subject matter is different.

### **P P ADM 6180 Governmental Budgeting And Financial Control: 3 semester hours**

Same as BUS AD 5450. Prerequisite: ACCTNG 5400 a study of municipal and federal financial control and budgeting procedures with emphasis on public policy. The impact of financial control on top management decisions and the effect of budget strategies on the allocations of public funds.

### **P P ADM 6210 Public Sector Microeconomics: 3 semester hours**

Same as ECON 5500. Prerequisites: ECON 3001 or BUS AD 5001 or P P ADM 6080. Application of tools of intermediate microeconomics to address public sector issues. Special emphasis is placed on critically analyzing current public policy debates using the models developed. Topics include: cases in which competitive market fails to allocate resources efficiently (e.g. externalities and public goods), importance of property rights, incentive effects of the tax and transfer system, and the fundamentals of cost/benefit analysis.

### **P P ADM 6300 Leadership and Management in Nonprofit Organizations: 3 semester hours**

Same as POL SCI 6300 and SOC WK 6300. Prerequisites: Graduate standing required. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

### **P P ADM 6310 American Philanthropy and Nonprofit Resources Development: 3 semester hours**

Same as SOC WK 6310. Prerequisites: Graduate Standing Required. This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the nonprofit, voluntary sector. It further examines the contemporary forces which impact philanthropy and charitable giving, both by institutions and individuals. The course examines the effective planning and management of development programs (e.g., annual giving), fund raising vehicles (e.g., mail solicitations) and the fund raising process, form planning through donor relations.

***P P ADM 6311 Staff Management Issues in Nonprofit Organizations: 1 semester hour***

Same as SOC WK 6311. Prerequisites: Graduate standing required. This course addresses issues involved in managing staff in nonprofit organizations. The course will cover the following topics: fundamentals of staff supervision; balancing supervisory processes with counseling and coaching; selecting, hiring, evaluating, and terminating staff' legal issues that affect these processes.

***P P ADM 6312 Legal Issues in Managing Nonprofit Organizations: 1 semester hour***

Same as SOC WK 6312. Prerequisites: Graduate Standing required. This course addresses legal issues involved in managing and governing nonprofit organizations. The course will cover the following topics: The Board as steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

***P P ADM 6313 Financial Issues In Managing Nonprofit Organizations: 1 semester hour***

Same as SOC WK 6313. Prerequisite: Graduate standing required. This course addresses financial issues involved in governing and managing nonprofit organizations. The course will cover the following topics: Cash flow analysis; budgeting; fund accounting; cost accounting (determining costs for programs and services); understanding and using standard financial statements, including balance sheets, cash flow statements, statements of activity, and operating and capital budgets.

***P P ADM 6340 Seminar In City Administration: 3 semester hours***

This course provides an overview of the working environment of a city administrator and is jointly sponsored by the local city managers association. Professional city personnel make presentations to the students on six major topics: political structure, organizational structure, service delivery, finance, personnel policies and practices, and leadership. The course provides direct observation of city council meetings, visits to various city facilities, exposure to different philosophies and styles of city management, and provides students a chance to assemble facts, evaluate options, and present policy recommendations for real problems that local administrators face.

***P P ADM 6350 Issues In Urban Management: 3 semester hours***

Designed to evaluate management issues that confront managers in local government from a political perspective. The format will include an intense review and discussion of original case studies from actual local government situations. The specific focus of this course will vary. Course may be repeated.

***P P ADM 6400 Proseminar In Public Administration: 3 semester hours***

Same as POL SCI 6440. Examination of major approaches to analyzing public policies and their administration. Emphasis is on the effects of administrative organization and procedures on policy decisions and their impact. Specific topics may include administrative accountability, inter-governmental relations, public private interaction, implementation processes, bureaucratic expertise, the legal environment of public administration, and public service and merit issue.

***P P ADM 6430 Health Care Policy: 3 semester hours***

Same as GERON 6443, POL SCI 6443, and SOC WK 6443. Prerequisites: Graduate standing or consent of instructor. Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

***P P ADM 6444 Seminar in Public Policy and Aging: 3 semester hours***

Same as GERON 6444 and POL SCI 6444. Prerequisites: Consent of instructor. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

***P P ADM 6460 Selected Topics In Health Care Policy: 3 semester hours***

Same as POL SCI 6446. Prerequisite: consent of instructor. The study of specialized issues and methods relating to health care policy. May be repeated for credit, provided the subject matter is different.

***P P ADM 6470 Proseminar In Urban Politics: 3 semester hours***

Same As: POL SCI 6470. Examination of the relationship between the social, economic and political systems of urban areas. Urban political structure, patterns of influence, political participation and communication and political change. Special attention to problems of access to and control of urban political systems.

***P P ADM 6471 Seminar In Urban Politics: 3 semester hours***

Same As: POL SCI 6471. Research problems and design in urban and regional politics. May be repeated for credit when the subject matter is different.

***P P ADM 6490 Human Resources In The Public Sector: 3 semester hours***

Same as POL SCI 6449 and SOC WK 6449. Prerequisites: P P ADM 6600 or consent of instructor. Presents an overview of personnel and labor relations in the public sector. Particular emphasis placed on issues which are unique to the public sector such as the merit system, the questions of representative bureaucracy and the constraints of personnel in the nonprofit sector. The topics include: personnel reforms in the federal sector, equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation and labor relations including grievance arbitration and collective bargaining.

***P P ADM 6500 Selected Topics in Public Policy Administration: 3 semester hours***

Prerequisites: Graduate Standing. Permission of instructor may be required. A seminar of selected issues and methods relating to public policy administration. May be repeated for credit, provided the subject matter is different.

***P P ADM 6501 Selected Topics in Nonprofit Management and Leadership: 3 semester hours***

Prerequisites: Graduate standing. Permission of instructor may be required. A seminar of selected issues and methods relating to nonprofit management and leadership. May be repeated for credit, provided the subject matter is different.

***P P ADM 6510 Urban And Regional Planning And Public Policy: 3 semester hours***

Prerequisites: Graduate standing or consent of instructor. This course focuses on the interdependent processes of urbanization and public policy. Students will acquire an understanding of urban planning and public policy processes in North America.

***P P ADM 6550 Strategic And Program Planning For Non Profit Organizations: 3 semester hours***

Same as POL SCI 6490 and SOC WK 6491. Prerequisite: Graduate Standing or Consent of Instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

***P P ADM 6600 Organizational Behavior And Administrative Processes: 3 semester hours***

Same as MGMT 5600. The theoretical and research contribution of the behavioral sciences to management and administration are examined and applied to selected organizational situations. Areas to be considered from the standpoint of both individual and organizational performance are communication, motivation, conflict, decision making, goal setting, leadership, organizational design, climate, development, and control. Utilizing a systems perspective, the course attempts to develop in each student an ability to analyze and solve organizational problems.

***P P ADM 6680 Negotiating Workplace Conflict: 3 semester hours***

Same as MGMT 5612. Prerequisites: P P ADM 6600 / MGMT 5600 and Graduate Standing. Examines conflict and cooperation between individuals, groups and organizations over the control of work. A central theme is how this conflict is expressed, controlled, and resolved. Students will participate in exercises to learn the basics of two-party negotiations.

***P P ADM 6750 Introduction To Evaluation Research Methods: 3 semester hours***

Prerequisites: At least one course in research design and statistics at the graduate level. A comparative study of research strategies with regard to data sources, data collection, and modes of analysis that are appropriate for program evaluation research. Attention is given to observational, survey, and quasi-experimental methodologies.

***P P ADM 6751 Applied Evaluation Project: 3 semester hours***

Prerequisites: P P ADM 6000, P P ADM 6010 or equivalents, P P ADM 6750 or equivalents. Independent study involving an evaluation project with an appropriate public or private or nonprofit agency.

***P P ADM 6800 Management Information Systems: 3 semester hours***

Same as INFSYS 5800 This course provides an overview of the established and contemporary issues related to information systems within organizations. Topics include the practices and tools associated with topics such as the management of IS-based investment projects, the design and implementation of IS, the alignment of IS strategy with organizational strategy, information security and privacy, and gaining a competitive advantage through IS.

***P P ADM 6850 Information Technology and The Public and Nonprofit Sectors: 1 semester hour***

Prerequisite: Graduate Standing. This course addresses information technology in the public sector from a managerial perspective. Course goals include an increase in student's knowledge and understanding of basic hardware, software, data, and information management issues from a managerial perspective. These topics include, but are not limited to: web portal design, geographic information systems, database management, e-government, strategic design, and the use of information technology to address public policy questions.

***P P ADM 6900 Cases In Public Policy Administration: 3 semester hours***

Prerequisites: 24 hours of public policy administration courses, at least 15 of which are in core courses. This capstone course intensively analyzes public policy administration cases drawn from a variety of issues and settings.

***P P ADM 6950 Internship: 3 semester hours***

Independent study involving work with an appropriate public or private or nonprofit agency.

# Pierre Laclède Honors College

The Pierre Laclède Honors College mission is to enrich the educational experience of a select group of highly motivated and intelligent undergraduates. With this in mind, it enrolls students who are ready to accept academic challenges and become creatively involved in the learning process.

The college has a unique structure and identity. Unlike the university's other colleges, it has no academic departments and it grants no degrees. Instead, it brings together a cross section of students and teachers in a special curriculum, designed to meet a portion of the students' general education and various other requirements. Programs are available to four-year and transfer students, and successful completion of the program requirements results in earning the honors certificate upon graduation.

The four year program is open to entering freshmen and extends over a student's entire undergraduate career.

The two year program is open to select third year students who are either continuing at or have transferred to the university, and a two-plus program is available for transferring sophomores.

Honors College courses are generally taught seminar style, with a stress on reading, small group discussion, and writing.

Honors College students are highly qualified and motivated individuals from a broad range of public and private secondary schools and colleges. They enter the college with diverse backgrounds and interests and remain part of it while simultaneously enrolling in classes and pursuing bachelor's degrees in other academic divisions of the university.

Most honors students major in traditional liberal arts disciplines spanning the humanities, social sciences, mathematics, and natural sciences, but well over a third use their undergraduate education to prepare for careers in business, education, nursing, or engineering. Most Honors College students plan to go on to graduate study or professional schools, although a significant number successfully seek employment immediately after graduation. Honors faculty and staff provide advice and guidance in both course choice and career plans.

## The Honors College Writing Program

Both two- and four-year programs include participation in the Honors College writing program, writing through the curriculum, which involves writing in most honors seminars, as well as formal courses in composition (including HONORS 1100 and HONORS 3100 or HONORS 3160). In the final year, this culminates in the compilation of a personal Honors College writing portfolio (HONORS 4100).

## Independent Study Requirement

All Honors College students, whether in the four-year or the two-year program, must fulfill a 6-credit-hour independent study requirement. This can be met in several ways, including supervised research, guided reading, internships, and in many cases capstone courses in the major.

## Faculty Overview

Honors College instructors are drawn from university faculty in all academic divisions but mainly from the "traditional disciplines" of the Arts, Humanities, Social Sciences, and Sciences. These teachers share a

desire to work closely with intellectually curious, high-achieving students. Faculty design courses directed toward such an audience and based on small discussion seminars. Thus the honors faculty grows each year as new faculty join the honors project. Their talents add to the Honors College's rich instructional pool of more than 100 regular and full-time faculty, many of whose teaching and scholarship have been singled out for special awards.

In addition, the Honors College has seven full-time academic faculty members whose responsibilities (besides instruction) include admissions, student advising, and curricular design.

## Honors College Certificate

### Four Year Program (40 credit hours total):

Approximately one-third of the 120 hours honors students earn toward graduation are taken in the Honors College. Most of these credits are associated with a sequence of honors courses designed specifically for the college, the majority of which are taken during the first two years. During this period, these students fulfill virtually all of the university's general education requirements (p. 438), usually in innovative ways. In their junior and senior years, honors students also may earn honors credit for work done within their major fields, work which includes the possibility of internships, independent study projects, and advanced undergraduate research.

### First Year

Students take HONORS 1100 (p. 438), HONORS 1200 (p. 438), and HONORS 1201 (p. 438), and one course each from the Western Traditions and Non-Western Traditions seminar series. Students may take a seminar from the American Traditions series as an elective or in place of the Western Traditions seminar.

HONORS 1110 (p. 438)	Western Traditions: Humanities	3
HONORS 1200 (p. 438)	Freshman Symposium: Cultural Traditions I	3
HONORS 1201 (p. 438)	Freshman Symposium: Cultural Traditions II	3
HONORS 1130 (p. 438)	Western Traditions: Social And Behavioral Sciences	3
HONORS 1230 (p. 438)	American Traditions: Social And Behavioral Sciences <sup>1</sup>	3
HONORS 1310 (p. 438)	Non-Western Traditions Series Humanities	3
HONORS 1330 (p. 438)	Non-Western Traditions Series-Social Sciences	3

<sup>1</sup> Elective as an alternate to Western Traditions.

### Second Year

Students take two of the following Honors classes:

HONORS 2010 (p. 438)	Inquiries In The Humanities	3
HONORS 2020 (p. 438)	Inquiries In The Fine And Performing Arts	3
HONORS 2030 (p. 438)	Inquiries In The Social And Behavioral Sciences	3



HONORS 2050 (p. 438)	Inquiries In The Natural Sciences	1-3
HONORS 2060 (p. 438)	Inquiries In Business	3
HONORS 2070 (p. 438)	Inquiries In Education	3
HONORS 2071 (p. 438)	Inquiries in Education	4
HONORS 2080 (p. 438)	Inquiries In Nursing	3

During the first two years, honors students will take additional course work in other areas, such as mathematics, natural science, foreign language, and major prerequisite classes to satisfy various university, Honors College, and specific degree requirements.

### Third and Fourth Years

Honors students in the four-year program take at least four seminars (12 credit hours) from the Advanced Seminar (3000 level series) and/or Research Seminar (HONORS 3530 (p. 438) or HONORS 3535 (p. 438)). They may take more where this is compatible with their major and/or minor requirements. Honors students in the four year program who take HONORS 3100 (p. 438) ("Writing the City") or HONORS 3160 (p. 438) ("Writing in the Sciences") may present it for their honors certificate as one of their 3000-level seminars. They may also, depending on their major, present it to meet their graduation requirement for Junior-level composition.

HONORS 3010 (p. 438)	Advanced Honors Seminar In The Humanities	3
HONORS 3020 (p. 438)	Advanced Honors Seminar In The Fine And Performing Arts	3
HONORS 3030 (p. 438)	Advanced Honors Seminar In The Social And Behavioral Sciences	3
HONORS 3100 (p. 438)	Honors Advanced Composition: Writing The City	3
HONORS 3160 (p. 438)	Honors Writing In The Sciences	3
HONORS 3530 (p. 438)	Research Seminar In The Social And Behavioral Sciences	3
HONORS 3535 (p. 438)	Research Seminar In The Social And Behavioral Sciences	4

In addition, honors students do 6 credit hours in independent study projects, normally in or closely related to their major field. These independent study projects normally carry credit in the major, but can be done as Honors College independent study or research projects (HONORS 4900 (p. 438), HONORS 4910 (p. 438), HONORS 4915 (p. 438)). During the final year, students also take HONORS 4100 (p. 438), a one-hour capstone for the Honors College writing program; HONORS 4100 (p. 438) may be taken for two hours.

### Two year Program (22 credit hours total):

Students in this program will take a combination of Honors College seminars and honors independent study credit (usually for work done in their major fields). The 22 credit hours must include 6 credits of independent study, as for the four-year program.

### Third Year

During the first year of the two-year program, students take three honors seminars, including HONORS 3100 (p. 438), Writing the City or HONORS 3160 (p. 438), Writing in the Sciences; one course from the Inquiries series (2000 level); one course from either the Advanced Seminar (3000 level) or Research Seminar (HONORS 3530 (p. 438) or HONORS 3535 (p. 438)). In addition, 3 credit hours of independent study may be taken during this year, normally in or closely related to their major.

### Fourth Year

The final year of the two-year program involves three courses chosen from the 3000 and 4000 level options, including HONORS 4100 (p. 438), the honors writing portfolio, and at least one course chosen from the 3000 level. In addition, students will complete their independent study requirements with 3 or 6 hours of project, internship, or research work.

### Honors and Nursing; Honors and Engineering

Because of the extensive professional requirements for both Nursing and Engineering, the Honors College has, with the support of the relevant faculties, created special programs for Nursing and Engineering majors who wish to pursue the Honors College certificate. Both programs feature reduced Honors College credit hour requirements but retain the core of the Honors program and give students ample opportunities to experience interdisciplinary inquiry, seminar-based learning, and take part in the Honors College Writing Program.

### Honors and the Bachelor of Liberal Studies (BLS)

Pierre Laclède Honors College students who wish to present the honors Certificate as a minor for the BLS must complete the Honors Capstone (HONORS 4100, one or two credit hours) and also direct three to six hours of their Honors independent study requirement as part of their BLS program. Students should consult the BLS faculty advisor in the Honors College about this requirement, as well as an Arts and Sciences advisor.

### Pierre Laclède Honors College Student Learning Outcomes.

Both four- and two-year programs share the same learning agendas:

- Through coursework comparing and contrasting diverse cultural viewpoints, academic disciplinary approaches and information, Honors students will demonstrate the ability to synthesize knowledge from various perspectives.
- Honors students will exhibit the ability to communicate effectively in speech and writing:
  - by speaking in groups to present, reflect on and evaluate information and perspectives.
  - by completing the written assignments required in all Honors courses that focus on various perspectives, audiences and disciplinary approaches(demonstrating effective writing that employs correct diction, syntax, usage, grammar and mechanics.
- Honors students will demonstrate skills in higher-order thinking, valuing and managing information:
  - by exhibiting the ability to distinguish among opinions, facts and inferences; by identifying underlying or implicit ins assumptions;

by making informed judgments; and by solving problems through applying evaluative standards.

- by locating, accessing, synthesizing and annotating information from print, electronic, and other sources; by distinguishing between scholarly and non-scholarly sources in preparation for higher-order thinking.
- by analyzing and synthesizing information from a variety of sources, applying the results to resolving complex situations and problems, and defending conclusions using relevant evidence and reasoned argument.
- by utilizing cultural, behavioral, and historical knowledge to clarify and articulate a personal value system while recognizing the ramifications of personal value decisions on the self and others.
- by identifying conflicts within and between multiple perspectives and value systems; by recognizing and analyzing ethical issues in a variety of contexts; and by employing standards of logic to formulate a reasonable position among multiple perspectives.
- Honors students will select and participate in Honors courses in various disciplines and will demonstrate essential skills and approaches relevant to those disciplines: Students participating in Honors courses in disciplines such as the social sciences, life and physical sciences that rely upon the understanding of fundamental mathematical concepts and their applications will display a level of quantitative literacy that would enable them to understand and analyze quantitative data, draw conclusions, and solve problems.
- Students participating in Honors courses in the social and behavioral sciences will exhibit understanding of themselves and the world around them through the study of the content and methodologies used by historians and social and behavioral scientists to discover, describe, explain, and predict human behavior and social systems; they will demonstrate understanding of the diversities and complexities of the cultural and social world, past and present, and come to an informed sense of self and others.
- Students participating in Honors courses in the humanities and fine arts will exhibit understanding and critical analysis of the ways in which people have addressed their condition through literature and art; they will demonstrate their understanding of these cultural works and their historical circumstances; they will formulate aesthetic judgments of these works.
- Students participating in Honors courses focusing on life and physical sciences will demonstrate knowledge of scientific principles, research procedures and empirical methods of scientific enquiry; they will display their understanding of how scientific discoveries affect and are affected by theoretical views of the world and human history.
- Honors students will complete specific Honors requirements designed to develop their awareness of career and advanced study opportunities:
  - by participating in internships, independent study and undergraduate research to develop and demonstrate advanced knowledge in a discipline, professional skills, and greater understanding of career and educational goals.
  - by creating an Honors Writing Portfolio that demonstrates the ability to assess their writing skills and development; by devising and revising documents for employment searches or graduate school applications to enhance their ability to formulate and pursue specific career goals.

## Other Academic Features and Requirements

### Satisfactory/Unsatisfactory

The satisfactory/unsatisfactory option does not apply to any course work undertaken for Honors College credit.

### Admission and Retention

To be considered for admission to either the two-year or four-year honors program, a candidate must file a special Honors College application, as well as a general university application. These application forms and additional information concerning scholarship awards, general eligibility guidelines, and the admissions process are available from the Honors College admissions office at (314) 516-7769 or from the University Admissions. See also the Honors College website.

### Scholarships

Every new freshman or transfer student admitted in good standing to the Honors College receives academic scholarship support. Students continue to receive these awards as long as they meet the criteria associated with their particular scholarship.

**Good academic standing** To remain in good standing, a student must maintain a cumulative GPA, in all his or her UMSL courses, of at least 3.2, and must continue to meet the requirements of the honors program for which he or she was initially admitted. Unless other arrangements have been made, Honors College students are also expected to be full time, that is, to register for and satisfactorily complete at least 12 credit hours per semester. Students wishing to enter the Honors College as part-time students or to change to part-time status must make prior arrangements with the Honors College dean or associate dean.

### UMSL: An Urban Land Grant Institution

Given its location in St. Louis, and because it is part of an urban land grant university, Pierre Laclède Honors College seeks to encourage awareness of the manifold benefits of pursuing an undergraduate education in a dynamic and varied urban community. This is accomplished partly through the Honors Curriculum through facilitating cultural and other outings in the city, and by encouraging students to include in their academic program courses, research projects, and/or internships which exploit the university's manifold connections with city people and its partnerships with leading city institutions such as the Missouri Botanical Gardens, the Missouri Historical Society, and the Mercantile Library of St. Louis. Many honors students fulfill all or part of their independent study requirements working through such partnerships.

**International Study and Other Exchange Programs** Honors students are encouraged to consider a semester's or a year's study at another institution. This can be done through the University's Center for International Studies, which administers exchanges with more than 70 universities in Europe, Africa, Asia, Australia, and South and Central America as well as the Missouri-in-London program. Students not wishing to go abroad may, through the National Student Exchange, attend any one of more than 100 universities in the United States, Puerto Rico, Guam, and Canada. Students should contact International Studies and Programs if they are interested in the National Student Exchange Program.

Please note that students in the Honors and International Business program are normally required to spend their exchange study through the Center for International Studies.

## Courses

### **HONORS 1100 Freshman Composition: 3 semester hours**

Prerequisite: Consent Of The Dean Of The Honors College. Theory And Practice Of Writing Expository Prose. Emphasis On Individual Tutorial. Assignment Will Be Linked With Topics Discussed In Honors 101.

### **HONORS 1110 Western Traditions: Humanities: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College All Western Traditions seminars will be based on the reading and discussion of works of exceptional importance in the development of western culture and civilization. The works to be discussed in each seminar will follow a central theme (defined by its particular relevance to the traditional academic disciplinary areas of the humanities, arts, social sciences, mathematics, or sciences) but will relate that theme to wider developments in Western Traditions and to the American concept of a liberal education.

### **HONORS 1130 Western Traditions: Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College All Western Traditions seminars will be based on the reading and discussion of works of exceptional importance in the development of western culture and civilization. The works to be discussed in each seminar will follow a central theme (defined by its particular relevance to the traditional academic disciplinary areas of the humanities, arts, social sciences, mathematics, or sciences) but will relate that theme to wider developments in Western Traditions and to the American concept of a liberal education.

### **HONORS 1200 Freshman Symposium: Cultural Traditions I: 3 semester hours**

Course surveys Western and Non-Western cultural Traditions from their beginnings until 1800. It will introduce the intellectual traditions of a wide variety of cultures through major works of literature, religion and philosophy.

### **HONORS 1201 Freshman Symposium: Cultural Traditions II: 3 semester hours**

Prerequisite: Consent of the Dean of the H.C. Course surveys Western and Non-Western Cultural Traditions from the 1800's to current times. It will introduce intellectual traditions of a wide variety of cultures through major works of literature, religion and philosophy.

### **HONORS 1230 American Traditions: Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Honors seminars in the American Traditions series involve reading and discussion of texts of major importance in the development of the culture, politics, ideologies, and values which are or have been characteristic of the United States of America. Every American Traditions seminar will cover a broad range of time, and each may include contemporary issues. HONORS 1230 (Social Sciences) satisfies the American history and government requirement, and any course in the American Traditions sequence may be taken to satisfy one of the 'core' requirements for the American Studies Minor.

### **HONORS 1310 Non-Western Traditions Series Humanities: 3 semester hours**

Prerequisite: Consent of the Dean of the H.C. Seminars focus on different topics in the humanities but address themes and problems in non-western cultures that are related to the freshmen core classes (HONORS 1200 and HONORS 1201). These topics will be examined in depth through reading discussion, and students will produce formal papers and participate in individual or small group presentations.

### **HONORS 1330 Non-Western Traditions Series-Social Sciences: 3 semester hours**

Prerequisite: Consent of the Dean of the Honors College Seminars focus on different topics in the social sciences but address themes and problems in non-western cultures that are related to the freshmen core classes (HONORS 1200 and HONORS 1201). These topics will be examined in depth through reading discussion, and students will produce formal papers and participate in individual or small group presentations.

### **HONORS 1410 Freshman Seminar In Humanities: 3 semester hours**

Seminars focus on different topics in the humanities but address themes and problems in the western cultural traditions that are related to the freshmen core classes (HONORS 1200 and HONORS 1201). These topics will be examined in depth through reading and discussion, and students will produce formal papers and participate in individual or small group presentations.

### **HONORS 2010 Inquiries In The Humanities: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one of more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

### **HONORS 2020 Inquiries In The Fine And Performing Arts: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College. Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

### **HONORS 2030 Inquiries In The Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2050 Inquiries In The Natural Sciences: 1-3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2051 Inquiries in the Sciences: Laboratory or Field Work: 1 semester hour**

Prerequisites: Permission of Honors Dean. This course develops students' understanding of how the experimental procedures of the life and physical sciences are used to collect data and to develop and test scientific hypotheses. HONORS 2051 is taken as a required companion course to specific sections of HONORS 2050, (Inquiries in the Sciences), when laboratory or field work experience is essential to students' understanding of and competence in the scientific subject matter of the companion section of HONORS 2050.

**HONORS 2060 Inquiries In Business: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2070 Inquiries In Education: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2071 Inquiries in Education: 4 semester hours**

Prerequisite: Consent of the dean of the Honors College. Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate, laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. HONORS 2071 meets College of Education requirements for TCH ED 2209.

**HONORS 2080 Inquiries In Nursing: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2310 Cultural Diversity In The Humanities: 3 semester hours**

This seminar focuses upon cultural diversity themes, texts, and perspectives within the humanities.

**HONORS 2330 Cultural Diversity In The Social Sciences: 3 semester hours**

This seminar focuses upon cultural diversity themes, texts, and perspectives within the social sciences.

**HONORS 3010 Advanced Honors Seminar In The Humanities: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College. Open only to Honors College students and not acceptable for graduate credit. Usually restricted to Juniors and Seniors, these advanced seminars focus on in-depth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multidisciplinary and will underscore the value of making connections between diverse areas of study. These courses will not usually require specific prerequisites, but may (with the consent of the appropriate department or division) be taken as major or minor courses. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 3020 Advanced Honors Seminar In The Fine And Performing Arts: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Open only to Honors College students and not acceptable for graduate credit. Usually restricted to Juniors and Seniors, these advanced seminars focus on in-depth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multidisciplinary and will underscore the value of making connections between diverse areas of study. These courses will not usually require specific prerequisites, but may (with the consent of the appropriate department or division) be taken as major or minor courses. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 3030 Advanced Honors Seminar In The Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Open only to Honors College students and not acceptable for graduate credit. Usually restricted to Juniors and Seniors, these advanced seminars focus on in-depth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multidisciplinary and will underscore the value of making connections between diverse areas of study. These courses will not usually require specific prerequisites, but may (with the consent of the appropriate department or division) be taken as major or minor courses. The course number may be repeated for credit whenever the topic is substantially different.



**HONORS 3075 Reflective Research in Education: 2-3 semester hours**

Prerequisites: Consent of Honors College Dean. Students will explore issues and trends in educational research from the perspectives offered by their own classroom experiences (as students and/or as teaching interns). Through individual research projects, discussions, and periodic status reviews, students will gain in understanding how major educational research issues arise from and interact with curriculum design and classroom pedagogy. Students who have already taken HONORS 2071 (Foundations of Teaching in American Schools) will take the course for two (2) credits.

**HONORS 3100 Honors Advanced Composition: Writing The City: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Enhances critical thinking, research, discussion and writing skills by focusing on the city of St. Louis and on the specific fields of study of those enrolled in the course. Issues such as depth and development of content, voice, style, tone, correct expression, and research techniques are among the topics emphasized. Students maintain a Commonplace Book of journals, drafts, and creative writings; they also submit a minimum of four formal papers. This course is required for transfer students (two-year Honors Program) and an elective for students on the four-year program. For students on either program, HONORS 3100 meets the Advanced Composition requirement of the University.

**HONORS 3160 Honors Writing In The Sciences: 3 semester hours**

Prerequisites: Junior-level standing This honors course, designed to meet the needs for students in the science disciplines, will satisfy the campus junior-level writing requirement. The course will stress writing observation reports, academic journals, laboratory reports and a major project suited to the specific area of study of each student enrolled in the class. Instruction will include correct documentation of science sources, synthesis techniques of research information, technology-based research skills and effective laboratory reporting methods. Four formal papers, including one large project, and several informal papers will be required for this challenging course.

**HONORS 4100 Independent Portfolio Writing: 1-2 semester hours**

Prerequisites: Senior status. Students in this course will meet with their instructor on a regular basis to discuss and revise their writing portfolio and write their master resume, career or academic resume, personal statements for graduate school, or other projects for careers or their futures. The course is required to be at least one hour and may be taken for two hours to allow for more personal time and assistance from the instructor.

**HONORS 4900 Independent Study In Honors: 1-6 semester hours**

Prerequisites: Consent of the Dean of the Honors College Open only to Honors College students and not acceptable for graduate credit. Most Honors students will fulfill their Honors independent study requirements in another department or division of the university. Where this is not possible, and where academic credit seems an appropriate reward for the independent study in question, the project may be undertaken as HONORS 4900, normally as a 3-credit course. This will involve substantial reading, research, and/or field work, and will be supervised by a permanent member of the Honors College academic staff. Completed proposal forms for this course must be submitted to the Honors College not later than the deadline for university registration.

**HONORS 4910 Independent Study: Internships: 1-6 semester hours****HONORS 4915 Honors Independent Off-Campus Internship: 1-6 semester hours**

Prerequisites: Approval from Honors Dean This course is designed for 1 to 6 hours for an outside internship, approved by the Honors College. The student will not be on campus for the hours of this internship and most work for the internship will be submitted online to the Honors Internship Faculty Member.

# School of Social Work

## General Information

The School of Social Work at the University of Missouri-St. Louis includes the Social Work and Gerontology programs. The School's faculty are distinguished scholars committed to excellence in teaching and research in a wide range of specialties. These include child welfare, gerontology, community organization, addictions, social service policy, and international social work. The School's programs work closely with agencies in the St. Louis region, and students are able to select internships from more than 400 area social service agencies.

Social work prepares students for professional practice in schools, juvenile and adult courts, hospitals, community development agencies, counseling agencies, agencies serving older adults, state social service agencies, and other organizations and agencies serving individuals, families, groups and communities.

Gerontology is an interdisciplinary program with faculty from anthropology, biology, economics, nursing, optometry, psychology, and social work. Students may also take courses in Business Administration or Nonprofit Management.

## Degrees offered

### Bachelor of Social Work (BSW)

### Masters in Social Work (MSW)

With concentrations in:

- Family Practice
- Social Work Leadership and Management
- Gerontology

### Master of Science in Gerontology (MSG)

### Undergraduate Certificate in Gerontological Studies

### Graduate Certificates in Gerontology and Long-Term Care Administration

Courses may be completed through day or evening coursework (BSW) or through evening courses (MSW, MSG). Credit courses are also offered off-campus through University Outreach.

## Gerontology

### Career Outlook

With our growing aging population, the career outlook for gerontology is strong and will continue to be for decades to come. Professionals with specialized training in gerontology find meaningful work in a variety of settings, including management and marketing positions in the senior housing and long-term care industries, program coordination and direct service positions in nonprofit, government and for-profit senior service organizations, in the growing field of Geriatric Care Management, as counselors and support group leaders, and as members of multidisciplinary teams in hospice organizations and other healthcare organizations.

## Faculty Overview

Gerontology is a multi-disciplinary field of study and professional practice. Our regular and adjunct faculty members have backgrounds in psychology, social work, optometry, health economics, anthropology, nursing, geriatric care management, business, retirement planning, and other relevant fields and professional disciplines.

## Undergraduate Certificate in Gerontological Studies

A certificate in gerontological studies, a multidisciplinary course of study, is available at the University of Missouri-St. Louis. This program provides an opportunity for students to obtain a focused specialty in gerontology in addition to their majors. It is appropriate for students in any of the colleges of the University.

## Certificate Requirements

A student may earn the certificate in gerontological studies by completing a total of 15 hours. The student must meet with the Director of Gerontology to develop a balanced plan of study. No more than 3 credit hours from Research/ Practicum Experience courses will be allowed. The student must have the approval of the director of the gerontology program before enrolling in the course. Courses taken to fulfill the requirements may not be taken on a satisfactory/unsatisfactory basis. New courses continually are added, so it is advisable to check with the director each term. Many courses are crosslisted and also have a gerontology designation.

### Humanities

GERON/PHIL 2256 (p. 444)	Bioethics	3
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### Social Sciences

GERON/INTDSC 1220 (p. 444)	Special Topics In Gerontology	3
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GERON/PSYCH 2272 (p. 444)	Developmental Psychology: Adulthood And Aging	3
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GERON/PSYCH 2280 (p. 444)	Psychology Of Death And Dying	3
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GERON/ ANTHRO 3215 (p. 444)	Aging Across Cultures	3
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GERON/SOC 4361 (p. 444)	Social Gerontology	3
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GERON/PSYCH/ SOC WK 4376 (p. 444)	Mental Health And Aging	3
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GERON 4490 (p. 444)	Directed Readings	1-3
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GERON/SOC WK 4680 (p. 444)	Introduction to Gerontological Practice	3
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GERON 4700 (p. 444)	Successful Aging: Individual & Societal Perspectives	3
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## Master of Science in Gerontology

The Master of Science degree in gerontology (MSG) is a multidisciplinary program of study and hands-on/service learning designed to prepare students for program management or direct service positions working with, and on behalf of, older adults and their family members. The

program of study includes courses from a variety of departments including anthropology, nursing, psychology, sociology, social work, public policy administration, and optometry. Courses are offered primarily in the evening to accommodate part-time as well as full-time students.

## Learning Outcomes

- A detailed appreciation for the aging process with respect to successful aging, health status, physical functioning, cognition and capacity, psychosocial involvement, diversity, cultural influences and competence, and public policy;
- An ability to integrate theoretical perspectives on aging with the practical needs and concerns of individuals in various living environments;
- An ability to interpret and appropriately utilize research findings to inform daily practice, especially with respect to screening, assessment, intervention, and referral activities;
- Professional competence in the areas of ethical practice, participation in multidisciplinary teams, communication with clients and families, assessment and intervention.

## Admission Requirements

Program applicants must have the following:

- Baccalaureate degree.
- 3.0 or B average (students with exceptions should contact the director of the gerontology program).
- Official transcripts of all previous undergraduate/graduate work.
- Three letters of recommendation (from former instructors preferred; from professional associates acceptable).

In addition, students must meet the other general requirements for admission to the Graduate School as explained in the Graduate Study section of the Bulletin.

## Degree Requirements

The students are required to complete 36 credit hours, including 30 hours in gerontology and related courses and 6-hours of statistics/research courses. The required courses and electives are listed below. Once a requirement is met, courses from this list may also serve as electives.

## Gerontology Distribution Requirements

### A. Public Policy

Select one of the following: 3

GERON 6443/ Health Care Policy  
P P ADM 6430/  
POL SCI 6443  
(p. 444)

GERON 6444/ Seminar In Public Policy And Aging  
SOC WK 6443/  
P P ADM 6444/  
POL SCI 6444  
(p. 444)

### B. Health and Physical Aspects of Aging

Select one of the following: 3

GERON 6441 Aging And Health Behavior  
(p. 444)

GERON 6470 Epidemiology of Aging  
(p. 444)

### C. Sociocultural Aspects of Aging

Select one of the following: 3

GERON/ Cultural Aspects Of Aging  
ANTHRO 5440  
(p. 444)

GERON 5361 Advanced Social Gerontology  
(p. 444)

### D. Clinical and Psychosocial Aspects of Aging

Select two of the following: 6

GERON 5376 Psychopathology And Aging  
(p. 444)

GERON/SOC Theory and Practice with Older Adults  
WK 6120 (p.  
444)

GERON/SOC Interviewing Older Adults And Life Review  
WK 6130 (p.  
444)

GERON/SOC Gerontological Assessment  
WK 6450 (p.  
444)

### E. Practica in Gerontology

Select two of the following: 6

GERON 6495 Practicum In Gerontology (required)  
(p. 444)

GERON 6496 Advanced Practicum In Gerontology  
(p. 444)

GERON 6500 Practicum in Gerontological Research  
(p. 444)

### F. Gerontology Electives <sup>1</sup>

Once a requirement is met, any course from the listing below can serve as an elective. 9

### G. Graduate-level statistics course

3 credits and graduate level research methods course <sup>2</sup> 6

Total Hours 36

<sup>1</sup> Program Administration Option (see below)

<sup>2</sup> Students should consult Director of Gerontology for approved courses.

## Program Administration Option

Students interested in emphasizing program administration qualifications as part of the MSG may request to apply their 9 elective credits towards earning a Certificate in Nonprofit Management & Leadership offered through Public Policy Administration. Students interested in this option must meet with the Certificate Director and request admission by the end of their second semester in the MSG Program. If admitted, the Director of Gerontology and the Certificate Director will work cooperatively to arrange a joint plan of study to meet objectives of both degrees within the 36 credits required for the MSG. Both practicum courses (GERON 6495 (p. 444) & GERON 6496 (p. 444)) must emphasize program administration as part of this plan.

## Graduate Certificate in Gerontology

The graduate certificate in gerontology is designed for students who wish to receive post-baccalaureate training in gerontology. The certificate can

be taken by itself or in conjunction with pursuit of a graduate degree in another field. Eighteen credit hours are required.

## Admission Requirements

Program applicants must have the following:

- Baccalaureate degree.
- 3.0 grade point average (students with exceptions should contact the director of the gerontology program).
- Official transcripts of all previous undergraduate/ graduate work.
- Two letters of recommendation.

Students already enrolled and in good standing in another masters or doctoral degree program at the University of Missouri – St. Louis should consult with the director of the gerontology program concerning streamlined admission options.

## Distribution Requirements

### A. Public Policy

Select one of the following: 3

GERON/POL Health Care Policy  
SCI 6443 (p.  
444)

GERON/P Seminar In Public Policy And Aging  
P ADM/POL  
SCI 6444 (p.  
444)

### B. Health and Physical Aspects of Aging

Select one of the following: 3

GERON 6441 Aging And Health Behavior  
(p. 444)

GERON 6470 Epidemiology of Aging  
(p. 444)

### C. Sociocultural Aspects of Aging

Select one of the following: 3

GERON/ Cultural Aspects Of Aging  
ANTHRO 5440  
(p. 444)

GERON 5361 Advanced Social Gerontology  
(p. 444)

### D. Clinical and Psychosocial Aspects of Aging

Select two of the following: 6

GERON 5376 Psychopathology And Aging  
(p. 444)

GERON/SOC Theory and Practice with Older Adults  
WK 6120 (p.  
444)

GERON/SOC Interviewing Older Adults And Life Review  
WK 6130 (p.  
444)

GERON/SOC Gerontological Assessment  
WK 6450 (p.  
444)

### E. Elective

Select one of the following: 3

GERON 6495 Practicum In Gerontology  
(p. 444)

Another elective course from the listing below.

Total Hours

18

## Courses

### **GERON 1220 Special Topics In Gerontology: 3 semester hours**

Same as INTDSC 1220 Selected topics dealing with various aspects of gerontology. The specific contents of this course will vary from semester to semester. The course may be repeated with permission from the Gerontology director.

### **GERON 2256 Bioethics: 3 semester hours**

Same as PHIL 2256. An examination of ethical issues in health care practice and clinical research and in public policies affecting health care. Topics include: abortion, euthanasia, health care, experimentation, informed consent and the right to health care.

### **GERON 2272 Developmental Psychology: Adulthood And Aging: 3 semester hours**

Same as PSYCH 2272. Prerequisites: PSYCH 1003. Personality social and physiological development from the onset of early adulthood through maturity and old age.

### **GERON 2280 Psychology Of Death And Dying: 3 semester hours**

Same as PSYCH 2280. Prerequisite: PSYCH 1003. A beginning exploration of end-of-life issues integrating the scholarly, social, and individual dimensions of death and dying. This course provides a solid grounding in theory and research, as well as practical application to students' lives.

### **GERON 3215 Aging Across Cultures: 3 semester hours**

Same as ANTHRO 3215. Prerequisites: ANTHRO 1011 or PSYCH 1003 or SOC 1010, or consent of instructor. This course examines the wideranging variability in the roles of older people across different cultures and the effects these have on older people, their families, and their societies.

### **GERON 4361 Social Gerontology: 3 semester hours**

Same as SOC 4361. Prerequisites: SOC 1010 and junior standing or consent of instructor. Topics include: sociological theories of aging, technological and social change and its effects on the environment of older people, and prejudice and discrimination against the elderly.

### **GERON 4376 Mental Health And Aging: 3 semester hours**

Same as PSYCH 4376 and SOC WK 4376. Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) This course provides a survey of theory and research in mental health issues for older populations, focusing on psychological and social aspects of mental health and impairment. The course details approaches to understanding prevalence, etiology, assessment, and treatment of the psychological disorders most commonly experienced by older adults, including anxiety, depression, delirium, and dementia, among others.

### **GERON 4490 Directed Readings: 1-3 semester hours**

Prerequisites: Consent of instructor Directed reading and research or field work. May be repeated for a maximum of three hours.



**GERON 4680 Introduction to Gerontological Practice: 3 semester hours**

Same as SOC WK 4680. Prerequisites: Advanced undergraduate or graduate standing. This course introduces key concepts and practices in the evaluation and care of older adults. It is intended for students considering aging-focused careers in the social service or healthcare fields. Topics include developmental and health-related theories of aging, functional and psychosocial aspects of aging, working with older adults in various service settings, multi and interdisciplinary team approaches, and basic standards of professional conduct that apply across professions.

**GERON 4700 Successful Aging: Individual & Societal Perspectives: 3 semester hours**

This course addresses key components of successful aging including avoidance of disease, maintenance of good mental and physical function, and sustained engagement in life. Students become familiar with the different intra- and extra-personal determinants of successful aging and learn to distinguish between the concepts of successful and productive aging. Also discussed is the impact of societal, economic and political context on success in aging (e.g. health care delivery, entitlement programs, technology, globalization, volunteerism, and culture).

**GERON 5320 Gender & Aging: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. This course examines advancing age through a gender lens. Men and women experience aging differently based on a host of genetic, biological, psychological, sociocultural and personal identity factors. This course challenges students to consider aging from various perspectives, including cultural expectations and norms, couple and family relationships, health and function, work life and retirement, sexual orientation, gender identity, concerns of LGBT elders, and veteran's issues.

**GERON 5361 Advanced Social Gerontology: 3 semester hours**

Prerequisites: Graduate Standing. An examination of sociological theories of aging, technological and social change and its effects on the environment of older people, and prejudice and discrimination against the elderly.

**GERON 5376 Psychopathology And Aging: 3 semester hours**

Prerequisites: Graduate Standing Recent theory and research in mental health issues for older populations. The primary focus is on major psychological disorders prevalent among older adults and in assessment and treatment approaches for aging populations.

**GERON 5420 Research Methods and Analysis I: 3 semester hours**

Prerequisites: Admission to the MSG Program or graduate standing. The first of a two-course sequence designed to provide students with the knowledge base and skills for using the scientific method to advance gerontological knowledge, theory and evidence-based practice. Focuses on research methods employed in aging-related studies, with a special emphasis on the critical evaluation of academic studies and the evidentiary basis of key findings. Covers quantitative and qualitative approaches, research design, sampling procedures, measurement, use of results, impact of research, and ethical considerations.

**GERON 5440 Cultural Aspects Of Aging: 3 semester hours**

Same as ANTHRO 5440. Prerequisites: Graduate status or consent of the instructor. Focuses on the variety of solutions encountered in different sociocultural contexts for dealing with the problems, challenges and opportunities of growing old. It is organized around topics that are of concern to both anthropology and social gerontology: the status of the aged, intergenerational relations, aging in modernizing societies, ethnic dimensions of aging in complex societies, health in later life, death and dying. Both in-depth case studies and cross-cultural comparisons are examined in an effort to arrive at a culturally informed assessment of factors affecting aging and the aged in the United States.

**GERON 5450 Research Methods and Analysis II: 3 semester hours**

Prerequisites: GERON 5420 or equivalent. An advanced course focused on the framing and analysis of qualitative and quantitative data to advance gerontological knowledge, theory, and evidence-based practice. Students learn to use and interpret various statistical procedures for analyzing qualitative and quantitative data (including bivariate and multivariate analyses). Students apply various analytic techniques using computer software applications.

**GERON 5610 Mechanisms Of Aging I: The Aging Body: 1 semester hour**

Same as SOC WK 5610 and PSYCH 5610 Prerequisites: Graduate standing and BIOL 1102 or equivalent. (MSW students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social science/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

**GERON 5611 Mechanisms Of Aging II: The Aging Brain: 1 semester hour**

Same as SOC WK 5611 and PSYCH 5611. Prerequisites: GERON 5610 or SOC WK 5610 or PSYCH 5610 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

**GERON 5612 Mechanisms Of Aging III: Diseases Of Aging: 1 semester hour**

Same as SOC WK 5612 and PSYCH 5612. Prerequisites: GERON 5610 and GERON 5611 or SOC WK 5610 and SOC WK 5611 or PSYCH 5610 and PSYCH 5611 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background with information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.

**GERON 5620 Dying, Grief & Death in Older Adulthood: 3 semester hours**

Same as SOC WK 5620. Prerequisite: Six hours of graduate level gerontology, psychology, counseling and/or social work coursework, or special approval from the instructor. Undergraduates in their senior year may also request approval for entry from the Director of Gerontology. For those planning to work with older adults in counseling, healthcare, hospice, and/or community support settings. Will examine trajectories to death in older age, the dying process, influences of medical and aging-related conditions, euthanasia and suicide, life extension and longevity, personal beliefs and existential responses, how individuals and families cope, ethical concerns, and strategies for supportive intervention. Topics are addressed from clinical, supportive care, and interdisciplinary perspectives.

**GERON 6120 Theory and Practice with Older Adults: 3 semester hours**

Same as SOC WK 6120. Prerequisites: Graduate Standing. Examines theory and empirically-based assessment and intervention models for work with the elderly. It includes the life circumstances of older adults and how that differs from younger adult populations; how ethnicity, gender, social class, and sexual orientation interact with age and create special intervention issues; discussion of ethical and value issues (e.g. client autonomy, rationing of health care); examination of family and community resources in providing care; and interventions with physically or mentally disabled elders and elders in residential settings.

**GERON 6130 Interviewing Older Adults And Life Review: 3 semester hours**

Same as SOC WK 6130. Prerequisite: Graduate Standing. This course combines training in interviewing techniques with video editing/production. Students will learn how to conduct life review interviews with older adults, and then take these skills into the community by interviewing older adults living in various settings. Students will learn how to use a digital video camera and edit video clips on the computer. Student-conducted interviews will be viewed by the instructor and classmates, issues associated with aging will be discussed, and constructive feedback provided. Some of the video clips developed in the course will become part of an educational video clip library.

**GERON 6441 Aging And Health Behavior: 3 semester hours**

Same as PSYCH 6441. Prerequisite: Graduate standing. This course examines sociocultural influences on health care practices of older adults. The role of social support and other social resources in the health behavior of older adults is emphasized. Topics include self care decisions, formal service utilization, family caregiving, and planned interventions for older adults.

**GERON 6443 Health Care Policy: 3 semester hours**

Same as P P ADM 6430, POL SCI 6443, and SOC WK 6443. Prerequisites: Graduate standing or consent of instructor. Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

**GERON 6444 Seminar In Public Policy And Aging: 3 semester hours**

Same as P P ADM 6444, and POL SCI 6444. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include: housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

**GERON 6449 Issues In Retirement: 3 semester hours**

Prerequisites: Graduate standing. This course examines macro and micro issues of retirement in the United States--its processes, causes, and consequences--in relation to economic market conditions, demographic changes, and programs and policies that are targeted to support the elderly (e.g., Social Security). It also examines issues relating to older women and retirement.

**GERON 6450 Gerontological Assessment: 3 semester hours**

Same as SOC WK 6450. Prerequisite: Graduate standing. This course provides an overview of psychosocial assessment with older adults and their family caregivers. major areas of gerontological assessment practice are considered, including dementia, mood disorders, suicide, grief, alcoholism, elder abuse/neglect, family caregiving, and interdisciplinary team issues.

**GERON 6460 Long Term Care Administration: 3 semester hours**

Prerequisite: Graduate Standing This course provides an overview of long term care programs and services for older adults. Administrative issues are reviewed, including patient services, state licensure requirements, human resource management, and reimbursement practices. Characteristics of well-functioning facilities are addressed, as well as consultation with families during the placement decision process.

**GERON 6470 Epidemiology of Aging: 3 semester hours**

Prerequisites: Graduate Standing. This course reviews the distribution and determinants of health-related conditions and functional concerns in older populations. An emphasis is placed on key concepts and methodological considerations for conducting epidemiological studies. Students learn about the epidemiology of selected diseases, syndromes and conditions common to older age, including various trajectories of physical and cognitive decline. Also discussed are the roles that epidemiological data play in the development of interventions to control and prevent age-related disease and inform public health decision-making and evidence-based geriatric practice.

**GERON 6490 Directed Study: 1-3 semester hours**

Prerequisite: Consent of Instructor. Designed to give the student an opportunity to pursue a more in-depth study of a problem area in gerontology than is normally covered in more formal courses. May be repeated for a total of six credit hours.

**GERON 6495 Practicum In Gerontology: 3 semester hours**

This course provides supervised work experience in an agency that serves older adults. Students are required to complete a minimum of 150 clock hours at the practicum site.

**GERON 6496 Advanced Practicum In Gerontology: 3 semester hours**

Prerequisites: GERON 6495 and consent of instructor This course provides advanced practicum experience beyond GERON 6495. Students must complete a minimum of 150 clock hours of supervised field work (service or research) with older adults.

**GERON 6497 Interdisciplinary Geriatric Care: 3 semester hours**

Prerequisites: Consent of instructor. Same as VIS SCI 6497. Interdisciplinary approaches that address the medical, social, instrumental and functional needs of older adults will be examined. Information about geriatric care management and social issues affecting the well-being of older adults will be provided. Clinical, theoretical, and educational perspectives will be presented.

**GERON 6498 Advanced Seminar In Gerontology: 3 semester hours**

Prerequisite: Graduate standing. This course will provide in-depth analysis of specialized topics in gerontology which are not covered in required courses. (Course may be repeated for a maximum of nine credits, assuming topics are different.)

**GERON 6499 Topics In Gerontology: 1-3 semester hours**

Prerequisite: Graduate standing. Analysis of a current problem in gerontology. (Course may be repeated for maximum of five credits, assuming topics are different.)

**GERON 6500 Practicum in Gerontological Research: 3 semester hours**

Prerequisites: GERON 6495 and consent of the instructor. A supervised social science research experience involving a combination of two or more of the following activities: literature review, hypothesis generation, study design and proposal, IRB application, participant recruitment, data collection, data management, data analysis, and report/article generation.

**GERON 6510 Directed Research in Aging: 1-3 semester hours**

Prerequisites: Consent of the instructor. Designed to give the student an opportunity to explore a question of interest from a qualitative and/or quantitative research perspective. This supervised experience may include one or more of the following activities (depending on enrolled hours): literature review, hypothesis generation, study design and proposal, IRB application, participant recruitment, data collection, data management, data analysis, and report/article generation.

## Social Work

### General Information

#### Degrees and Areas of Concentration

The Social Work program offers courses leading to a bachelor of social work (B.S.W.), a master of social work (M.S.W.), and a minor in social work. The B.S.W. and the M.S.W. programs are fully accredited by the Council on Social Work Education. The programs stress the critical, empirical, and applied aspects of social work, incorporating a liberal arts perspective throughout the curriculum. There is a strong accent on community and agency field work as an integral part of the program. Professional social work education enables students to integrate the knowledge, values, and skills of the profession into competent practice.

Students must apply for admission into the B.S.W. and the M.S.W. programs. After admission, undergraduate social work majors and Master's students should obtain a copy of the Student Handbook (available on the School of Social Work's web page). Students in both programs must meet with a social work adviser for advisement each semester, and must set up an appointment with the practicum office and attend a series of pre-practicum orientation sessions one semester prior to enrolling in the practicum.

#### Career Outlook

The bachelor of social work program prepares persons for entry-level employment in social welfare agencies, schools, hospitals, correctional institutions, social action and community organizations, and day care, geriatric, or rehabilitation and residential centers. The master of social work program prepares professionals for advanced social work practice with individuals, families, groups, organizations, and communities. Individuals currently working in social welfare can develop skills and increase employment and job advancement opportunities with the B.S.W. and M.S.W. degrees.

### Undergraduate Studies

#### Objectives of the BSW Program

The BSW program has the following educational outcomes. Students who graduate with a BSW will be generalist practitioners who:

- Identify as professional social worker and conduct themselves accordingly.
- Understand the values and ethics of the social work profession and the relationship between personal beliefs and values, professional values and ethics, and professional social work practice.
- Utilize critical thinking, capacity building, analytical and communication skills to synthesize and analyze information to inform social work practice.
- Understand the importance of diversity, difference, power, and privilege in shaping life experiences for diversity competent practice.

- Possess the knowledge and skills to fight effectively against human oppression, discrimination, and social inequity and to formulate and foster social change initiatives to advance social and economic justice.
- Engage in research-informed practice and practice-informed research to evaluate professional practice and /or the professional practice of others.
- Apply knowledge of human behavior and the social environment to guide assessment and intervention.
- Understand major social and welfare policies and analyze and formulate policies to advocate for social and economic justice.
- Use leadership skills to respond to the changing context of social work practice.
- Utilize skills of engagement, assessment, intervention and evaluation, including theory and practice skills, across all levels of practice.

### General Education Requirements

Majors must satisfy the university and college general education requirements (<http://bulletin.umsl.edu/generaleducationrequirements>), although proficiency in a foreign language is recommended but not required.

Courses required for the B.S.W. degree may not be taken on a satisfactory/unsatisfactory basis except SOC WK 4800 (p. 449) and SOC WK 4850 (p. 449).

### Admission Requirements

Students entering UMSL as freshman and as transfer students should indicate a pre-social work major. Students must apply to the program concurrently with SOC WK 3100 (p. 449). Admission to the program is conditional upon the successful completion of all necessary requirements.

Requirements for Admission to the Social Work program:

- Junior standing
- Have a GPA of 2.75 or higher in social work related areas.
- Submission of:
  - Application for admission to the social work program.
  - Two letters of reference: one from a college or university professor and one other from a work or volunteer experience supervisor.
- Completion of SOC WK 2000 (p. 449), SOC WK 2001 (p. 449), and SOC WK 2200 (p. 449) or their equivalents or completion of an A.A. in Human Services.
- Satisfactory completion of all courses listed as prerequisites for , SOC WK 3210 (p. 449), and SOC WK 3510 (p. 449).

Applicants may be asked to meet with the social work Admissions Committee.

### Bachelor of Social Work

Students must have a minimum GPA of 2.5 in social work and related-area requirement courses to enter field practicum. Candidates for this degree program must complete the core requirements including the following social work courses:

SOC WK 2000 (p. Social Work And Social Issues 449)	3
SOC WK 2001 (p. Social Work and Social Issues Lab 449)	1

SOC WK 2200 (p. Social Welfare As A Social Institution 449)	3
SOC WK 3100 (p. Introduction To Strategies for Social Work Practice 449)	3
SOC WK 3210 (p. Social Issues And Social Policy Development 449)	3
Select one of the following:	3
SOC WK 3410 Research Design In Social Work (p. 449)	
SOC 3230 (p. Research Methods 449)	
PSYCH 2219 Research Methods (p. 449)	
CRIMIN 2210 Research Methods In Criminology And Criminal Justice (p. 449)	
SOC WK 3510 (p. Human Behavior In The Social Environment 449)	3
SOC WK 3700 (p. Diversity And Social Justice 449)	3
SOC WK 4110 (p. Social Work Practice with Individuals, Families, and Groups 449)	3
SOC WK 4300 (p. Social Work Practice with Communities 449)	3
SOC WK 4350 (p. Human Service Organizations 449)	3
SOC WK 4800 (p. Supervised Field Experience In Social Work I and Supervised Field Experience In Social Work & SOC WK 4850 II (p. 449)	8
SOC WK 4801 (p. Integrative Field Experience Seminar I and Integrative Field Seminar II & SOC WK 4851 (p. 449)	4
Total Hours	43

A minimum of 43 hours or a maximum of 50 hours must be taken in social work. A minimum of 30 hours is required in related area departments.

Evaluation of social work transfer credits will be done by a social work adviser on an individual basis.

## Related Area Requirements

The following courses, or their alternatives, are required:

ECON 1000 (p. Introduction To The American Economy 449)	3
or ECON 1005 (p. Family Economics and Household Development 449)	
POL SCI 1100 (p. Introduction To American Politics 449)	3
PSYCH 1003 (p. General Psychology 449)	3
<b>Biology</b>	
Select one of the following:	3-4
BIOL 1102 (p. Human Biology 449)	
BIOL 1131 (p. Human Physiology And Anatomy I 449)	

BIOL 1141 (p. Human Physiology And Anatomy II 449)	
BIOL 1202 (p. Environmental Biology 449)	
<b>Sociology</b>	
SOC 1010 (p. Introduction To Sociology 449)	3
SOC 2160 (p. Social Psychology 449)	3
Select one of the following:	3-4
SOC 3220 (p. Social Statistics 449)	
PSYCH 2201 Psychological Statistics (p. 449)	
CRIMIN 2220 Statistical Analysis In Criminology And Criminal Justice (p. 449)	
At least 9 additional hours must be taken in social work, sociology, political science, psychology, gender studies, anthropology, criminology and criminal justice, or economics at the 2000 level or above.	9
Total Hours	30-32

Hours taken in social work will apply toward the maximum of 50 hours that may be taken in social work courses. The Social Work program may require students to pass a placement test to enroll in the next level course, provided this test or its equivalent is administered to all students seeking to enroll in that course.

Social work majors must have a grade of C- or better and maintain a cumulative grade point average of 2.5 or better in all course work specifically required for the major, with satisfactory grades in practicum.

Note: Anthropology, biological sciences, economics, and Spanish courses are strongly recommended by graduate schools of social work.

## Requirements for the Minor in Social Work

Candidates must complete the following social work courses:

SOC WK 2000 (p. Social Work And Social Issues 449)	3
SOC WK 2200 (p. Social Welfare As A Social Institution 449)	3
SOC WK 3100 (p. Introduction To Strategies for Social Work Practice 449)	3
SOC WK 3210 (p. Social Issues And Social Policy Development 449)	3
Select one additional social work course at the 3000 level or above.	3
Total Hours	15

## Graduate Studies

### Goals of the Master of Social Work

The goals of the M.S.W. program of the University of Missouri- St. Louis are consistent with the land-grant public service mission of the University, the MSW feasibility study, and the educational policy statement of CSWE and are to:

- Prepare students with the professional knowledge, skills, values and ethics for effective social work practice.



- Prepare students to utilize critical thinking and capacity building skills at all levels of social work practice.
- Prepare students to analyze and address dynamic issues and challenges facing diverse populations and to promote social justice and positive social change.
- Prepare students to conduct and utilize research to respond effectively to dynamic social contexts, issues and problems found in social work practice.
- Assist and support faculty in the advancement of social work knowledge, teaching and service.
- Develop and participate in collaborative activities with social agencies, communities, organizations, and governments that will enhance student learning, enrich faculty research and teaching, and promote human and societal well-being.

## Master of Social Work

### Admission Requirements

Admission to the M.S.W. Program requires admission to the University of Missouri-St. Louis Graduate School and acceptance by the School of Social Work. Applicants to the program must meet the following requirements to be considered for admission:

- Completion of a bachelor's degree from a college or university accredited by a recognized regional accrediting organization.
- Completion of a liberal arts education including courses in the humanities, the social and behavioral sciences, and the physical sciences. These courses must include one in human biology and one in statistics.
- Attainment of a cumulative grade point average of at least 3.0 on a 4.0 scale for all undergraduate course work and a grade point average of 3.0 on a 4.0 scale in the major field.
- Submission of the following documents by the admission deadline:
- A completed application to the UMSL Graduate School and a completed M.S.W. supplemental application
- Three written essays.
- Three letters of reference. – One from a professor in your major field of study, and one from a work or volunteer supervisor or other professional reference. Letters from employees/supervisees, friends, and family may not be used.
- Official transcripts from all colleges and university attended.
- Applicable fees.

### Application Deadline

The deadline for application to the MSW program is February 15 for admission in the following fall semester. See School of Social Work's website, for more details.

### Admissions to the Advanced Standing Program

Applicants with a B.S.W., B.A.S.W., or B.S.S.W., from an accredited social work program may be given up to 24 credit hours of advanced standing for foundation social work courses. Admission to the advanced standing program is available to applicants who meet the general admission requirements and who:

1. have earned a bachelor's degree in social work from a program accredited by the Council on Social Work Education within five years of applying to the M.S.W. Program, and

2. have earned a grade point average of at least 3.0 on a 4.0 scale in the social work foundation curriculum, and no less than a B in all courses that are applicable.

### Course Waivers

A student who does not have a bachelor's degree in social work but who can document successful completion (with at least a B) of foundation courses from an accredited B.S.W. program within the last five years will be given course waivers and be allowed to replace these courses with electives.

Students from non-accredited B.S.W. programs or students who have taken comparable course work in other undergraduate programs may take place-out examinations for select foundation courses; waivers will be given if students successfully pass place-out examinations. The waiver does not provide graduate credit; it is a mechanism for allowing elective courses to be substituted for required foundation courses.

Academic credit cannot be given for life experience and/or previous work experience, in whole or in part, in lieu of field practicum or foundation year courses.

### Degree Requirements

The M.S.W. is a two-year program comprising a foundation year and a concentration year. All students are required to take the foundation year courses. These provide a common base of knowledge across all practice settings and populations. Beyond the general requirements of the Graduate School, the department requires a minimum of 60 semester hours of course work, of which 48 must be at the 5000 or 6000 level and 48 must be in social work or cross-listed with social work, including the following foundation courses:

SOC WK 5100	Generalist Social Work Practice	3
SOC WK 5200	Social Policy And Social Services	3
SOC WK 5300	Community Practice And Social Change	3
SOC WK 5350	Social Work And Human Service Organizations	3
SOC WK 5410	Social Work Research Methods And Analysis I	3
SOC WK 5450	Social Work Research Methods And Analysis II	3
SOC WK 5500	Foundations Of Human Behavior In The Social Environment	3
SOC WK 5700	Diversity and Social Justice for Social Work	3
SOC WK 5800	Graduate Field Practicum I	4
SOC WK 5801	Foundation Field Practicum Seminar	2
Total Hours		30

Upon completion of the 30 credits of foundation year requirements, students move into a year of specialization, called the concentration. The concentration year requires 30 hours of course work that includes up to 12 hours of elective graduate-level courses approved by the adviser. Students plan their degree program to reflect their career interests in the following concentration areas:

- Family Practice
- Social Work Leadership and Management
- Gerontology

The MSW program has organized courses into areas of emphasis which are suggested courses based on interest.

To remain in good standing, students must maintain a cumulative GPA of 3.0 or better.

The field practicum is an integral part of the concentration year. Students will complete 300 hours (20 hours of full-time work each week) of M.S.W. supervised practice in an agency during the second semester of the foundation year, and 600 hours total (20 hours of full-time work per week) in the concentration year. A student must receive a grade of B or better in the first-year field practicum course in order to be eligible to enter the second year field practicum. S/U grades are given for the concentration practicum.

## Part Time Status

Students who enter the program as part-time students complete the foundation year in two years and the concentration course work in an additional two years.

All students must complete the M.S.W. in four years.

## Sample Four Year Plan

First Year		
Fall	Hours Spring	Hours
BIOL 1012	3 General Education	6
SOC 1010	3 ECON 1000 or 1005	3
ENGL 1100	3 BIOL 1102	3
PSYCH 1003	3 Elective or minor	3
General Education	3	
	<b>15</b>	<b>15</b>
Second Year		
Fall	Hours Spring	Hours
SOC WK 2000	3 SOC WK 2200	3
SOC WK 2001	1 PSYCH 2160	3
POL SCI 1100	3 Social Science elective <sup>1</sup>	3
MATH 1020 or 1030	3 General Education	3
General Education	3 Elective or minor	3
Elective or minor	3	
	<b>16</b>	<b>15</b>
Third Year		
Fall	Hours Spring	Hours
SOC WK 3100	3 SOC WK 3210	3
ENGL 3100	3 SOC WK 3700	3
Social Science elective <sup>1</sup>	3 SOC WK 4110	3
SOC WK 3510	3 SOC WK 3410 CRIMIN 2210, or PSYCH 2219	3
SOC 3220, CRIMIN 2220, or PSYCH 2201	3-4 Social Science Elective <sup>1</sup>	3
	<b>15-16</b>	<b>15</b>
Fourth Year		
Fall	Hours Spring	Hours
SOC WK 4300	3 SOC WK 4850	4
SOC WK 4350	3 SOC WK 4851	2
SOC WK 4800	4 Elective or minor	9

SOC WK 4801	2	
Elective or minor	3	
	<b>15</b>	<b>15</b>

Total Hours: 121-122

- <sup>1</sup> Nine hours must be taken in SOC WK, SOC, PSYCH, POL SCI, CRIMIN, ANTHRO, ECON or GS at the 2000 level or above.

*Please Note: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change*

## Courses

### **SOC WK 2000 Social Work And Social Issues: 3 semester hours**

Prerequisites: SOC 1010 or PSYCH 1003 Examination of the network of social programs and services developed in response to social problems in modern urban communities and the various roles and functions performed by the helping professions. Students will be introduced to basic values, skills, and training involved in a helping relationship as well as the characteristics of clients seeking help and professionals engaged in the helping process.

### **SOC WK 2001 Social Work and Social Issues Lab: 1 semester hour**

Prerequisites: Simultaneous with SOC WK 2000. The lab session will be used for field trips to social agencies which will allow students to better understand the many roles social workers are involved in This course is required for social work majors.

### **SOC WK 2102 Introduction To Gender Studies: 3 semester hours**

Same as HIST 2102, SOC 2102, and GS 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

### **SOC WK 2200 Social Welfare As A Social Institution: 3 semester hours**

Prerequisite: SOC WK 2000 or consent of instructor. A study of the: 1) development of social welfare service and the philosophy underlying the present practices and systems, 2) present social welfare programs with particular emphasis given to public income maintenance provisions, 3) special welfare needs of the black, elderly, women, indian and hispanic americans, and 4) Development of social work as a profession. This course may be taken by non-social work majors.

### **SOC WK 2201 Social Welfare As A Social Institution Laboratory: 1 semester hour**

Prerequisites: Simultaneous with SOC WK 2200. The lab session will be used for field trips to social agencies. This course is required for all Social Work majors.

### **SOC WK 2330 Asians In Migration: 3 semester hours**

This course is a comparative analysis of the social and cultural diversity of the peoples of East, South, and Southeast Asia. Study focuses on their reasons for migration and the extent and quality of the social and cultural connections they maintain to their homelands. Implications of these cultures for students in a variety of disciplines are explored. This course satisfies the cultural diversity requirement.

**SOC WK 3100 Introduction To Strategies for Social Work Practice: 3 semester hours**

Prerequisites: SOC WK 2200, SOC 1010 and PSYCH 1003 or permission of instructor. A presentation of basic knowledge, skills, and theory used for entry-level professional practice, such as problem assessment, interviewing skills, crisis intervention and referral procedures. The course objectives will also be to teach students how to help clients negotiate systems effectively, and to use resources, services, and opportunities.

**SOC WK 3210 Social Issues And Social Policy Development: 3 semester hours**

Prerequisites: SOC WK 2200, POL SCI 1100, and ECON 1000. The identification of issues concerning governmental provisions to meet contemporary social needs, with analysis of the principles and values underlying alternative solutions. A study of the processes by which citizen opinions and public policies evolve and are implemented in areas such as income maintenance, crime and delinquency, employment, family and child welfare, and public mental health.

**SOC WK 3410 Research Design In Social Work: 3 semester hours**

Prerequisites: Satisfaction of Math Proficiency requirement and either SOC 3220, CRIMIN 2220, or PSYCH 2201. Students explore research concepts and procedures (hypothesis testing, sampling, measurement, and design) emphasizing issues in social work research. Students learn to collect, analyze and present data.

**SOC WK 3510 Human Behavior In The Social Environment: 3 semester hours**

Prerequisites: BIOL 1012 and SOC 2160 or PSYCH 2160 or permission of instructor. This course will focus on the normative stages in the life span, and specifically, how human development is affected by the physical environment and social status characteristics. Empirical information and theoretical views on human development will be included. Human development will be viewed as a complex interaction of individual developmental stages with family, social, and community systems.

**SOC WK 3700 Diversity And Social Justice: 3 semester hours**

Same as GS 3700. Prerequisites: PSYCH 2160 or SOC 2160; and SOC WK 3100 taken prior or concurrently. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

**SOC WK 4110 Social Work Practice with Individuals, Families, and Groups: 3 semester hours**

Prerequisites: SOC WK 3100, SOC WK 3510, and SOC WK 3700 taken prior to or concurrently. This course continues the presentation of basic knowledge and practice skills for entry level professional practice begun in SOC WK 3100. It builds on the generalized helping model, incorporating specialized skills for working with specific groups of clients (e.g., children, aged, mentally ill, and physically handicapped), with families and small groups.

**SOC WK 4300 Social Work Practice with Communities: 3 semester hours**

Prerequisites: SOC WK 3210 taken prior to or concurrently, senior standing. Continuation of basic practice skills with emphasis given to analysis and intervention at the community level. Includes assessment of community assets and needs and the development of community-level interventions. Emphasis is also placed on helping the practitioner evaluate the impact of intervention.

**SOC WK 4350 Human Service Organizations: 3 semester hours**

Prerequisite: POL SCI 1100; PSYCH 2160 or SOC 2160 and admission to the BSW program or consent from instructor. This course seeks to help develop knowledge of organizational functioning and an understanding of organizational history, principles and philosophy of effective administration. Students develop theoretical and empirical understanding of groups and organizations, including concepts such as power and authority, organizational structure, goals, membership, leadership, motivation, technology and organizational culture. They will learn to develop a budget and to submit proposals for grant funding. Using a systemic perspective with organizations as settings for practice students learn to function in and through organizations.

**SOC WK 4376 Mental Health And Aging: 3 semester hours**

Same as GERON 4376 and PSYCH 4376. Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) This course provides a survey of theory and research in mental health issues for older populations, focusing on psychological and social aspects of mental health and impairment. The course details approaches to understanding prevalence, etiology, assessment, and treatment of the psychological disorders most commonly experienced by older adults, including anxiety, depression, delirium, and dementia, among others.

**SOC WK 4398 Child Maltreatment: A Multidisciplinary Approach: 3 semester hours**

SAME AS PSYCH 4398 and CAST 4398. Focuses on clinical aspects of child abuse with attention to identification, reporting, intervention and prevention. Perspectives from the disciplines of psychology and social work are provided.

**SOC WK 4601 Abused And Neglected Children: 3 semester hours**

Prerequisites: SOC WK 3510 or equivalent. This course explores the major concepts necessary for understanding abused and neglected children and their families. Emphasis is placed on (1) defining the problem, including societal stresses which contribute to the abuse and neglect; (2) examining existing practice methods; and (3) understanding the role of the social worker on interdisciplinary teams.

**SOC WK 4610 Intimate Partner Violence: 3 semester hours**

Same as GS 4610. Prerequisites: SOC WK 3510. Focuses on theoretical and empirical understanding of domestic violence in US society and social work practice with battered women and their families. Addresses direct services, community organizing, and public policy changes to help end violence against women. Relationships between violence against women and other forms of oppression (e.g., racism, economic exploitation, heterosexism and social class) are explored.

**SOC WK 4620 Addictions: Assessment And Intervention In Social Work Practice: 3 semester hours**

Prerequisites: SOC WK 4110 or SOC WK 5100 or equivalent, (or are taking concurrently), or consent of instructor. This class examines the interface of psychological, physical, social, and spiritual aspects of addiction. This practice class is designed to deepen students' abilities to address clients' issues related to addictions and addictive behaviors, including: prevention, assessment, and intervention. It builds on the generalized helping model within a systems perspective, and it introduces specialized skills for working with individuals, with specific groups of clients, with families, and with small groups.

**SOC WK 4630 Gender Issues in Social Work: 3 semester hours**

Same as GS 4630. Prerequisites: SOC WK 3700, GS 2102, or graduate standing. This course will help students become more sensitive to the social and welfare concerns based on gender. Topics may include work, education, family responsibilities, violence against women, and special health and mental health service needs. Emphasis will be placed on understanding how social action can be used to bring about positive change.

**SOC WK 4641 Crisis Intervention: 1 semester hour**

Prerequisites: SOC WK 4110 or SOC WK 5100 or equivalent (or are taking concurrently), or consent of instructor. This course introduces students to the theoretical framework as well as the skills needed to understand and engage in effective crisis intervention. Students will learn a specialized model for assessment and intervention with people in crisis and will have an opportunity to apply this model to a variety of case situations.

**SOC WK 4642 Non-Violent Crisis Intervention: 1 semester hour**

Prerequisites: Senior or Graduate Standing. Nonviolent Crisis Intervention is a nonharmful behavior management system designed to aid human service professionals in the management of disruptive and assaultive people. These techniques are used to reduce tension in agitated people, control anxiety during interventions, determine alternative approaches if a person becomes violent. Students will learn how to use nonverbal, paraverbal, verbal and physical intervention skills to maintain the best care and safety for clients.

**SOC WK 4643 Social Work Practice with Individuals with Development Disabilities: 1 semester hour**

Prerequisites: Senior Standing This evidence based course exposes students to the diverse issues related to the services and support needed by individuals with development issues. Students will explore the complex social contexts in which this population lives and the appropriate interventions to meet the unique challenges facing these individuals.

**SOC WK 4645 Social Work in Mental Health: 3 semester hours**

Prerequisites: SOC WK 3510 and SOC WK 4110 or the equivalent. The role of social work in the field of behavioral health has evolved over the last thirty years as the setting for service activity has shifted from inpatient facilities to community-based care and treatment. This course will integrate the basic components of good social work practice with the contemporary role of the social worker in the field of behavioral healthcare. This course will focus on practical applications of social work in the context of working with individuals and families dealing with mental health and/or addiction disorders with an emphasis on consumer empowerment and recovery.

**SOC WK 4670 Cross Cultural Perspectives On Social Policy: 3 semester hours**

Prerequisites: SOC WK 3210 or equivalent. This course examines social policies in different countries, which may include social insurance, social assistance, health care, and social services. Using a comparative framework, the course examines the nature of government involvement, and public and private sector relations. It examines adequacy, equity, inclusiveness, comprehensiveness, effectiveness, and efficiency of social policies in the countries being studied.

**SOC WK 4680 Introduction to Gerontological Practice: 3 semester hours**

Same as GERON 4680. Prerequisites: Advanced undergraduate or graduate standing. This course introduces key concepts and practices in the evaluation and care of older adults. It is intended for students considering aging-focused careers in the social service or healthcare fields. Topics include developmental and health-related theories of aging, functional and psychosocial aspects of aging, working with older adults in various service settings, multi and interdisciplinary team approaches, and basic standards of professional conduct that apply across professions.

**SOC WK 4800 Supervised Field Experience In Social Work I: 4 semester hours**

Prerequisite: SOC WK 3100, SOC WK 4110. SOC WK 4110 must be taken prior to or concurrently with SOC WK 4801; consent of instructor. This course provides students practice experience in social service agencies. Students work at the agencies approximately 20 hours per week. The purpose of this experience is to familiarize students with agency operations. Selection of the agency is based on student education needs.

**SOC WK 4801 Integrative Field Experience Seminar I: 2 semester hours**

Prerequisite: Consent of instructor and concurrent registration in SOC WK 4800. This seminar provides an opportunity for students to integrate previous course work with their experience in social work agencies. Classroom discussion will emphasize direct practice issues.

**SOC WK 4850 Supervised Field Experience In Social Work II: 4 semester hours**

Prerequisite: SOC WK 4800, SOC WK 4801 and consent of instructor this is a continuation of agency practice experience. Students work at the agency approximately 20 hours per week and continue at the same agency as SOC WK 4800 or change agencies with the consent of the instructor.

**SOC WK 4851 Integrative Field Seminar II: 2 semester hours**

Prerequisites: Consent of instructor and concurrent registration in SOC WK 4850. This seminar is a continuation of SOC WK 4801. Classroom discussion will emphasize administration and community organization issues.

**SOC WK 4900 Special Study: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent study through advanced readings in method and philosophy on a topic of particular interest, or field research in an agency.

**SOC WK 5100 Generalist Social Work Practice: 3 semester hours**

Prerequisites: SOC WK 4110 or equiv or admission to MSW program Using a problem-solving approach, students develop theoretical and empirical understanding and practical application of generalist social work methods. Students gain knowledge and skills that include interviewing, assessment, crisis and shortterm intervention, contracting, resource development, and case documentation needed for competent direct practice with diverse populations.

**SOC WK 5200 Social Policy And Social Services: 3 semester hours**

Prerequisites: SOC WK 3210 or POL SCI 2420 or POL SCI 3460 or equivalent or admission to the MSW program Covers the history and development of social welfare policies, legislative processes, and existing social welfare programs. Examines frameworks for social policy analysis, analyzes how social and economic conditions impact the process of social policy development and implementation, and introduces policy practice in social work.



**SOC WK 5300 Community Practice And Social Change: 3 semester hours**

Prerequisites: SOC WK 3300, or SOC 3344, or equivalent or admission to the MSW program Focuses on economic, social, and political theory and research on communities and social change. Examines conceptual models of community practice within the generalist model and develops skills in organizing, advocacy, and planning.

**SOC WK 5350 Social Work And Human Service Organizations: 3 semester hours**

Prerequisites: SOC WK 3510 and SOC WK 4300 or PSYCH 3318 or BUS AD 3611 or equivalent or admission to the MSW program. Students develop theoretical and empirical understanding of groups and organizations, including concepts such as power and authority, structure, goals, membership, leadership, motivation, technology and organizational culture. Using organizations as settings for social work practice and as targets for change, students learn strategies and skills for assessment and intervention.

**SOC WK 5410 Social Work Research Methods And Analysis I: 3 semester hours**

Prerequisites: SOC WK 3410 or SOC 3230 and SOC 3231 or equivalent and SOC 3220 or equivalent or admission to MSW program. The first of a two-course sequence designed to provide students with the knowledge base and skills for using scientific method to advance social practice, knowledge, and theory. Focuses on research methods at different levels (e.g., individual, group, organization, and community) and critical analysis and synthesis of academic literature necessary for effective, evidence-based social work practice. Covers quantitative and qualitative methods, research design, sampling, measurement, use of results, impact of research, and ethical considerations.

**SOC WK 5450 Social Work Research Methods And Analysis II: 3 semester hours**

Prerequisites: SOC WK 5410 or equivalent. Advanced course, focusing on analysis of qualitative and quantitative data to advanced social work practice, knowledge, and theory. Students learn to use and interpret various statistical procedures for analyzing quantitative data, including bivariate and multivariate analysis, and content and statistical analysis for qualitative data. Students apply these analytic techniques to social work case material using computer software applications.

**SOC WK 5500 Foundations Of Human Behavior In The Social Environment: 3 semester hours**

Same as GS 5500. Prerequisites: SOC WK 3510 or equivalent or admission to the MSW program. Focuses on theoretical and empirical understanding of human behavior in the social environment using a life-span perspective Introduces biological, behavioral, cognitive, and sociocultural theories of individuals, families, and small groups, and their implications for the professional social worker's understanding of socioeconomic status, gender, disability, ethnicity, race, and sexual orientation.

**SOC WK 5610 Mechanisms Of Aging I: The Aging Body: 1 semester hour**

Same as GERON 5610 and PSYCH 5610. Prerequisites: Graduate Standing and BIOL 1102 or equivalent (MSW students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social science/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

**SOC WK 5611 Mechanisms Of Aging II: The Aging Brain: 1 semester hour**

Same as GERON 5611 and PSYCH 5611. Prerequisites: SOC WK 5610, GERON 5610, PSYCH 5610 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

**SOC WK 5612 Mechanisms Of Aging III: Diseases Of Aging: 1 semester hour**

Same as GERON 5612 and PSYCH 5612. Prerequisites: SOC WK 5610 and SOC WK 5611, or GERON 5610 and GERON 5611, or PSYCH 5610 and PSYCH 5611 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background with information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.

**SOC WK 5620 Dying, Grief & Death in Older Adulthood: 3 semester hours**

Same as GERON 5620. Prerequisite: Six hours of graduate level gerontology, psychology, counseling and/or social work coursework, or special approval from the instructor. Undergraduates in their senior year may also request approval for entry from the Director of Gerontology. For those planning to work with older adults in counseling, healthcare, hospice and/or community support settings. Will examine trajectories to death in older age, the dying process, influences of medical and aging-related conditions, euthanasia and suicide, life extension and longevity, personal beliefs and existential responses, how individuals and families cope, ethical concerns, and strategies for supportive intervention. Topics are addressed from clinical, supportive care, and interdisciplinary perspectives.

**SOC WK 5635 Social Work Practice with Gay, Lesbian, Bisexual and Transgender Populations: 3 semester hours**

Same as GS 5635. Prerequisites: SOC WK 5100 and SOC WK 5500. This advanced practice course focuses on developing the theoretical and empirical knowledge and practice skills necessary for effective social work practice with lesbian, gay male, bisexual, and transgender (LGBT) persons and their families. This course aims to explore deeper understanding of LGBT identities, families, health and mental health challenges, and issues of political advocacy.

**SOC WK 5700 Diversity and Social Justice for Social Work: 3 semester hours**

Same as GS 5700. Prerequisite: Graduate Standing. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

**SOC WK 5800 Graduate Field Practicum I: 2-4 semester hours**

Prerequisites: Graduate standing and consent of instructor. Provides integrative field experience in generalist social work practice. May be taken for 2-4 hours' credit depending on time in agency during semester, 75 contact hours = 1 credit hour. May be repeated once. A maximum of 4 credit hours will apply to the M.S.W. degree.

**SOC WK 5801 Foundation Field Practicum Seminar: 2 semester hours**

Prerequisite: Graduate standing and consent of instructor. Integrates academic content from foundation course work and experiential learning in field placements. Goals are to conceptualize the problem solving process in field practice, synthesize theory into a social work approach that encourages creative use of self, and underscore ethics and service to diverse groups in practices.

**SOC WK 6120 Theory And Practice With Older Adults: 3 semester hours**

Same as GERON 6120. Prerequisites: Graduate Standing. Examines theory and empirically-based assessment and intervention models for work with the elderly. It includes the life circumstances of older adults and how that differs from younger adult populations; how ethnicity, gender, social class, and sexual orientation interact with age and create special intervention issues; discussion of ethical and value issues (e.g. client autonomy, rationing of health care); examination of family and community resources in providing care; and interventions with physically or mentally disabled elders and elders in residential settings.

**SOC WK 6130 Interviewing Older Adults and Life Review: 3 semester hours**

Same as GERON 6130. Prerequisites: Graduate Standing. This course combines training in interviewing techniques with video production. Students will learn how to conduct life review interviews with older adults, and then take these skills into the community by interviewing older adults living in various settings. Students will learn how to use a digital video camera and edit video clips on the computer. Student-conducted interviews will be viewed by the instructor and classmates, issues associated with aging will be discussed, and constructive feedback provided. Some of the video clips developed in the course will become part of an educational video clip library.

**SOC WK 6150 Theory And Practice With Families: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent, graduate standing and departmental approval. This course will examine theoretical approaches to social work with families, including the impact of the social environment. Skills will include assessment and multi-disciplinary intervention with multi-problem families. Special emphasis will be given to poverty, chemical dependency, intra-familial violence, physical and mental illnesses, and working with family members of diverse cultures, socioeconomic backgrounds, races, sexual orientation, and ability. Values and ethics will be emphasized.

**SOC WK 6160 Advanced Social Work Practice Across the Life Span: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent or consent of instructor Examines theory and empirically-based assessment and intervention strategies for diverse populations across the life span. Students will gain basic mastery of behavioral, cognitive-behavioral, brief therapeutic and supportive psychotherapeutic techniques and their appropriate use with children, adolescents, and young, middle and older adults. The course will also consider the effects of family, peers, and societal context (e.g. poverty, racism, and ageism) in understanding psycho-social stressors particular to each life era, including academic failure and delinquency, substance abuse, physical and mental illness, family disruption and instability, and grief and loss issues.

**SOC WK 6200 Family Policy: 3 semester hours**

Prerequisites: SOC WK 5200 or equivalent or consent of instructor and graduate standing. Examines policy development, implementation and impact of social policies on children, youth, and families. International, national, and state policies that affect basic family needs will be the focus, including topics such as economic support, health care, child care and protection, and child and youth development. Intended and unintended consequences of existing policies on the family will be examined as well as future policy directions.

**SOC WK 6250 Social And Economic Development Policy: 3 semester hours**

Same as POL SCI 6418. Prerequisites: SOC WK 5200 or equivalent or consent of instructor and graduate standing. Examines major trends and alternatives in social and economic development policy and practice in state, national, and international perspectives. Students will develop skills in policy analysis and development.

**SOC WK 6300 Leadership and Management in Nonprofit Organizations: 3 semester hours**

Same as P P ADM 6300 and POL SCI 6300. Prerequisites: Graduate standing required. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions, and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

**SOC WK 6310 American Philanthropy and Nonprofit Resource Development: 3 semester hours**

Same as P P ADM 6310. Prerequisites: Graduate standing required. This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the nonprofit, voluntary sector. It further examines the contemporary forces which impact philanthropy and charitable giving, both by institutions and individuals. The course examines the effective planning and management of development programs (e.g., annual giving), fund raising vehicles (e.g., mail solicitations) and the fund raising process, form planning through donor relations.

**SOC WK 6311 Staff Management Issues in Nonprofit Organizations: 1 semester hour**

Same as P P ADM 6311. Prerequisites: Graduate standing required. This course addresses issues involved in managing staff in nonprofit organizations. The course will cover the following topics: fundamentals of staff supervision; balancing supervisory processes with counseling and coaching; selecting, hiring, evaluating, and terminating staff' legal issues that affect these processes.

**SOC WK 6312 Legal Issues in Managing Nonprofit Organizations: 1 semester hour**

Same as P P ADM 6312. Prerequisites: Graduate Standing required. This course addresses legal issues involved in managing and governing nonprofit organizations. The course will cover the following topics: The Board as steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

**SOC WK 6313 Financial Issues in Managing Nonprofit Organizations: 1 semester hour**

Same as P P ADM 6313. This course addresses financial issues involved in governing and managing nonprofit organizations. The course will cover the following topics: Cash flow analysis; budgeting; fund accounting; cost accounting (determining costs for programs and services); understanding and using standard financial statements, including balance sheets, cash flow statements, statements of activity, and operating and capital budgets.

**SOC WK 6400 Practice And Program Evaluation: 3 semester hours**

Prerequisites: SOC WK 5410 and SOC WK 5450 or equivalent or consent of instructor. Provides specialized knowledge in the use of qualitative and quantitative research skills to evaluate the effectiveness of social work practice. Topics will include single system design, group designs, and program evaluation. Students will design and conduct a research project associated with their advanced social work practicum. Results will be presented to the class and the agency. Value and ethical issues, particularly those relevant to client race and gender will be emphasized as students develop and conduct their research.

**SOC WK 6443 Health Care Policy: 3 semester hours**

Same as POL SCI 6443, P P ADM 6430, GERON 6443. Prerequisites: Graduate Standing and consent of instructor. (MSW students will normally take the social policy foundation course prior to enrolling in this course.) Survey course examining current issues in health care policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

**SOC WK 6449 Human Resources In The Public Sector: 3 semester hours**

Same as POL SCI 6449 and P P ADM 6490 Prerequisites: P P ADM 6600 or consent of instructor. Presents an overview of personnel & labor relations in the public sector. Particular emphasis placed on issues which are unique to the public sector, such as the merit system, the questions of representative bureaucracy and the constraints of personnel in the nonprofit sector. The topics include personnel reforms in the federal sector, equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation, and labor relations including grievance arbitration and collective bargaining.

**SOC WK 6450 Gerontological Assessment: 3 semester hours**

**SOC WK 6491 Strategic And Program Planning For Nonprofit Organizations: 3 semester hours**

Same as POL SCI 6490 and P P ADM 6550. Prerequisites: Graduate Standing or consent of Instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

**SOC WK 6601 Evid Bsd Approaches in Direct SW Practice: Cog & Rational Emotive Behavioral Therapy Models: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Cognitive Behavioral and Rational Emotive Behavioral therapy models. Students will utilize these theories to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. This course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6602 Evid Bsd Approaches in Dir SWork Practice: Sol Focused Therapy Model: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Solution Focus therapy model. Students will utilize this theory to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. This course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6603 Evid Bsd Approaches in Dir SWork Practice: Play and Interactive Models: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Play and Interactive therapy models. Students will utilize these theories to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. This course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6604 Introduction to Motivational Interviewing: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160, or consent of instructor, and graduate standing. This course focuses on skill development in Motivational Interviewing (MI), a specific style of interaction used to help clients/patients increase internal motivation to change behavior. The course will include theoretical underpinnings of MI, including a review of research establishing MI as an evidence-based intervention for a number of behavior areas. The course will also review a model of learning MI and provide specific opportunities for students to practice the skill. The broad objective of this course is to provide social work students an overview of Motivational Interviewing and its application to various domains of social work.

**SOC WK 6630 Diagnosis And Related Pharmacology For Social Work**

**Practice: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent or consent of instructor. Course is designed for social work students, and will provide an overview of the development and treatment of selected mental health disorders classified by Diagnostic and Statistical Manual of Mental Disorders. In particular, the course will examine, from a systems perspective, the psychological and neuropsychological etiologies of mood, psychotic, personality and other disorders and their preferred pharmacological treatment.

**SOC WK 6640 School Social Work Practice in Public Schools: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent or graduate standing and consent of instructor. Examines the role of the social worker in school settings and includes work with youth, families, and communities in relation to the child or adolescent's functioning in school.

**SOC WK 6645 Hospital Social Work: 3 semester hours**

Prerequisites: SOC WK 5100 and SOC WK 5500 or equivalent. This course focuses the key issues and practices of providing social work services through an interdisciplinary model in a large academic urban hospital setting. Practice issues will include discharge planning (housing, transportation, insurance and finances, medications and social/community supports) with focus on cultural competence and health literacy. The course will also review the following aspects of hospital social work: inpatient medicine, inpatient psychiatry, forensic social work, emergency department social work, transplant social work and clinic social work. Class discussions will integrate information concerning current health care economics.

**SOC WK 6800 Graduate Field Practicum II: 2-6 semester hours**

Prerequisites: SOC WK 5800 and SOC WK 5801. Provides integrative field experience in student's graduate social work practice concentration. May be taken for 2 to 6 hours credit depending on time in agency during semester, 55 contact hours = 1 credit hour. May be repeated once and/or taken concurrently with SOC WK 6850.

**SOC WK 6850 Graduate Field Practicum III: 2-6 semester hours**

Prerequisites: SOC WK 6800 Provides advanced integrative field experience in students' graduate social work practice concentration. May be taken for 2 to 6 hours of credit depending on time in agency during semester, 55 contact hours = 1 credit hour. May be repeated once and/or taken concurrently with SOC WK 6800.

**SOC WK 6900 Directed Study In Professional Social Work: 1-10 semester hours**

Prerequisite: Graduate standing and consent of instructor. Independent graduate-level study on a topic of particular interest through readings, reports, and field work under faculty supervision.



# University of Missouri St. Louis/Washington University Joint Undergraduate Engineering Program

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## General Information

The Joint Undergraduate Engineering Program of UMSL and Washington University was approved in 1993 by the University of Missouri and the Coordinating Board for Higher Education. The program is designed to offer course work beyond the pre-engineering courses at UMSL and the area community colleges. Pre-engineering and general education courses are offered at UMSL, and upper-level engineering courses are offered in the late afternoons, evenings and on Saturdays on the Washington University campus: this schedule permits students to co-op during the day at local engineering firms. Students will be admitted to the upper-division program only after they have completed an acceptable pre-engineering program. They can earn a bachelor of science in civil engineering (B.S.C.E.), a bachelor of science in electrical engineering (B.S.E.E.), or a bachelor of science in mechanical engineering (B.S.M.E.).

## Mission Statement

The mission of the University of Missouri-St. Louis/Washington University Joint Undergraduate Engineering Program is to provide a high quality civil, mechanical, and electrical engineering education leading to a well-trained, sophisticated work force primarily for the St. Louis region. The program strives to excite and nurture the intellectual, technical, professional and personal development of the students through a partnership which provides a mechanism for Washington University to share its campus, resources and personnel with the UMSL students, many of whom are place-bound individuals. The Joint Program reflects the commitment of both institutions to work together to provide for the civil, mechanical and electrical engineering needs of the St. Louis community.

## Program Educational Objectives

The University of Missouri-St. Louis/Washington University Joint Undergraduate Engineering Program aspires to make positive, substantive and lasting contributions to the lives of our students. The nontraditional and traditional students in the civil, mechanical and electrical engineering programs often have work experience in or related to engineering practice. The program seeks to impart an education that inspires the graduates to constantly share their knowledge with others, to continually improve their knowledge and understanding, and to persistently adapt to change in technology and world needs. Graduates of the program are expected to develop and use professional skills that facilitate their continued career growth well beyond their graduation and should be able to apply their comprehensive education within the civil, mechanical and electrical engineering profession or a related field. The objectives are to:

- Meet the needs of employers of civil, mechanical, and electrical engineers, with an emphasis on the St. Louis region.
- Meet the expectations of graduate schools that our alumni attend.

## Student Outcomes

The student outcomes are the skills and knowledge expected of all students at the time of their graduation. Faculty members will assess these student outcomes in their classes every semester. The student outcomes for the Engineering Program are:

- An ability to apply knowledge of mathematics, science and engineering
- An ability to design and conduct experiments, as well as to analyze and interpret data
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- An ability to function on multidisciplinary teams
- An ability to identify, formulate, and solve engineering problems
- An understanding of professional and ethical responsibility
- An ability to communicate effectively
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- A recognition of the need for, and an ability to engage in, life-long learning
- A knowledge of contemporary issues
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

The B.S.C.E., the B.S.E.E., and the B.S.M.E. are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700.

## Admission

Normally admission is granted to persons who have completed the pre-engineering program with a minimum grade point average of 2.75 over all mathematics, chemistry, physics, and introductory engineering courses (statics and dynamics). Students with less than a 2.75 grade point average, but at least a C in all their science and math courses, may be admitted on a probationary basis. These students must pass an Engineering Math Workshop with a grade of B or better, and then pass J E MATH 3170 Engineering Mathematics in the first year with a C- or better, in order to continue in the program.

## Fees

Students register on the UMSL campus and pay UMSL fees plus an engineering fee for engineering courses. Limits on enrollments are determined by the availability of resources.

## Career Outlook

Engineering is one of the few careers in which the bachelor's degree is a professional degree. Students earning a bachelor of science degree in one of the engineering disciplines are well qualified for entry-level engineering positions in a variety of businesses, industries, consulting firms, and government agencies. As society becomes increasingly dependent on technology, the outlook for all engineering disciplines becomes increasingly bright. Engineering careers typically rank at, or very near, the top of virtually any published rating of promising jobs for the 21st Century. Besides tackling challenging technical problems, roughly two-thirds of all engineers will have some level of management responsibility

within ten years of receiving their bachelor's degrees. Many practicing engineers will eventually continue their education by pursuing graduate degrees on a part-time basis. Typical areas of graduate study include all advanced technical and scientific fields and management.

## For Further Information

For information about enrolling in this program, please contact the UMSL/Washington University Joint Undergraduate Engineering Program at 314-516-6800.

## Degree Requirements

- Bachelor of Science in Civil Engineering
- Bachelor of Science in Electrical Engineering
- Bachelor of Science in Mechanical Engineering

A program of 135 semester hours is required for the Bachelor of Science in Civil Engineering, a program of 122 semester hours is required for the Bachelor of Science in Electrical Engineering, and a program of 134 semester hours is required for the Bachelor of Science in Mechanical Engineering, as shown below:

- All majors must complete the University General Education requirements (<http://bulletin.umsu.edu/generaleducationrequirements>), the Pre-Engineering Requirements and the Core Engineering Requirements.
- All students must first complete J E MATH 3170, Engineering Mathematics, with a minimum grade of C-.
- Mechanical and Electrical Engineering majors must also complete J E ENGR 2300, Introduction to Electrical Networks with a minimum grade of C-.
- Civil engineering majors must complete either J E ENGR 2300, Introduction to Electrical Networks, or J M ENGR 3200 Thermodynamics, with a minimum grade of C-.
- A minimum grade of C- is necessary to meet the prerequisite requirement for any course.

## Pre-Engineering Requirements

MATH 1800	Analytic Geometry And Calculus I	5
MATH 1900	Analytic Geometry And Calculus II	5
MATH 2000	Analytic Geometry And Calculus III	5
MATH 2020	Introduction To Differential Equations	3
CHEM 1111	Introductory Chemistry I	5
PHYSICS 2111	Physics: Mechanics And Heat	5
PHYSICS 2112	Physics: Electricity, Magnetism, And Optics	5
ENGR 2310	Statics	3
ENGR 2320	Dynamics	3
ENGL 1100	First-Year Writing	3
Total Hours		42

Civil engineering majors must complete **GEOL 1001A**, General Geology as part of the pre-engineering requirements.

## General Education Requirements

PHIL 2259	Engineering Ethics	3
PHIL 3380	Philosophy Of Science	3

One additional Humanities course <sup>1</sup>

HIST 1001	American Civilization To 1865	3
or HIST 1002	American Civilization 1865 To Present	
or HIST 1004	The History Of Women In The United States	
Two additional Social Science courses <sup>1</sup>		6

<sup>1</sup> Once course must meet the Cultural Diversity requirement, and one course must meet the engineering Valuing Skill requirement. Humanities and social sciences electives must meet both the University of Missouri-St. Louis General Education Requirements and the Humanities and Social Sciences Requirements of the Joint Undergraduate Engineering Program. Check with your advisor for details.

## Engineering Core Requirements

J CMP SC 1002	Introduction To Computing Tools: Matlab Skills	1
CMP SCI 1250	Introduction To Computing	3
J E MATH 3170	Engineering Mathematics	4
ENGL 3130	Technical Writing	3
J M ENGR 3200	Thermodynamics <sup>1</sup>	3
J M ENGR 4310/ J E ENGR 4410	Control Systems I <sup>1</sup>	3
J E ENGR 2300	Introduction To Electrical Networks <sup>1</sup>	3
J E ENGR 2330	Electrical And Electronic Circuits Laboratory <sup>1</sup>	3
Total Hours		23

<sup>1</sup> Required for electrical and mechanical engineering majors only.

## Civil Engineering Major Requirements

J C ENGR 2160	Surveying	3
J C ENGR 3410	Structural Analysis	3
J C ENGR 3420	Structural Design	3
J C ENGR 3520	Water and Wastewater Treatment <sup>1</sup>	3
J C ENGR 3360	Civil Engineering Materials Lab	1
J C ENGR 3760	Hydraulic Engineering	3
J C ENGR 4190	Soil Mechanics	3
J C ENGR 4200	Soil Exploration And Testing	1
J C ENGR 4720	Legal Aspects Of Construction	3
J C ENGR 4670	Structure Design Projects	3
J C ENGR 4820	Design of Water Quality Control Facilities <sup>1</sup>	
J C ENGR 4840	Probabilistic Methods in Civil Engineering Design <sup>1</sup>	
J C ENGR 4950	Fundamentals Of Engineering Review	1
J C ENGR 4990	Senior Civil Engineering Seminar	1
J M ENGR 1413	Introduction To Engineering Design: CAD	2
J M ENGR 2410	Mechanics Of Deformable Bodies	3
J M ENGR 3360	Material Science For J C ENGR	3
J M ENGR 3700	Fluid Mechanics	3
J M ENGR 3721	Fluid Mechanics Laboratory	1
Civil Engineering Electives		
J M ENGR 3200	Thermodynamics	3
J E ENGR 2300	Introduction To Electrical Networks	3
J C ENGR 3460	Transportation Engineering	3

J C ENGR 4600	Highway and Traffic Engineering	3
J C ENGR 4640	Foundation Engineering	3

<sup>1</sup> This course will not be offered in 2014-2015. Contact department for more information.

## Electrical Engineering Major Requirements

J E MATH 3260	Probability And Statistics For Engineering	3
(p. 459)		
J E ENGR 2320	Introduction To Electronic Circuits	3
(p. 459)		
J E ENGR 2600	Introduction To Digital Logic And Computer Design	3
(p. 459)		
J E ENGR 3300	Engineering Electro Magnetic Principles	3
(p. 459)		
J E ENGR 3320	Power, Energy And Polyphase Circuits	3
(p. 459)		
J E ENGR 3510	Signals And Systems	3
(p. 459)		
J E ENGR 4350	Electrical Energy Laboratory	3
(p. 459)		
J E ENGR 4980	Electrical Engineering Design Projects	3
(p. 459)		
Electrical Engineering Electives 3000-4990		
Total Hours		24

## Mechanical Engineering Major Requirements

J C ENGR 4950	Fundamentals Of Engineering Review	1
(p. 459)		
J E MATH 3260	Probability And Statistics For Engineering	3
(p. 459)		
J M ENGR 1413	Introduction To Engineering Design: CAD	2
(p. 459)		
J M ENGR 1414	Introduction To Engineering Design: Project	2
(p. 459)		
J M ENGR 2410	Mechanics Of Deformable Bodies	3
(p. 459)		
J M ENGR 3221	Mechanical Design And Machine Elements	4
(p. 459)		
J M ENGR 3250	Material Science For J M ENGR	4
(p. 459)		
J M ENGR 3700	Fluid Mechanics	3
(p. 459)		
J M ENGR 3710	Principles Of Heat Transfer	3
(p. 459)		
J M ENGR 3721	Fluid Mechanics Laboratory	1
(p. 459)		
J M ENGR 3722	Heat Transfer Laboratory	1
(p. 459)		
J M ENGR 4041	Current Topics In Engineering Design	1
(p. 459)		
J M ENGR 4120	Design of Thermal Systems	3
(p. 459)		
J M ENGR 4170	Dynamic Response Of Physical Systems	2
(p. 459)		

J M ENGR 4180	Dynamic Response Laboratory	2
(p. 459)		
J M ENGR 4110	Mechanical Engineering Design Project	4
(p. 459)		
Mechanical Engineering Electives		
Total Hours		39

## Graduation Requirements

In addition to the requirements of the University of Missouri-St. Louis that apply to all candidates for undergraduate degrees, the student must earn a minimum campus grade point average of 2.0 and a minimum grade point average of 2.0 for all engineering courses attempted at the University of Missouri-St. Louis.

## Engineering Design and Engineering Science Requirements

The number of semester hours assigned to each engineering course in the Joint Undergraduate Engineering Program is further divided into hours of engineering design, engineering science, and basic science content. Engineering topics is the sum of engineering science hours and engineering design hours. The following table shows the design hours and engineering science hours for courses in the engineering programs.

Each engineering student must complete a curriculum that contains at least 48 hours of engineering topics semester hours, including all courses: pre-engineering requirements, engineering core requirements, major requirements, and electives. Civil, electrical, and mechanical engineering majors should consult with their advisers to select electives at the 3000 and 4000 level that include sufficient engineering design and engineering science content to produce the required totals. Transfer courses from other institutions do not necessarily have the same engineering science and engineering design content as their equivalents in the UMSL/ Washington University Joint Undergraduate Engineering Program. Students who include transfer courses in their curricula should consult with their advisers to be sure that these requirements are met.

## Sample Four Year Plans

BS Electrical Engineering (p. 461) BS Civil Engineering (p. 462) BS Mechanical Engineering (p. 462)

## Electrical Engineering

### First Year

Fall	HourSpring	Hours
MATH 1800	5 HIST 1001 or 1002	3
CHEM 1111	5 General Education	3
ENGL 1100	3 CHEM 1121	5
ENGR 1010	1 MATH 1900	5
	<b>14</b>	<b>16</b>

### Second Year

Fall	HourSpring	HourSummer	Hours
General Education	3 General Education	3 ENGR 2320	3
PHIL 2259	3 PHIL 3380	3	
PHYSICS 2111	5 PHYSICS 2112	5	
MATH 2000	5 ENGR 2310	3	
	MATH 2020	3	
	<b>16</b>	<b>17</b>	<b>3</b>

### Third Year

Fall	HourSpring	HourSummer	Hours
J E ENGR 2300	3 J E ENGR 3300	3 J E ENGR 3510	3

J CMP SC 1002	1 J E ENGR 2330	3	
CMP SCI 1250	3 J E ENGR 2320	3	
ENGL 3130	3 J M ENGR 3200	3	
J E MATH 3170	4		
	<b>14</b>	<b>12</b>	<b>3</b>
<b>Fourth Year</b>			
<b>Fall</b>	<b>HourSpring</b>	<b>Hours</b>	
J E ENGR 4410	3 J E ENGR Elective	6	
J E ENGR elective	3 J E ENGR 4350	3	
J E ENGR 2600	3 J E ENGR 3320	3	
J E ENGR 3310	3		
	<b>12</b>	<b>12</b>	
<b>Fifth Year</b>			
<b>Fall</b>	<b>Hours</b>		
J E ENGR Elective	3		
MATH 1320	3		
J E ENGR 4980	3		
	<b>9</b>		
Total Hours: 128			

PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.

## Civil Engineering

<b>First Year</b>			
<b>Fall</b>	<b>HourSpring</b>	<b>Hours</b>	
MATH 1800	5 HIST 1001 or 1002	3	
CHEM 1111	5 General Education	3	
ENGL 1100	3 GEOL 1001A	4	
ENGR 1010	1 MATH 1900	5	
	<b>14</b>	<b>15</b>	
<b>Second Year</b>			
<b>Fall</b>	<b>HourSpring</b>	<b>HourSummer</b>	<b>Hours</b>
MATH 2000	5 ENGR 2310	3 ENGR 2320	3
PHYSICS 2111	5 MATH 2020	3	
PHIL 2259	3 PHIL 3380	3	
General Education	General Education	3	
	PHYSICS 2112	5	
	<b>13</b>	<b>17</b>	<b>3</b>
<b>Third Year</b>			
<b>Fall</b>	<b>HourSpring</b>	<b>HourSummer</b>	<b>Hours</b>
J M ENGR 1413	2 J C ENGR 2160	3 J M ENGR 3360	3
J M ENGR 2410	3 J C ENGR 3460	3 J E MATH 3260 or MATH 1320	3
J E MATH 3170	4 J M ENGR 3700	3 J C ENGR 3360	1
J CMP SC 1002	1		
ENGL 3130	3		
	<b>13</b>	<b>9</b>	<b>7</b>
<b>Fourth Year</b>			
<b>Fall</b>	<b>HourSpring</b>	<b>HourSummer</b>	<b>Hours</b>
J C ENGR 3410	3 J C ENGR 3420	3 CMP SCI 1250	3
J C ENGR 4600	3 J C ENGR 4190	3	
J C ENGR 4740	3 J C ENGR 4200	1	
J E ENGR 2300	3		
J M ENGR 3200	3		
J M ENGR 3721	1		
	<b>16</b>	<b>7</b>	<b>3</b>

<b>Fifth Year</b>		
<b>Fall</b>	<b>HourSpring</b>	<b>Hours</b>
J C ENGR 4630	3 J C ENGR 3760	3
J C ENGR 4640	3 J C ENGR 4621	3
J C ENGR 4730	3 J C ENGR 4660	3
J C ENGR 4990	1 J C ENGR 4670	3
	J C ENGR 4950	1
	<b>10</b>	<b>13</b>
Total Hours: 140		

PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor each semester. All requirements are subject to change.

## Mechanical Engineering

<b>First Year</b>			
<b>Fall</b>	<b>HourSpring</b>	<b>Hours</b>	
MATH 1800	5 General Education		
CHEM 1111	5 HIST 1001 or 1002	3	
ENGL 1100	3 CHEM 1121	5	
ENGR 1010	1 MATH 1900	5	
	<b>14</b>	<b>13</b>	
<b>Second Year</b>			
<b>Fall</b>	<b>HourSpring</b>	<b>HourSummer</b>	<b>Hours</b>
PHIL 2259	3 MATH 2020	3 ENGR 2320	3
General Education	3 PHIL 3380	3	
MATH 2000	5 General Education	3	
PHYSICS 2111	5 ENGR 2310	3	
	PHYSICS 2112	5	
	<b>16</b>	<b>17</b>	<b>3</b>
<b>Third Year</b>			
<b>Fall</b>	<b>HourSpring</b>	<b>HourSummer</b>	<b>Hours</b>
J CMP SC 1002	1 J M ENGR 1414	2 J M ENGR 3250	4
J E MATH 3170	4 J M ENGR 2410	3	
J E ENGR 2300	3 CMP SCI 1250	3	
	ENGL 3130	3	
	<b>8</b>	<b>11</b>	<b>4</b>
<b>Fourth Year</b>			
<b>Fall</b>	<b>HourSpring</b>	<b>HourSummer</b>	<b>Hours</b>
J M ENGR 1413	2 J M ENGR 3200	3 J M ENGR 4170	2
MATH 1320	3 J M ENGR 4900	3 J M ENGR 4180	2
J E ENGR 2330	3 J M ENGR 3700	3	
J E MATH 3260	3 J M ENGR 3010	3	
	<b>11</b>	<b>12</b>	<b>4</b>
<b>Fifth Year</b>			
<b>Fall</b>	<b>HourSpring</b>	<b>HourSummer</b>	<b>Hours</b>
J M ENGR 3221	4 J M ENGR 3722	1 J M ENGR 4110	4
J M ENGR 3710	3 J M ENGR 3750	3	
J M ENGR 3721	1 J M ENGR 4120	3	
J M ENGR 4041	1 J C ENGR 4950	1	
J M ENGR 4310	3 J M ENGR elective		
	<b>12</b>	<b>8</b>	<b>4</b>
Total Hours: 137			

PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are



encouraged to meet with their advisor each semester. All requirements are subject to change.

## Engineering Courses

### **ENGR 1010 Introduction To Engineering: 1 semester hour**

Course consists of a series of lectures on engineering, fields of study within engineering, the engineering profession, types of work activities, and professional registration. Introduction to team building and the teamwork approach to projects and problem-solving common in an engineering curriculum and in the engineering profession. Guest lecturers will participate.

### **ENGR 2310 Statics: 3 semester hours**

Prerequisites: MATH 1900 and PHYSICS 2111. Statics of particles and rigid bodies. Equivalent systems of forces. Distributed forces; centroids. Applications to trusses, frames, machines, beams, and cables. Friction. Moments of inertia. Principle of virtual work and applications.

### **ENGR 2320 Dynamics: 3 semester hours**

Prerequisite: ENGR 2310. Review of vector algebra and calculus. Kinematics of a particle. Newton's laws and the kinetics of a particle. Work and energy. Impulse and momentum. Kinematics of rigid bodies. General theorems for systems of particles. Kinetics of rigid bodies. The inertia tensor.

## Joint Civil Engineering Courses

### **J C ENGR 2160 Surveying: 3 semester hours**

Horizontal and vertical control surveys, including traverses, triangulation, trilateration, and leveling; basic adjustments of observations; geologic data; coordinate systems. Basic route surveying, including horizontal and vertical curves.

### **J C ENGR 3360 Civil Engineering Materials Lab: 1 semester hour**

Testing procedures, testing machines, use of laboratory equipment, analysis of data, and presentation of results. Laboratory tests on static tension, compression, bending, and torsion of metal specimens. Tests on wood. Determination of compressive and tensile strengths of concrete. Design of concrete mixes and verification of strength. Experiments in advanced topics in mechanics of materials.

### **J C ENGR 3410 Structural Analysis: 3 semester hours**

Prerequisite: J M ENGR 2410. A review of the calculation of reactions, shear, and bending moment. Definition, construction and use of influence lines. Deflections for statically determinate structures using the work method. Analysis of statically indeterminate trusses using the method of consistent deformations. Analysis of continuous beams and planar frames using the consistent deformation, slope-deflection and moment distribution methods. The influence of span on strength, stability, and economy of structures. An introduction to structural analysis software.

### **J C ENGR 3420 Structural Design: 3 semester hours**

Prerequisites: J M ENGR 3250, J C ENGR 3410. Fundamentals of structural design in steel, reinforced concrete, and timber. Familiarization with the sources of various design codes and practice in interpreting them. Computer graphics applications.

### **J C ENGR 3460 Transportation Engineering: 3 semester hours**

Fundamental treatment of the planning, engineering, design, and procedural aspects of multimodal transportation are covered. Intermodal freight and urban transportation planning processes and overview of environmental, energy, and economic issues are discussed.

### **J C ENGR 3760 Hydraulic Engineering: 3 semester hours**

Prerequisites: J M ENGR 3700. The principles of open channel flow will be discussed and illustrated with practical examples. Methods for channel design, storm sewer, culvert and bridge analysis will be presented using the concepts of gradually-varied, steady flow. A design project using computerized analysis and design is used to implement concepts in a large practical application.

### **J C ENGR 4000 Independent Study: 1-6 semester hours**

Prerequisites: Junior standing and consent of faculty advisor Independent investigation of a civil engineering topic of special interest to a student performed under the direction of a faculty member.

### **J C ENGR 4190 Soil Mechanics: 3 semester hours**

Prerequisite: J M ENGR 2410, J M ENGR 3700 Basic geology as it relates to index and classification properties of soil. Exploration, sampling, and testing techniques. Soil classification systems. clay minerals and soil structures. Compaction and stabilization. Capillary, shrinkage, swelling, and frost action in soils. Effective stress, permeability, seepage, and flow nets. Consolidation and consolidation settlements. stresses in soil. Time rate of consolidation. Mohr's circle, stress path, and failure theories. Shearing strength of sand and clays.

### **J C ENGR 4200 Soil Exploration And Testing: 1 semester hour**

Prerequisite: J C ENGR 4190 (may be taken concurrently). Soil exploration; in-situ soil testing, laboratory testing of soil; processing of test data using a microcomputer; statistical analysis of test data; use of test results in the decision-making process.

### **J C ENGR 4600 Highway and Traffic Engineering: 3 semester hours**

Prerequisites: J C ENGR 2160 and Senior Standing Study of basic highway design and traffic circulation principles. Study of design elements of alignment, profile, crosssection, intersection types, interchange types, and controlled access highways. Investigation of functional highway classification. Traffic volume, delay and accident studies. Analysis of highway capacity of uninterrupted flow, interrupted flow. Freeway, ramp and weaving sections.

### **J C ENGR 4620 Transportation Planning: 3 semester hours**

Prerequisites: Senior standing. Course will cover the following fundamentals of multimodal transportation planning, urban study components, including design and organization, origin-destination analysis, traditional traffic model processes of trip generation, distribution and assignment, urban transportation entity analysis (shopping centers, terminals, etc.) state and regional study components, including state and national needs and capital improvement programs, regional funding capabilities and related national transportation policy and legislative acts.

### **J C ENGR 4621 Traffic Operations and Analysis: 3 semester hours**

Prerequisites: Senior Standing. Study of traffic system operations and analysis, microsimulation modeling, interchange types, and the fundamentals of highway signing and marking. Introduction into transportation analysis project management. Analysis and design techniques focus on microsimulation modeling and the Manual of Uniform Traffic Control Devices. Material learned is integrated into a major design project.

### **J C ENGR 4630 Design Of Steel Structures: 3 semester hours**

Prerequisites: J C ENGR 3410, J C ENGR 3420. Behavior and design of steel frames by "allowable stress" and "maximum strength" based on deterministic and LRFD (Load-resistance factor design) methods. Design of beams, columns, beam-columns, plate girders, connections, multistory frames, and bridge girders, Torsional design of steel structures. Plastic analysis and design of steel structures. Miscellaneous topics in structural steel construction and design.

**J C ENGR 4640 Foundation Engineering: 3 semester hours**

Prerequisites: J C ENGR 3420, J C ENGR 4190, J C ENGR 4200

Principal problems in design and construction of foundations for bridges and buildings. Bearing capacity of deep and shallow foundations; pressure on retaining walls and shallow foundations; pressure on retaining walls and slope stability; modern developments in piling, cofferdams, open caissons, pneumatic caissons.

**J C ENGR 4660 Advanced Design Of Concrete Structures: 3 semester hours**

Prerequisites: J M ENGR 3250, J C ENGR 3410, J C ENGR 3420.

Flexural behavior and design, strength and deformation of rectangular and nonrectangular sections, shear strength, beamcolumns, long columns, slab systems, design of frames, and footings will be covered.

**J C ENGR 4670 Structure Design Projects: 3 semester hours**

Prerequisite: Permission of instructor. Students carry out the complete design of typical and unusual building and bridge structures. Use of the computer as a design tool is emphasized. Projects are conducted in cooperation with production engineers.

**J C ENGR 4720 Legal Aspects Of Construction: 3 semester hours**

Prerequisite: Junior standing or permission of instructor. A survey of the legal problems of the construction manager. Including but limited to, liability in the areas of contracts, agency, torts, insurance, bad judgement and oversight.

**J C ENGR 4730 Construction Operations And Management: 3 semester hours**

Prerequisite: Junior standing. The construction industry, its development, components, and organization. Contracting methods. Applications and limitations. Selection of equipment using production analysis and economics. Field engineering, including form design, shoring, embankment design. Purchasing and change orders. Safety and claims.

**J C ENGR 4740 Economic Decisions In Engineering: 3 semester hours**

Prerequisite: Junior standing. Principles of economics involved in engineering decisions. Decisions between alternatives based on the efficient allocation of resources. Topics include the time element in economics, analytical techniques for economy studies, and taxes.

**J C ENGR 4830 Fundamentals of Surface Water Hydrology and Environmental Engineering: 3 semester hours**

Prerequisites: Fluid Mechanics and senior status Bulletin description: The principles of the hydrologic cycle including precipitation, evaporation, transpiration, infiltration, runoff, streamflow, and groundwater will be discussed and illustrated. In addition, computational fundamentals of hydrologic analysis will be presented such as unit hydrographs, routing, data analysis, and flood frequency. Elements of quantitative problems in urban stormwater systems and management, water quality and urbanization. Concepts of sustainability and green engineering such as low impact development and other best management practices will be presented. Computer software will be utilized.

**J C ENGR 4910 Water Hydrology and Hydraulic Design Project: 3 semester hours**

Prerequisites: J M ENGR 3700 Fluid Mechanics, J C ENGR 3760 Hydraulic Engineering, and J C ENGR 4830 Fundamentals of Surface Water Hydrology and Environmental Engineering. This course is designed to provide seniors in Hydrology and Hydraulics with a major design/facility plan project. The principals of hydrologic and hydraulic design will be utilized in developing the hydrology, hydraulics and floodplain analysis for a local watershed or land area. Hydrologic analysis is performed to size hydraulic systems and evaluate watershed and floodplain performance. The course is structured to apply hydrologic theory and modeling techniques to engineering hydrology and hydraulics for watershed analysis, floodplain delineation, and urban stormwater. The student will also consider the next generation of hydrologic computation, watershed evaluation and the importance of severe storm impacts and flood management. Consideration of sustainability and green infrastructure practices will also be included. A final written report and class presentation of the design project is included.

**J C ENGR 4950 Fundamentals Of Engineering Review: 1 semester hour**

Prerequisite: Senior Standing The topics found in most engineer-in-training exams will be reviewed and illustrated using examples. A discussion of the importance of licensin exams and the strategies for taking these exams will be discussed. The main topics for the review include: engineering mathematics, basic chemistry, engineering mechanics, engineering economics, thermodynamics, electrical circuits, and material science.

**J C ENGR 4990 Senior Civil Engineering Seminar: 1 semester hour**

Prerequisite: Senior standing. Students will research assigned topics of importance to graduates entering the Civil Engineering profession and prepare oral presentations and a written report. Student presentations will be augmented by lectures from practicing professionals. Topics include professional registration, early career development, graduate study, effective presentations, construction quality, and case histories of civil engineering projects.

## Joint Computer Science Courses

**J CMP SC 1002 Introduction To Computing Tools: Matlab Skills: 1 semester hour**

This course is aimed at the acquisition of MATLAB skills through hands-on familiarization and practice. Students practice the array, vector, and meshgrid representations, programming and plotting, and apply these skills to solve numerical problems and generate reports. (J CMP SC 1002 and CMP SCI 1250 can substitute for J CMP SC 1360).

## Joint Electrical Engineering Courses

**J E ENGR 2300 Introduction To Electrical Networks: 3 semester hours**

Elements, sources, and interconnects. Ohm's and Kirchoff's laws, superposition and Thevenin's theorem; the resistive circuit, transient analysis, sinusoidal analysis, and frequency response.

**J E ENGR 2320 Introduction To Electronic Circuits: 3 semester hours**

Prerequisites: J E ENGR 2300 Introduction to contemporary electronic devices and their circuit applications. Terminal characteristics of active semiconductor devices. Incremental and D-C models of junction diodes, bipolar transistor (BJTs), and metal-oxide semiconductor field effect transistors (MOSFETs) are developed and used to design single- and multi-stage amplifiers, Models of the BJT and MOSFET in cutoff and saturation regions are used to design digital circuits.

**J E ENGR 2330 Electrical And Electronic Circuits Laboratory: 3 semester hours**

Prerequisites: J E ENGR 2300 Lectures and laboratory exercises related to sophomore topics in introductory networks and basic electronics.

**J E ENGR 2600 Introduction To Digital Logic And Computer Design: 3 semester hours**

Prerequisite: J CMP SC 1260. Digital computers and digital information-processing system; Boolean algebra, principles and methodology of logical design; machine language programming; register transfer logic; microprocessor hardware, software, and interfacing; fundamental of digital circuits and systems; computer organization and control; memory systems; arithmetic unit design. Occasional laboratory exercises.

**J E ENGR 3300 Engineering Electro Magnetic Principles: 3 semester hours**

Electromagnetic theory as applied to electrical engineering; vector calculus; electrostatics and magnetostatics; Maxwell's equations, including Poynting's theorem and boundary conditions; uniform plane-wave propagation; transmission lines-TEM modes, including treatment of general, lossless line, and pulse propagation; introduction to guided waves; introduction to radiation and scattering concepts.

**J E ENGR 3310 Electronics Laboratory: 3 semester hours**

Prerequisites: J E ENGR 2300, J E ENGR 2330. Laboratory exercises for juniors covering topics in computeraided measurements, computer simulation, and electronic circuits.

**J E ENGR 3320 Power, Energy And Polyphase Circuits: 3 semester hours**

Prerequisite: J E ENGR 2300. Fundamental concepts of power and energy; electrical measurements; physical and electrical arrangement of electrical power systems; polyphase circuit theory and calculations; principle elements of electrical systems such as transformers, rotating machines, control, and protective devices, their description and characteristics; elements of industrial power system design.

**J E ENGR 3360 Principles Of Electronic Devices: 3 semester hours**

Introduction to the solid-state physics of electronic materials and devices, including semiconductors, metals, insulators, diodes and transistors, Crystals growth technology and fundamental properties of crystals. Electronic properties and band structure of electronic materials, and electron transport in semiconductor materials. Fabrication of pn junction diodes, metal-semiconductor junctions, and transistors and integratedcircuit chips. Fundamental electrical properties of rectifying diodes and light-emitting diodes, bipolar transistors and field effect transistors. Device physics of diodes and transistors, large-signal electrical behavior and high-frequency properties.

**J E ENGR 3370 Electronic Devices And Circuits: 3 semester hours**

Prerequisites: J E ENGR 2320. Introduction to semiconductor electronic devices: transistors and diodes. Device electrical DC and high-frequency characteristics. Bipolar transistors, field-effect transistors for analog electronics applications. Transistors fabrication as discrete devices and as integrated-circuit chips. Large-signal analysis of transistor amplifiers: voltage gain, distortion, input resistance and output resistance. Analysis of multitransistor amplifiers: Darlington, Cascode, and coupled-pair configurations. Half-circuit concepts, differential-mode gain, common-mode gain, and differential-to-single-ended conversion. Transistor current sources, active loads, and power-amplifier stages. Applications to operational amplifiers and feedback circuits.

**J E ENGR 3510 Signals And Systems: 3 semester hours**

Prerequisites: J E ENGR 2300 and J E MATH 3170. Elementary concepts of continuous-time and discrete-time signals and systems. Linear time-invariant (LTI) systems, impulse response, convolution, Fourier series, Fourier transforms, and frequency-domain analysis of LTI systems. Laplace transforms, Z-transforms, and rational function descriptions of LTI systems. Principles of sampling and modulation. Students participate weekly in recitation sections to develop oral communications skills using class materials.

**J E ENGR 3610 Introduction To Systems Software: 3 semester hours**

Prerequisites: CMP SCI 1250. Introduction to the hardware and software foundations of computer processing systems. Examines the process whereby computer systems manage, interpret, and execute applications. Covers fundamental algorithms for numerical computation, memory organization and access, storage allocation, and the sequencing and control of peripheral devices. Weekly laboratories, exercises, and a final laboratory project.

**J E ENGR 3620 Computer Architecture: 3 semester hours**

Prerequisite: J E ENGR 2600. Study of interaction and design philosophy of hardware and software for digital computer systems: Machine organization, data structures, I/O considerations. Comparison of minicomputer architectures.

**J E ENGR 4000 Independent Study: 1-3 semester hours**

Prerequisites: Senior in Good Standing. Opportunities to acquire experience outside the classroom setting and to work closely with individual members of the faculty. A final report must be submitted to the department. Open as a senior elective only. Hours and credit to be arranged. Credit variable, maximum credit per semester 3 hours. Maximum program total credit 3 hours.

**J E ENGR 4050 Reliability And Quality Control: 3 semester hours**

Prerequisites: J E MATH 3260 or MATH 1320. An integrated analysis of reliability and quality control function in manufacturing. Statistical process control, analysis, reliability prediction, design, testing, failure analysis and prevention, maintainability, availability, and safety are discussed and related. Qualitative and quantitative aspects of statistical quality control and reliability are introduced in the context of manufacturing.

**J E ENGR 4340 Solid State Power Circuits And Applications: 3 semester hours**

Prerequisite: J E ENGR 2320, J E ENGR 3510. Study of the strategies and applications of power control using solid-state semiconductor devices. Survey of generic power electronic converters. Applications to power supplies, motor drives, and consumer electronics. Introduction to power diodes, thyristors, and MOSFETs.

**J E ENGR 4350 Electrical Energy Laboratory: 3 semester hours**

Prerequisites: J E ENGR 2330. Experimental studies of principles important in modern electrical energy systems. Topics: power measurement, transformers, batteries, static frequency converters, thermoelectric cooling, solar cells, electrical lighting, induction, commutator, and brushless motors, synchronous machines.

**J E ENGR 4360 Energy Alternatives: 3 semester hours**

Prerequisites: J E ENGR 2300, or J M ENGR 3200. This course introduces engineering analyses of the human uses of energy. Both non-renewable (e.g., oil, natural gas, coal, nuclear) and sustainable (e.g., hydropower, solar, wind, biomass) resources are covered. Topics include the engineer's role in harvesting, production, storage, conversion, delivery, and uses of energy. Students will learn system analysis, design, integration, optimization, and operational aspects of selected resources delivery systems, and end uses. Technical content will include site selection, conversion and delivery efficiency calculations, engineering economic analyses, control systems, and energy resource systematic classification. Measure will consist of a mix of homework, quizzes, tests, class participation, and projects.

**J E ENGR 4410 Control Systems I: 3 semester hours**

Same as J M ENGR 4310. Prerequisites: J E MATH 3170, J E ENGR 2300. Introduction to automatic control concepts. Block diagram representation of single and multiloop systems. Multi-input and multi-output systems. Control system components. Transient and steady-state performance; stability analysis; Routh, Nyquist, Bode, and root locus diagrams. Compensation using lead, lag and lead-lag networks. Synthesis by Bode plots and root-locus diagrams. Introduction to state-variable techniques, state-transition matrix, state-variable feedback.

**J E ENGR 4520 Power Systems Analysis: 3 semester hours**

Prerequisite: J E ENGR 3320. Introduction to the modeling and elements of power systems; machines, lines, and loads; load flow methods and applications; short circuit analysis using symmetrical components on symmetrical and unsymmetrical faults; methods of economic operation of power systems and contingency; state estimators, stability, and introduction of the independent system operator.

**J E ENGR 4630 Digital Integrated Circuit Design And Architecture: 3 semester hours**

Prerequisites: J E ENGR 2320 and J E ENGR 3620. Brief review of device characteristics important to digital circuit operation, allowed by detailed evaluation of steady-state and transient behavior of logic circuits. Implications of and design techniques for very large-scale integrated circuits including architecture, timing, and interconnection. Students must complete detailed design and layout of a digital circuit. Major emphasis on MOS digital circuits with some comparisons to other technologies.

**J E ENGR 4710 Communications Theory And Systems: 3 semester hours**

Prerequisites: J E ENGR 3510 and J E MATH 3260. Introduction to the concepts of transmission of information via communication channels. Amplitude and angle modulation for the transmission of continuous-time signals. Analog-to-digital conversion and pulse code modulation. Transmission of digital data. Introduction to random signals and noise and their effects on communication. Optimum detection systems in the presence of noise. Elementary information theory. Overview of various communication technologies such as radio, television, telephone networks, data communication, satellites, optical fiber, and cellular radio.

**J E ENGR 4720 Internet Communications: 3 semester hours**

This course will introduce and cover the architecture, protocols, security, and quality of service (QoS) of Internet Communications. Starting with the design principles and architecture of the Internet, communication applications such as Voice over IP (VoIP), video conferencing, and presence and instant messaging will be covered. Protocols developed by the Internet Engineering Task Force (IETF) including IP, TCP, UDP, DNS, SIP, XMPP, and ENUM will be studied. Latest areas of research including the Service Oriented Architecture (SOA) and peer-to-peer (P2P) architectures for Internet Communications will be covered.

**J E ENGR 4820 Digital Signal Processing: 3 semester hours**

Prerequisite: J E ENGR 3510. Introduction to analysis and synthesis of discrete-time linear time-invariant (LTI) systems. Discrete-time convolution, discrete-time Fourier transform, Z-transform, rational function descriptions of discrete-time LTI systems. Sampling, analog-to-digital conversion and digital processing of analog signals. Techniques for the design of finite impulse response (FIR) and infinite impulse response (IIR) digital filters. Hardware implementation of digital filters and finite register effects. The discrete Fourier transform and the fast Fourier transform (FFT) algorithm.

**J E ENGR 4980 Electrical Engineering Design Projects: 3 semester hours**

Prerequisites: Senior standing. Working in teams, students address design tasks assigned by faculty. Each student participates in one or more design projects in a semester. Projects are chosen to emphasize the design process, with the designer choosing one of several paths to a possible result. Collaboration with industry and all divisions of the university is encouraged.

**Joint Engineering Mathematics Courses****J E MATH 3170 Engineering Mathematics: 4 semester hours**

Prerequisite: MATH 2020 or equivalent. The Laplace transform and applications; series solutions of differential equations, Bessel's equation, Legendre's equation, special functions; matrices, eigenvalues, and eigenfunctions; Vector analysis and applications; boundary value problems and spectral representation; Fourier series and Fourier integrals; solution of partial differential equations of mathematical physics.

**J E MATH 3260 Probability And Statistics For Engineering: 3 semester hours**

Prerequisites: MATH 2000. Study of probability and statistics together with engineering applications. Probability and statistics: random variables, distribution functions, density functions, expectations, means, variances, combinatorial probability, geometric probability, normal random variables, joint distribution, independence, correlation, conditional probability, Bayes theorem, the law of large numbers, the central limit theorem. Applications: reliability, quality control, acceptance sampling, linear regression, design and analysis of experiments, estimation, hypothesis testing. Examples are taken from engineering applications. This course is required for electrical and mechanical engineering majors.

**Joint Mechanical Engineering Courses****J M ENGR 1413 Introduction To Engineering Design: CAD: 2 semester hours**

An introduction to engineering design in the context of mechanical engineering. Students learn the fundamentals of spatial reasoning and graphical representation. Freehand sketching, including pictorial and orthographic views, are applied to the design process. Computer modeling techniques provide accuracy, analysis, and visualization tools necessary for the design of devices and machines. Topics in detailing design for production, including fasteners, dimensioning, tolerancing, and creation of part and assembly drawings are also included.



**J M ENGR 1414 Introduction To Engineering Design: Project: 2 semester hours**

An introduction to engineering design in the context of mechanical engineering. Students first complete a series of experiments that introduce physical phenomena related to mechanical engineering. Understanding is achieved by designing and building simple devices and machines. The course proceeds to a design contest in which the students design and build from a kit of parts a more significant machine that competes in a contest held at the end of the course. The course is open to all and is appropriate for anyone interested in mechanical devices, design, and the design process.

**J M ENGR 2410 Mechanics Of Deformable Bodies: 3 semester hours**

Prerequisites: MATH 1900 and ENGR 2310. Normal and shear stresses and strains. Stress-strain diagrams. Hooke's law and elastic energy. Thermal stresses. Stresses in beams, columns, torsional members, and pressure vessels. Elastic deflection of beams and shafts. Statically indeterminate structures. Mohr's circle of stress. Stability concepts.

**J M ENGR 3010 Computer Aided Design: 3 semester hours**

Prerequisite: J M ENGR 1413. Computer aided design, analysis and optimization of parts and assemblies; solid modeling of complex surfaces, creation of detail drawings, dimensioning and tolerancing; assembly modeling, assembly constraints, interference checking; motion constraints, force and acceleration analysis, thermal analysis; part optimization for weight, strength and thermal characteristics using Unigraphics software.

**J M ENGR 3200 Thermodynamics: 3 semester hours**

Prerequisites: MATH 1900, CHEM 1111 and PHYSICS 2111. Classical thermodynamics; thermodynamic properties; work and heat; first and second laws. Entropy, irreversibility, availability. Application to engineering systems.

**J M ENGR 3221 Mechanical Design And Machine Elements: 4 semester hours**

Prerequisites: J M ENGR 1414, J M ENGR 1415, J M ENGR 2410, J E MATH 3170. Provides a thorough overview of the steps in the engineering design process and introduces analytical/quantitative techniques applicable to each step. Topics include recognition of need, specification formulation, concept generation, concept selection, embodiment, and detail design. Includes an introduction to several classes of machine elements such as bearings, gears, belts, and springs. Underlying analytical model of the machine elements are presented along with guidelines about designing and choosing such elements for practical applications. A case study from industry will emphasize how the steps of the design process were done as well as the rationale for choosing particular machine elements.

**J M ENGR 3250 Material Science For J M ENGR: 4 semester hours**

Prerequisites: CHEM 1111. Introduces the chemistry and physics of engineering materials. Emphasis on atomic and molecular interpretation of physical and chemical properties, the relationships between physical and chemical properties, and performance of an engineering material.

**J M ENGR 3360 Material Science For J C ENGR: 3 semester hours**

Same as J M ENGR 3250, but without the lab. Prerequisite: CHEM 1111. Introduces the chemistry and physics of engineering materials. Emphasis on atomic and molecular interpretation of physical and chemical properties, the relationships between physical and chemical properties, and performance of an engineering material.

**J M ENGR 3700 Fluid Mechanics: 3 semester hours**

Prerequisites: J E MATH 3170 and ENGR 2320. Fundamental concepts of fluids as continua. Viscosity. Flow field: velocity, vorticity, streamlines. Fluid statics: hydrostatic forces manometers. Conservation of mass and momentum. Incompressible inviscid flow. Dimensional analysis and similitude. Flow in pipes and ducts. Flow measurement. Boundary-layer concepts. Flow in open channels.

**J M ENGR 3710 Principles Of Heat Transfer: 3 semester hours**

Prerequisites: J M ENGR 3200, J M ENGR 3700 and J E MATH 3170. Introductory treatment of the principles of heat transfer by conduction, convection, or radiation. Mathematical analysis of steady and unsteady conduction along with numerical methods. Analytical and semiempirical methods of forced and natural convection systems. Heat exchangers: LMTD and e-NTU analysis. Boiling and condensation heat transfer. Radiation between blackbody and real surfaces. Radiation network analysis.

**J M ENGR 3721 Fluid Mechanics Laboratory: 1 semester hour**

Prerequisites: J M ENGR 3700 Physical laboratory exercises focusing on fluid properties and flow phenomena covered in J M ENGR 3700. Calibration and use of a variety of equipment; acquisition, processing, and analysis of data by manual as well as automated methods.

**J M ENGR 3722 Heat Transfer Laboratory: 1 semester hour**

Prerequisites: J M ENGR 3721 and J M ENGR 3710. Physical laboratory exercises, including some numerical simulations and computational exercises, focusing on heat-transfer phenomena covered in J M ENGR 3710. Calibration and use of variety of laboratory instrumentation; acquisition, processing, and analysis of data by manual as well as automated methods; training in formal report writing.

**J M ENGR 3750 Fluid Control and Power Systems Theory And Practice: 3 semester hours**

Prerequisite: J M ENGR 3700. Topics to be covered include: design of hydraulic and pneumatic control and power systems using advanced concepts and analytical tools; analysis of fluid flow through small orifices and between parallel and inclined planes; theory of spool and flapper valves; physical configuration of practical components: pumps, motors, fluid lines and valves, accumulators and storage devices; integration of components into practical systems, development of realistic performance diagrams using MATLAB Simulink; application of performance diagrams in design and analysis of fluid power systems.

**J M ENGR 4000 Independent Study: 3 semester hours**

Prerequisites: Junior standing and consent of faculty advisor Independent investigation of a mechanical engineering topic of special interest to a student performed under the direction of a faculty member.

**J M ENGR 4041 Current Topics In Engineering Design: 1 semester hour**

Case studies of engineering failures, class discussion & short written papers are used to illustrate and stress the importance of engineering teamwork, ethics, and professional standards within the mechanical engineering discipline. Working in teams students develop and present a case study on a topic of their choice. Guest lecturers introduce contemporary topics such as product liability, environmental regulations, green design, appropriate technologies, and concurrent engineering.

**J M ENGR 4110 Mechanical Engineering Design Project: 4 semester hours**

Prerequisites: J M ENGR 3221. Feasibility study of an open-ended, original design or a creative redesign of a mechanical component or system requiring the application of engineering science principles. Feasibility is subject to economic, safety, legal, environmental, ethical, aesthetic, and other constraints in a competitive manufacturing environment. Project teams perform the detailed design and optimization of the concept developed in the feasibility study. Presentations and reports with manufacturing drawings and prototypes are completed by each team.

**J M ENGR 4120 Design of Thermal Systems: 3 semester hours**

Prerequisites: Senior Standing. Analysis and design of advanced thermo-fluid systems. Student teams participate in the design process which could involve research, design formulation, codes, standards, engineering economics, a design project report, and formal presentations. Topics include: thermal-fluid systems and components, such as power, heating, and refrigeration systems, pumps, fans, compressors, combustors, turbines, nozzles, coils, heat exchangers and piping.

**J M ENGR 4170 Dynamic Response Of Physical Systems: 2 semester hours**

Prerequisites: ENGR 2320 and J E MATH 3170, J M ENGR 4170 and J M ENGR 4180 must be taken in the same semester. Free and forced vibration of mechanical systems with lumped inertia, springs, and dampers. Methods of Laplace transform, complex harmonic balance, and Fourier series. Electrical analogs. Introduction to Lagrange's equations of motion and matrix formulations. Transient response of continuous systems by partial differential equations, by rayleigh methods, and by lumped parameters.

**J M ENGR 4180 Dynamic Response Laboratory: 2 semester hours**

PREREQUISITES: J M ENGR 4170 and J M ENGR 4180 must be taken during the same semester. Laboratory problems focusing on materials covered in J M ENGR 4170.

**J M ENGR 4250 Material Selection In Engineering Design: 3 semester hours**

PREREQUISITES: Senior standing. Analysis of the scientific bases of material behavior in the light of research contributions of the last 20 years. Development of a rational approach to the selection of materials to meet a wide range of design requirements for conventional and advanced applications. Although emphasis will be placed on mechanical properties, other properties of interest in design will be discussed, e.g., acoustical, optical and thermal.

**J M ENGR 4310 Control Systems I: 3 semester hours**

Same as J E ENGR 4410. Prerequisites: J E MATH 3170, J E ENGR 2300. Introduction to automatic control concepts. Block diagram representation of single and multi-loop systems. Multi-input and multi-output systems. Control system components. Transient and steady-state performance; stability analysis; Routh, Nyquist, Bode, and root locus diagrams. Compensation using lead, lag, and lead-lag networks. Synthesis by Bode plot plots and root-locus diagrams. Introduction to state-variable techniques, state transition matrix, state-variable feedback.

**J M ENGR 4440 Solar Energy: 3 semester hours**

Prerequisites: J M ENGR 3200, J M ENGR 3700, and J M ENGR 3710. This course will cover the following topics: extraterrestrial solar radiation; solar radiation on the earth's surface; weather bureau data; review of selected topics in heat transfer; methods of solar energy collection including flat panel and concentrating collectors; solar energy storage; transient and long-term solar system and performance.

**J M ENGR 4630 Nanotechnology: Concepts And Applications: 3 semester hours****J M ENGR 4700 Sustainable Environmental Building Systems: 3 semester hours**

Sustainable design of building lighting and HVAC systems considering performance, life-cycle cost and downstream environmental impact. Criteria, codes and standards for comfort, air quality, noise/vibration and illumination. Life cycle and other investment methods to integrate energy consumption/conservation, utility rates, initial cost, system/component longevity, maintenance cost and building productivity. Direct and secondary contributions to acid rain, global warming and ozone depletion.

**J M ENGR 4810 HVAC Analysis and Design I: 3 semester hours**

PREREQUISITES: Senior standing. Moist air properties and the psychrometric chart. Classic moist air processes and design procedures for heating and cooling systems. Design of heating, ventilating, and air conditioning systems for indoor environmental comfort and health. Basics of heat transfer in building structures. Solar radiation effects on building heat transfer. Calculation procedures for the analysis of heating and cooling loads in buildings.

**J M ENGR 4820 HVAC Analysis and Design II: 3 semester hours**

PREREQUISITES: Senior standing. Energy calculations to estimate the quantity of energy needed to heat and cool building structures. Fundamentals of incompressible flow, basics of centrifugal pump performance, and design procedures for water piping systems. Space air diffuser design to assure that temperatures, humidities, and air velocities within occupied spaces are acceptable. Air duct design and fan analysis for optimally distributing air through building air duct systems. Performance analysis of refrigeration systems, including the effects of pressure losses and heat transfer. Direct contact heat and mass transfer.

**J M ENGR 4900 Engineering Project Management: 3 semester hours**

Basic fundamentals and advanced concepts of engineering project management applicable to projects and programs, both large and small. Project management skills, techniques, systems, software and application of management science principles will be covered and related to research, engineering, architectural, and construction projects from initial evaluations through approval, design, procurement, construction and startup.

# School of Professional and Continuing Studies

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As the region's only public research university, UMSL serves students who are in many ways nontraditional in their demographic makeup, their approach to higher education, and their educational needs. Meeting the needs of these nontraditional students while extending the expertise of the university to the community is the mission of the School of Professional & Continuing Studies (PCS).

Through PCS, the university's colleges, schools, and centers administer a wide variety of credit courses, noncredit programs, and problem-oriented research for the benefit of the greater St. Louis metropolitan area and beyond. Programs are offered both on and off campus and online. Research, generally of an applied, urban-related nature, is designed to solve specific problems of client groups.

## Arts and Sciences

In partnership with the College of Arts and Sciences, PCS offers credit courses and noncredit programs that reflect departmental disciplines in humanities, social sciences, and natural sciences. The array of educational programs includes archaeology, fiction and nonfiction writing, foreign languages, preparation for MCAT and LSAT, interdisciplinary conferences, study tours, and continuing education for social workers.

The **Center for Entrepreneurship & Economic Education** promotes the understanding of economics, personal finance, and entrepreneurship through education and outreach to children and adults. The Center offers credit and noncredit professional development for educators, educational programs for students, and other learning programs for the community. The Center also develops educational resources and provides consulting to educational institutions and nonprofit organizations.

The **Advanced Credit Program** provides an enrichment experience for university-bound secondary students by offering freshman-level courses for college credit in selected high schools.

The **SUCCEED** program is a post-secondary program for people with intellectual and developmental disabilities ages 18 through 25 years. Program participants can earn a Chancellor's Certificate by completing the two-year residential program.

## Business Administration

PCS credit and noncredit programs through the College of Business Administration are offered in several areas, including financial planning, human resource management, and customized courses designed to meet individual client needs. Certificate programs are offered, as well as preparatory courses for professional certification programs in financial planning and human resources. CoBA's newest certificate program is the Digital Media Marketing Certificate, which offers marketers a chance to amplify their skills in the digital world by learning social media, web analytics, mobile marketing, media buying and more.

## Education

The College of Education, which is accredited by the Council for the Accreditation of Educator Preparation (CAEP) for the preparation of teachers, counselors, and administrators, offers an array of graduate and doctoral programs. Through the university's School of Professional & Continuing Studies, courses and programs are offered for both

practitioners and those considering the field of education as a career. Many credit courses are available at sites throughout the metropolitan area, and professional development conferences and institutes are specially designed to help practitioners stay current in their fields of study. Programs also can be tailored to meet the specific needs of groups or organizations and can be offered on-site or at other convenient places and times.

The **Transition to Teaching Program** provides a special certification route for individuals who currently hold bachelor degrees and who want to enter the teaching profession. The program is job-embedded and individuals work full-time in classrooms while taking their certification coursework.

The **Collabibat**, a hub for education innovation, is a unique space that brings together practitioners from all education sectors, university faculty and researchers, new and bold education innovators, and leaders from diverse fields. Serving as an incubator and co-working space as well as a flexible space for professional development, the Collabibat offers credit and noncredit courses as well as consulting and facilitation services. Professional development will not be the typical "sit and get" format. Design thinking and bias toward action is integral to Collabibat programming.

The College of Education is the academic partner for the **Teach for America** program in the St. Louis and Kansas City regions. This program offers coursework toward Missouri teacher certification as well as opportunities to concurrently obtain a Master of Education degree. Admittance is done through the national and regional Teach for America offices, and admittance to the UMSL Graduate School.

## Fine Arts and Communication

PCS works with the College of Fine Arts and Communication to offer a variety of high-quality credit and noncredit programs in the visual arts, performing arts, and communications. These programs are designed to enhance knowledge, celebrate community, and strengthen connections with regional cultural institutions such as MADCO (Modern American Dance Company), Opera Theatre of Saint Louis, and Notifi Records. CoFAC's newest programs include the Certificate in Digital Photography and the Certificate in Audio Recording, which is designed to prepare participants to develop technical skills related to the production of high-quality sound recordings.

## Graduate School and Public Policy Administration

The Nonprofit Management & Leadership Program offers comprehensive education and training for professional staff, board members, and other leaders of nonprofit and voluntary organizations, as well as students and others wishing to explore a future in the field. Through PCS, the program offers noncredit seminars, workshops, and conferences, both on and off campus.

## Nursing

The College of Nursing offers an RN-BSN program that provides a seamless articulation to facilitate obtaining the BSN degree for registered nurses on campus, online and off campus each semester. Currently, the college offers the RN-BSN courses at the University of Missouri-St. Louis, St. Charles Community College, Forest Park Community College, West County Continuing Education Center and Mercy Hospital in St. Louis. The

MSN/FNP Program is offered at various outreach sites, depending on interest.

## **Optometry**

The College of Optometry offers COPE-approved advanced higher education programs that meet the requirements of state boards for individual relicensing. The dissemination of research data along with interactive panel programs of discussions of current issues are developed to advance clinical vision care.

## **Off-Campus Sites**

PCS offers credit courses leading to degree completion at various metropolitan sites, including St. Charles Community College, Mineral Area College, Jefferson College, St. Louis Community College South County Education and University Center, and St. Louis Community College at Wildwood and at Forest Park.

## **Computer Education & Training Center**

The Computer Education & Training Center develops and teaches applied computer courses that provide students the computer skills necessary to meet current and future technological challenges in the workplace. Classes cover a wide range of topics to meet a variety of skill levels and interests, while new courses are developed that address specific educational needs in the community. To help individuals explore a new career, update current computer knowledge, or demonstrate skills to current or future employers, the CETC offers 11 specialized Chancellor's Certificates.

## **Creating Whole Communities**

Creating Whole Communities is a partnership of UMSL, MU Extension, and our region's neighborhoods. This partnership aims to connect university resources, including research, expertise, and training, with the needs and priorities of residents and communities in the St. Louis region. Creating Whole Communities sponsors seminars, forums and conferences; convenes teams to respond to key urban issues; develops research and practice resources on critical community issues; and provides partnership opportunities for faculty, students and communities.

## **J.C. Penney Conference Center**

This large conference facility at UMSL houses a 435-seat auditorium, as well as six large and three small conference rooms, designed to provide an excellent academic environment and maximum convenience for course participants. A complete conference staff provides administrative support for seminars and conferences, as well as coordination for special hosted programs each year.

## **Lifelong Learning @ UMSL**

Lifelong Learning @ UMSL serves members ages 50 and older, which is a rapidly growing demographic with changing needs and demands. The program is primarily based on the principles of andragogy – learning strategies focusing on adults. The Lifelong Learning program focuses on enriching the group by empowering the individual, collaborative and active learning, practical applications, and is life-centered rather than content-centered.

## **Campus Testing Centers**

The Campus Testing Center and the Online Testing Center are administratively housed in PCS. In March 2014, the Campus Testing Center moved to 93 J.C. Penney Conference Center (JCP), adjacent to

the Online Testing Center. The Campus Testing Center provides proctored testing by appointment for students to take make-up class exams or to test under conditions where special accommodations are needed and authorized. Students may also take campus level exams (e.g., Major Field Exam) outside the scheduled group sessions for a fee, as well as independent study course exams and various standardized exams. The Online Testing Center, located in room 94 JCP, is available for proctored exams using MyGateway (or other online assessment programs).



# International Studies and Programs

## General Information

The Office of International Studies and Programs (ISP) supports academic programs, seminars, and conferences designed to promote research in international studies, improve teaching of international studies, and encourage an interest in international affairs in the university and area communities.

ISP houses the Joint Center for East Asian Studies of UMSL and Washington University, the E. Desmond Lee Global Ethnic Collaborative, the Karakas Family Foundation Alliance for the Advancement of Hellenic Studies, and the Endowed Professorships in African/African American Studies, Chinese Studies, Greek Studies, international education, Irish Studies, Japanese Studies, the German Culture Center and the Greek Culture Center.

## Fellows

Each year a number of UMSL faculty are appointed as research Fellows.

## Study Abroad and Exchange Programs

The Study Abroad section of this Bulletin contains details about campus study abroad and international exchange programs. ISP's Study Abroad Office administers those programs.

## Office of International Student and Scholar Services

The Office of International Student and Scholar Services provides services for international students and scholars, including admissions, visa and immigration matters, credential evaluations, health insurance, tax matters, nonacademic advising, initial campus arrival, orientation, social activities, and referrals to other campus units.

## Minor in African/African American Studies

Core Course (Required):

C I ST 2000	Introduction to African/African American Studies	3
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Select at least four of the following electives: 12

ANTHRO 2124	Cultures Of Africa (Core Course (Required))	
ANTHRO 3235	Women In Subsaharan Africa: A Contemporary Perspective	
ART HS 1105	Introduction To The Arts Of Africa	
HIST 1003	African-American History	
HIST 1061	African Civilization: From The Beginning of Humanity to The End of The Slave Trade	
HIST 1062	African Civilization II: From Colonies to Nations	
HIST 2016	African-American History: From Slavery to Civil Rights	
HIST 2017	African-American History: From Civil Rights To Black Power	
HIST 2063	African Diaspora To Abolition of the Slave Trade	
HIST 2064	African Diaspora in the Age of Migration	
M H L T 1180	Musical Journal Through Africa	
POL SCI 2320	African Americans And The Political System	

POL SCI 2580	African Politics
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POL SCI 3580	African Diasporas: Identity Politics And Transnational Communities
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Total Hours	15
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## Undergraduate Certificate Programs

The Office of International Studies and Programs (ISP) offers a wide variety of certificates, which provide our students the opportunity to develop expertise in international subjects. These programs usually combine course offerings from several departments so the subject is examined from a multidisciplinary approach. While most persons who earn certificates do so in the process of completing their undergraduate degree, a certificate may be completed by non-degree seeking students.

## Africana Studies Certificate

Students seeking the Africana studies certificate have two options: an emphasis in African studies and an emphasis in African diaspora studies.

### Option I. African Studies:

Select at least one course in two of the following areas:	9
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#### Area 1: Anthropology

ANTHRO 2124	Cultures Of Africa
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#### Area 2: Art and Art History

ART HS 1105	Introduction To The Arts Of Africa
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#### Area 3: History

HIST 1061	African Civilization: From The Beginning of Humanity to The End of The Slave Trade
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HIST 1062	African Civilization II: From Colonies to Nations
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#### Area 4: Political Science

POL SCI 2580	African Politics
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Select one course from each of the following areas:	6
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#### Area 1: Anthropology

ANTHRO 3235	Women In Subsaharan Africa: A Contemporary Perspective
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#### Area 2: History

HIST 2062	West Africa Since 1800 <sup>1</sup>
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An independent study course in which a research paper will be written on some aspect of one of the fields offered in the program.	3
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Total Hours	18
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<sup>1</sup> This course will not be offered in 2014-2015. Contact department for more information.

### Option II. African Diaspora Studies

Select one course from each of the following areas:	6
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#### Area 1: Africa

Anthropology
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ANTHRO 2124	Cultures Of Africa
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History
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HIST 1061	African Civilization: From The Beginning of Humanity to The End of The Slave Trade
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HIST 1062	African Civilization II: From Colonies to Nations
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#### Area 2: Diaspora

Anthropology
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ANTHRO 1005	Introduction To Biological Anthropology
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History	
HIST 1003	African-American History
HIST 2016	African-American History: From Slavery to Civil Rights
HIST 2017	African-American History: From Civil Rights To Black Power

Select at least one course from each of the following areas: 9

**Area 1: Africa**

Anthropology	
ANTHRO 2191	Special Topics In Non-Western Culture
ANTHRO 3235	Women In Sub-Saharan Africa: A Contemporary Perspective
Art and Art History	
ART HS 1105	Introduction To The Arts Of Africa
History	
HIST 2062	West Africa Since 1800 <sup>1</sup>
Political Science	
POL SCI 2580	African Politics

**Area 2: Diaspora**

Communication	
COMM 3332	Intercultural Communication
History	
HIST 2015	Topics In African-American History
HIST 2063	African Diaspora To Abolition of the Slave Trade
HIST 2064	African Diaspora in the Age of Migration
Music	
M H L T 1060	Introduction To African-American Music
Political Science	
POL SCI 2320	African Americans And The Political System
Sociology	
SOC 4360	Sociology Of Minority Groups

An independent study course in which a research paper will be written on some aspect of one of the fields offered in the program. 3

Total Hours 18

<sup>1</sup> This course will not be offered in 2014-2015. Contact department for more information.

**East Asian Studies Certificate**

First- and second-year Chinese, Japanese, or other appropriate Asian language 20

HIST 1041	East Asian Civilization	3
HIST 1042	East Asian Civilization	3

Select one course in three of the following areas: 9

**Area 1: Anthropology**

ANTHRO 2111	Cultures Of East Asia
ANTHRO 2191	Special Topics In Non-Western Culture

**Area 2: Art and Art History**

ART HS 1108	Introduction To The Arts Of Asia
ART HS 4408	Topics In The Arts Of Asia

**Area 3: Business Administration**

INTL BUS 3281	Business In China
INTL BUS 3284	The Japanese Management System

**Area 4: Languages and Cultures-Chinese**

CHINESE 1005	Chinese Calligraphy and Writing in East Asia
CHINESE 1199	Special Topics: Language Immersion: Chinese
CHINESE 2150	Chinese Literature In Translation
CHINESE 2190	Special Readings
CHINESE 2199	Special Topics: Language Immersion: Chinese

**Area 5: Foreign Languages and Literatures-Japanese**

JAPAN 1003	Japanese III
JAPAN 1005	Chinese Calligraphy and Writing in East Asia
JAPAN 1199	Special Topics: Language Immersion: Japanese
JAPAN 2150	Classical Japanese Literature In Translation
JAPAN 2190	Special Readings
JAPAN 2199	Special Topic s: Language Immersion: Japanese
JAPAN 3201	Intermediate Japanese III
JAPAN 3202	Intermediate Japanese IV
JAPAN 3290	Special Readings
JAPAN 4390	Special Readings

**Area 6: History**

HIST 3031	History Of Women In The United States
HIST 3032	History Of Women In Comparative Cultures
HIST 3033	Sexuality And Gender Theory

**Area 7: Music**

M H L T 1090	Non-Western Music I
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**Area 8: Philosophy**

PHIL 1120	Asian Philosophy
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**Area 9: Political Science**

POL SCI 2550	East Asian Politics
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**Area 10: Social Work**

SOC WK 2330	Asians In Migration
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**Independent Study Course**

Students seeking the certificate must complete an independent study course in which a research paper will be written focusing upon some aspect of East Asian Studies. The topic should be approved in advance by International Studies and Programs. 3

Total Hours 38

**Modern European Studies Certificate**

Four semesters of college work or the equivalent in a modern European foreign language. 20

HIST 1032	Topics In European Civilization: 1715 To The Present	3
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Select one course each from at least four of the following areas: <sup>1</sup> 12

**Anthropology**

ANTHRO 2192	Anthropological Perspectives on Western Culture
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**Art and Art History**

ART HS 2250	Nineteenth Century European Art
ART HS 2255	Modern Art
ART HS 4445	Topics In 17Th And 18Th Century European Art
ART HS 4455	Topics In Modern Art

**Business Administration**

MKTG 3787	Marketing in the European Union
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**English**

ENGL 2280	Contemporary World Literature
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ENGL 2320	English Literature After 1790
ENGL 4450	The Eighteenth-Century English Novel
ENGL 4540	The Nineteenth-Century English Novel
ENGL 4580	Literature Of The Late Nineteenth And Early Twentieth Centuries
ENGL 4750	Modern British Fiction
ENGL 4920	Major Works Of European Fiction

**History**

HIST 2090	Europe in the Eighteenth Century:From the Glorious Revolution to the Napoleonic Era
HIST 2091	Europe in the Nineteenth Century: From Waterloo to World War I
HIST 3092	Europe, 1900-1950: War And Upheaval
HIST 3093	Europe, 1950-Present: Peace And Prosperity

**Languages and Cultures**

French	
FRENCH 3211	Contemporary French Culture
FRENCH 3281	French Literature and Culture After 1800
FRENCH 4350	Studies in Eighteenth-Century French Literature and Culture
FRENCH 4360	Studies in Nineteenth-Century French Literature and Culture
German	
GERMAN 2180	Intermediate Readings In German
GERMAN 3201	Introduction to German Literature
GERMAN 3210	German Culture And Civilization
GERMAN 3211	Topics in German Culture
GERMAN 3281	German Literature and Culture II: Romanticism - Present
GERMAN 4311	Special Topics In German Culture
GERMAN 4398	Survey Of German Literature Part II
Modern Greek	
GRK MOD 2150	Modern Greek Literature In Translation
GRK MOD 2190	Special Readings
Spanish	
SPANISH 4311	Special Topics In Hispanic Culture
SPANISH 4315	Spanish Literature From 1939 To The Present
SPANISH 4325	Poetry And Drama Of The Golden Age

**Music**

M H L T 4240	Music Of The Classic Period
M H L T 4250	Music Of The Romantic Period

**Philosophy**

PHIL 1111	Western Philosophy II: Descartes To The Present
PHIL 3303	Early Modern Philosophy
PHIL 3304	Kant And Nineteenth Century Philosophy
PHIL 3305	Twentieth Century Philosophy
PHIL 3369	The Marxist Heritage

**Political Science**

POL SCI 2510	The Politics of European Union
POL SCI 3595	Studies In Comparative Politics *
POL SCI 3890	Studies In International Relations *
POL SCI 4510	Comparative Public Policy And Administration *

**Independent Study Course**

Students seeking the certificate must complete an independent study course in which a research paper will be written focusing upon aspect of Modern European Studies. The topics should be approved in advance by International Studies and Programs.

Total Hours 38

- 1 Students should consult International Studies and Programs advisers to determine how these courses can best be arranged to meet their interests.

**Greek Studies Certificate****Greek Language**

Select at least three courses from the following: 9

**Ancient Greek**

GRK ANC 1001	Ancient Greek I (p. 471)
GRK ANC 1002	Ancient Greek II (p. 471)
GRK ANC 2101	Intermediate Ancient Greek Language And Culture (p. 471)
GRK ANC 2151	Greek And Latin In English Today (p. 471)
GRK ANC 2152A	Brief Introduction to Greek and Latin in English Today (p. 471)

**Modern Greek**

GRK MOD 100	Modern Greek I (p. 471)
GRK MOD 1002	Modern Greek II (p. 471)
GRK MOD 210	Intermediate Modern Greek Language And Culture (p. 471)
GRK MOD 2102	Intermediate Modern Greek Language And Culture II (p. 471)
GRK MOD 215	Modern Greek Literature In Translation (p. 471)
GRK MOD 2190	Special Readings (p. 471)

Select at least three courses from the following: 9

ANTHRO 1037	The Wonders of Greece: Introduction to Greek History and Culture (p. 471)
ANTHRO 1052	The Olympic Games: Ideals And Reality (p. 471)
ANTHRO 2035	Ancient Greek Civilization And Culture (p. 471)
ANTHRO/ HIST 2117	Greek History And Culture (p. 471)
ANTHRO 2192	Anthropological Perspectives on Western Culture (p. 471) (only when appropriate)
ANTHRO 3225	Ritual, Death And Sports: Archaeology Of Greek Mythology (p. 471)
ANTHRO 4309	Archaeological Field School (only when appropriate) (p. 471)
ANTHRO 4350	Special Study (p. 471)

ART HS 2211	Art And Archaeology Of The Ancient World (p. 471)	
ART HS 2212	Greek Art And Archaeology (p. 471)	
ART HS 3390	Special Study (only when appropriate) (p. 471)	
ART HS 4411	Topics In Ancient Art And Archaeology (only when appropriate) (p. 471)	
ART HS 4490	Special Study (only when appropriate) (p. 471)	
HIST 1030 (p. 471)	The Ancient Empires of the Mediterranean	
HIST/ ANTHRO 2117/ GRK MOD 2150 (p. 471)	Greek History And Culture	
GRK MOD 2151 (p. 471)	Modern Greek Literature In Translation	
GRK MOD 2190 (p. 471)	Special Readings <sup>1</sup>	
M H L T 4270 (p. 471)	A History Of Byzantine Music And Hymnography	
PHIL 3301 (p. 471)	Ancient Philosophy	
PHIL 4401 (p. 471)	Plato	
PHIL 4402 (p. 471)	Aristotle	
Total Hours		18

<sup>1</sup> Note: GRK MOD courses will count for either the language requirement or the focus area requirement but not for both.

## International Business Certificate

Students must complete a minimum of 12 credit hours in some approved overseas study program focusing on international business which is approved by the College of Business Administration.	12
Select one course from Area 1 and one from Area 2:	6

### Area 1: Business Administration

INTL BUS 3280 (p. 471)	The Law Of International Business Transactions
INTL BUS/ FINANCE 3580 (p. 471)	International Corporate Finance
INTL BUS 3281 (p. 471)	Business In China
INTL BUS/ FINANCE 3582 (p. 471)	International Investments
INTL BUS/ MGMT 3680 (p. 471)	International Management
INTL BUS 3282 (p. 471)	Managing The Global Workforce

INTL BUS 3284 (p. 471)	The Japanese Management System
MGMT 3685 (p. 471)	Role Of The Global Corporation
INTL BUS 3282 (p. 471)	Managing The Global Workforce
INTL BUS 4289 (p. 471)	International Strategic Management
INTL BUS/ MKTG 3780 (p. 471)	International Marketing
INTL BUS/ MKTG 3787 (p. 471)	Marketing in the European Union

### Area 2: International Studies <sup>1</sup>

ANTHRO 2111 (p. 471)	Cultures Of East Asia
ANTHRO 2114 (p. 471)	Cultures Of The Near And Middle East
ANTHRO 2124 (p. 471)	Cultures Of Africa
ECON 3300 (p. 471)	International Economic Analysis
ECON 3320 (p. 471)	Economic Development
POL SCI 3830 (p. 471)	International Political Economy
POL SCI 3850 (p. 471)	International Organizations And Global Problem-Solving
SOC 1241 (p. 471)	Globalization and Social Change
SOC 4354 (p. 471)	Sociology Of Business And Work Settings

An independent study course is not required for this certificate option.

Total Hours	18
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<sup>1</sup> In lieu of a course from Area 2, students may substitute one course (3 credit hours) at the advanced level of a foreign language. Advanced level is defined as a course beyond the 13 credit hour introductory language sequence.

## International Affairs Certificate

Satisfactory completion of the language requirements for the degree program in which a student is enrolled.

POL SCI 1800 (p. 471)	World Politics	3
Select four courses from at least three of the following eleven areas:		12

### Area 1: Anthropology

ANTHRO 3236 Sex Trafficking in Cross-Cultural Perspective  
(p. 471)

### Area 2: Biology

BIOL 1202 (p. 471) Environmental Biology

BIOL 3202 (p. 471) Conservation Biology

### Area 3: Business Administration



INTL BUS 3299	Independent Study In International Business (p. 471)
INTL BUS 3280	The Law Of International Business Transactions (p. 471)
FINANCE 3580	International Corporate Finance (p. 471)
INTL BUS 3281	Business In China (p. 471)
FINANCE 3582	International Investments (p. 471)
LOG OM 4381	International Logistics And Operations Management (p. 471)
MGMT 3680	International Management (p. 471)
INTL BUS 3282	Managing The Global Workforce (p. 471)
INTL BUS 3284	The Japanese Management System (p. 471)
MGMT 3685	Role Of The Global Corporation (p. 471)
INTL BUS 3283	International Business And Society (p. 471)
INTL BUS 4289	International Stretagic Management (p. 471)
MKTG 3780	International Marketing (p. 471)
MKTG 3787	Marketing in the European Union (p. 471)
<b>Area 4: Communication</b>	
COMM 3332	Intercultural Communication (p. 471)
<b>Area 5: Economics</b>	
ECON 3300	International Economic Analysis (p. 471)
<b>Area 6: Geography</b>	
GEOG 1002	World Regions (p. 471)
<b>Area 7: History</b>	
HIST 2024 (p. 471)	US Foreign Relations and Military History Since 1900
HIST 3033	
HIST 2064 (p. 471)	African Diaspora in the Age of Migration
HIST 2091 (p. 471)	Europe in the Nineteenth Century: From Waterloo to World War I
HIST 3092 (p. 471)	Europe, 1900-1950: War And Upheaval
HIST 3093 (p. 471)	Europe, 1950-Present: Peace And Prosperity
<b>Area 8: Media Studies</b>	
MEDIA ST 250 (p. 471)	Introduction To Comparative International Media Systems
MEDIA ST 3356 (p. 471)	Global Media Systems And Trends
<b>Area 9: Political Science</b>	

POL SCI 1820	Global Issues (p. 471)	
POL SCI 2510	The Politics of European Union (p. 471)	
POL SCI 2520	Middle Eastern Politics (p. 471)	
POL SCI 2820	United States Foreign Policy (p. 471)	
POL SCI 3830	International Political Economy (p. 471)	
POL SCI 3850	International Organizations And Global Problem-Solving (p. 471)	
POL SCI 3860	Studies In War And Peace (p. 471)	
POL SCI 3890	Studies In International Relations (p. 471)	
POL SCI 4850	International Law (p. 471)	
<b>Area 10: Social Work</b>		
SOC WK 2330	Asians In Migration (p. 471)	
<b>Area 11: Sociology</b>		
SOC 1241 (p. 471)	Globalization and Social Change	3
SOC 4354 (p. 471)	Sociology Of Business And Work Settings	
<b>Independent Study Course</b>		
Students seeking the certificate must complete an independent study course in which a research paper will be written focusing upon some aspect of international affairs. The topic should be approved in advance by International Studies and Programs.		3
Total Hours		21

## Latin American Studies Certificate

Thirteen credit hours or the equivalent in Spanish.	13
Select one of the following:	3
HIST 1051 (p. 471)	Latin American Civilization
HIST 1052 (p. 471)	Mexican Civilization
SPANISH 3211	Hispanic Culture And Civilization: Spanish America (p. 471)
Select three courses from at least three of the following areas:	12
<b>Area 1: Anthropology</b>	
ANTHRO 2134	Archaeology Of The Inca, Aztec, And Maya (p. 471)
<b>Area 2: History</b>	
HIST 1052 (p. 471)	Mexican Civilization
HIST 3051 (p. 471)	Latin America: From Conquest to Independence
HIST 2052 (p. 471)	History Of Latin America Since 1808
HIST 3097 (p. 471)	Spain: From Superpower to Napoleon's Puppet
<b>Area 3: Political Science</b>	

POL SCI 2530 Political Systems Of South America  
(p. 471)

POL SCI 2540 Political Systems Of Mexico, Central America And  
(p. 471) The Caribbean

POL SCI 3595 Studies In Comparative Politics  
(p. 471)

#### Area 4: Spanish

SPANISH 3211 Hispanic Culture And Civilization: Spanish America  
(p. 471)

SPANISH 3281 Introduction To Hispanic Literature: Spanish  
(p. 471) America

SPANISH 4345 Spanish American Literature Of The Twentieth  
(p. 471) Century

SPANISH 4351 Spanish American Fiction In The Twentieth Century  
(p. 471)

#### Independent Study Course

Students seeking the certificate must complete an independent study course in which a research paper will be written focusing upon some aspect of Latin American Studies. The topic should be approved in advance by International Studies and Programs. 3

Total Hours 31

## Graduate Certificate in International Studies

A Graduate Certificate in International Studies is a program of study featuring advanced multidisciplinary course work designed for individuals, including teachers and other professionals, who wish to expand their knowledge and understanding of international and cross-cultural affairs. The Certificate is sponsored by the Office of International Studies and Programs and the Departments of Economics, History, Foreign Languages and Literatures, and Political Science. A broad set of course offerings is available in these and other departments, with the flexibility for students to tailor the program to their particular interests and needs. The program has been developed as a vehicle for bringing together the resources of a distinguished faculty in international studies and for providing an opportunity for further graduate learning. Applicants to the Certificate program must meet the general requirements for admission to Graduate School as explained in the graduate study section of this Bulletin. The Certificate is awarded after completion of 18 hours, including a minimum of 12 hours drawn from a list of core courses and an additional six hours selected from a wide variety of offerings in eight different disciplines. No more than 12 hours may be from any one discipline. Students may simultaneously earn a graduate degree and count credits earned in their degree program toward the Certificate when appropriate.

## Requirements

Select three from the following list of core courses: 12

Business Administration

FINANCE 6580 International Financial Management

LOG OM 5381 International Logistics And Operations  
Management

ACCTNG 5480 International Accounting

Economics

ECON 5300 International Trade

ECON 5301 International Monetary Analysis

History

HIST 6115 Readings In African History

Political Science

POL SCI 6450 Proseminar In Comparative Politics

POL SCI 6451 Seminar In Comparative Politics

POL SCI 6480 Proseminar In International Relations

POL SCI 6481 Seminar In International Relations

POL SCI 6488 Studies In International Relations

Sociology

Select two of the following: 6

Economics

ECON 3300 International Economic Analysis

ECON 4980 Special Readings

English

ENGL 4920 Major Works Of European Fiction

History

HIST 4001 Special Readings

Languages and Culture

FRENCH 4360 Studies in Nineteenth-Century French Literature  
and Culture

SPANISH 4315 Spanish Literature From 1939 To The Present

SPANISH 4345 Spanish American Literature Of The Twentieth  
Century

SPANISH 4351 Spanish American Fiction In The Twentieth Century  
Music

M H L T 4250 Music Of The Romantic Period

M H L T 4260 Music from 1900 to the Present

Political Science

POL SCI 4510 Comparative Public Policy And Administration

POL SCI 4850 International Law

POL SCI 6485 Directed Readings And Research In International  
Relations

Total Hours 18

Note: Students may not count both FINANCE 6580 and FINANCE 3580. No more than 12 credit hours may be from any one discipline.

## Study Abroad Programs

The University of Missouri-St. Louis is committed to broadening students' understanding of different cultures and preparing them for the global community in which we live. One of the most successful ways of achieving this global mindset is to study overseas. The opportunity to live and study in a different culture is an enriching experience, both academically and personally.

The Office of Study Abroad (<http://www.umsl.edu/services/abroad>) in the Office of International Studies and Programs (ISP) provides UMSL students with opportunities to study at over 80 different universities in more than 30 countries around the globe. Most programs run for an academic year, semester, or summer. Two to three week-long faculty-led programs are offered during the winter intersession and summer. Through individual advising at ISP's Study Abroad Office, students can find the program best suited to their personal, academic, and career goals. Internship possibilities are also available for qualified students.

## Fees and Financial Aid

The cost of the program depends on the services provided and the country and city of study. For most programs, participants continue to pay UMSL fees plus airfare, room and board, and spending money. Students are usually housed in dormitories or are assisted in finding apartments. In most cases, students are able to use their UMSL financial aid toward a study abroad program. Study abroad scholarships are available for qualified applicants through ISP.

## Application

Generally, applications are due in mid-February for summer, fall and academic year programs, and mid September for winter intersession and spring semester programs. Students should plan to spend at least one or two months researching a program before applying.

Participant selection is based on academic achievement, faculty recommendations, approval of the proposed course of study via the department/divisional advisory process, and for some programs, proficiency in the foreign language of instruction. Most programs are designed for undergraduate students in their junior or senior years of study; however, a limited number of programs for freshmen, sophomores, and graduate students are available.

## Student Teaching Abroad

Teacher Education students may be able to student teach in Fuxin, China during the spring semester. In addition to meeting the other requirements for student teaching, students complete an application form for the site.

## Courses

### ***C I ST 2000 Introduction to African/African American Studies: 3 semester hours***

The course examines the cultural and human experiences of Africans and peoples of the African Diaspora. The course will also explore the contributions of Africans and peoples of African descent in all areas of human endeavor, with particular emphasis on their cultural-aesthetics and social behavioral heritage.

### ***C I ST 3200 Study Abroad, Non UM-St. Louis Program: 1-24 semester hours***

### ***C I ST 5200 Study Abroad Non UM-St Louis Program Grad: 1-15 semester hours***

# Internship and Cooperative Education Positions

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## Internship/Cooperative Education Positions

Internships and Co-ops give students the opportunity to combine classroom studies with work experience in a field related to their education and career goals. These degree related positions offer students an excellent opportunity to gain professional job experience and earn money to help with expenses while in school. Through these opportunities, students begin to understand what career choices they might make, gain valuable contacts in their field, and, in many cases, get paid for their work. They graduate with a college degree and an impressive resume. Career Services and academic departments work with students and employers to ensure that positions are linked to curriculum and career development. These opportunities are available to UMSL students at all levels in all majors. Contact Career Services for more information at 516-5111, or visit 278 Millennium Center.

In addition to internships available through Career Services, internships and practica are available through many academic departments. Academic advisors can provide information about the requirements for these experiences, some of which are summarized below.

## College of Arts and Sciences

### Anthropology

ANTHRO 4325- ANTHRO 4329, Internship in Cultural Anthropology, Archaeology, Folklore, Museum Studies, Physical Anthropology - elective, for credit; placement with outside organizations; junior standing required. Positions available on competitive basis as lab and research assistants, teachers/facilitators, and interns/assistants - optional, noncredit.

The Human Origin and Cultural Diversity program offers internships in educational anthropology and diversity education.

### Biology

BIOL 3699, Undergraduate Internship in Biotechnology - optional as part of certificate program, for credit or noncredit, enrollment in certificate program required.

BIOL 4299, Practicum in Conservation - required as part of certificate program, for credit, enrollment in certificate program required.

### Chemistry and Biochemistry

Opportunities are available to pursue research with faculty members for credit during the academic year, normally while enrolled in CHEM 3905. Stipends may be available in some cases. Expanded opportunities are available in the summer through the Research Experience for Undergraduates Program, which is typically funded by the National Science Foundation and local industry. In some cases students may conduct CHEM 3905 research at a local company through collaborative arrangement between a faculty members and an industrial chemist.

## Criminology and Criminal Justice

CRIMIN 3280, Internship in Criminology and Criminal Justice - elective, for credit.

## Economics

ECON 4990, Internship in Applied Economics; not required; 3 hours maximum.

## English

ENGL 4890, Independent Writing Project - internships offered in areas such as journalism, public relations, advertising, publishing, and technical writing; for credit, enrollment in Writing Certificate Program required.

## Languages and Cultures

Paid, noncredit positions as tutors in language lab available on a competitive basis. Students of German can apply for summer noncredit internships abroad in the German-American Student Exchange Program at the Study Abroad Office.

## History

HIST 4001, Special Readings - internships occasionally available with historical agencies; department chair and/or undergraduate coordinator must approve to obtain credit.

## Mathematics and Computer Science

Career-related work arrangements for students majoring in math and/or computer science are primarily administered through Career Services located in 278 Millennium Student Center. These positions are paid and non-credit-bearing.

## Physics and Astronomy

The department funds research internships in the department in both physics and astronomy. The awards are competitive, and preference is given to students who have completed the PHYSICS 2111/ PHYSICS 2112 sequence.

## Political Science

POL SCI 3940 Public Affairs Internship - required, for credit, for bachelor of science in public administration program. It may also count as an elective, for credit, within the bachelor of arts in political science program and is open to all majors. Placements include municipal, state, and federal governmental agencies, nonprofit organizations, courts, and political campaign offices.

## Psychology

PSYCH 3390, Research Assistant.

## Social Work

SOC WK 4800 and SOC WK 4850, Supervised Field Experience in Social Work I and II - required, for credit, admission to B.S.W. program and prior consent of instructor are required.

## Sociology

SOC 4385 Internship in Sociology - elective, for credit.

## College of Business Administration

Career Services works in partnership with the College of Business Administration to assist students in securing career-related work arrangements for students majoring in all areas of business. These



positions can be paid or unpaid and credit bearing or non-credit bearing. Those students choosing to receive academic credit through one of the courses listed below must contact the College of Business Administration Internship Coordinator in Room 469 SSB, by phone at 314-516-6117, or by email.

ACCTNG 3490	Internship In Accounting	1-3
BUS AD 3090	Internship In Business Administration	1-3
INTL BUS 3289	Practicum In International Business	3
BUS AD 3990	Internship In Business Law	1-3
FINANCE 3590	Internship In Finance	1-3
INFSYS 3890	Internship In Management Information Systems	1-3
LOG OM 3390	Internship In Logistics And Operations Management	1-3
MGMT 3690	Internship In Management	1-3
MKTG 3790	Internship In Marketing	1-3

## College of Education

Internships (4989) are required for 3 hours credit for most undergraduate programs and Student Teaching (4990 and 4991) is required for 12 hours credit in all teacher certification programs. For more information, contact the Teacher Certification and Advising Office at Deborah\_Ballard@umsl.edu or at 314-516-6710.

## College of Fine Arts and Communication

### Art

ART HS 3387, Professional Internship for Art History majors only elective, for credit.

ART HS 3388, St. Louis Art Museum Internship for Studio Art or Art History majors only – competitive position elective for credit.

### Communication

COMM 4920, Practicum in Applied Communication

COMM 4950, Internship in Applied Communication

### Media Studies

On-campus positions, as available:

MEDIA ST 1194	Practicum In Journalism	1-3
MEDIA ST 1196	Practicum In Radio	1-3
MEDIA ST 1197	Practicum In Television/Film	1-3
MEDIA ST 1198	Practicum In Media Studies	1-3
MEDIA ST 2095	Practicum In Advertising	1-3

Elective for credit, Senior standing, 3.0 GPA, and faculty recommendation required; off-campus positions:

MEDIA ST 3394	Internship In Journalism	3-6
MEDIA ST 3395	Internship In Advertising	3-6
MEDIA ST 3396	Internship In Radio	3-6
MEDIA ST 3397	Internship In Television/Film	3-6
MEDIA ST 3398	Internship In Media Studies	3-6

## Music

PRACTM 4920, Internship – required, for credit, enrollment in bachelor of music business required. Department sponsored internships available for all majors at St. Louis area arts institutions.

## Joint Engineering Program

UMSL/Washington University Joint Undergraduate Engineering Program career-related work arrangements for students majoring in all areas of engineering are primarily administered through Career Services. These positions are paid and non-credit-bearing.

## College of Nursing

Clinical courses are required in both the undergraduate and graduate programs. These experiences are limited to nursing majors only.

## Pierre Laclede Honors College

Internships chosen by Honors College students, or arranged by their major departments, are valuable opportunities to broaden educational experience while also meeting the honors independent study requirement for graduation. Visit Career Services, 278 Millennium Student Center, or call 314 516-5111 for more information on these programs and other work arrangements available.

# Supporting Offices

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## Alumni Association

414 Woods Hall  
Phone: 314-516-5833  
Fax: 314-516-5858  
Email: [alumni@umsl.edu](mailto:alumni@umsl.edu)  
Website: <http://www.umslalumni.org>

## Campus Testing Center

93 JC Penney  
Phone: 314-516-6396  
Fax: 314-516-7346  
Email: [assessctr@umsl.edu](mailto:assessctr@umsl.edu)  
Website: <http://www.umsl.edu/~campustesting/>

## Cashier's Office

285 Millennium Student Center  
Phone: 314-516-5151  
Fax: 314-516-5302  
Email: [cashiers@umsl.edu](mailto:cashiers@umsl.edu)  
Website: <http://www.umsl.edu/cashiers/>

## Center for Teaching and Learning

519 Lucas Hall  
Phone: 314-516-4508  
Fax: 314-516-7130  
Email: [ctl@umsl.edu](mailto:ctl@umsl.edu)  
Website: <http://www.umsl.edu/services/ctl/>

## English-as-a-Second Language/English for Academic Purposes

554 Clark Hall  
Phone: 314-516-6240  
Fax: 314-516-6237  
Website: <http://www.umsl.edu/divisions/artscience/forlanglit/Languages/esl.html>

## Equal Opportunity and Diversity

127 Woods Hall  
Phone: 314-516-5695  
Fax: 314-516-5673  
Website: <http://www.umsl.edu/services/oeo/>

## Information Technology Services

451 Express Scripts Hall  
Phone: 314-516-6000  
Fax: 314-516-6007  
Website: <http://www.umsl.edu/technology/index.html>

## Institutional Safety (Police)

44 Campus Police Building  
Phone: 314-516-5155  
Fax: 314-516-6536  
Website: <http://safety.umsl.edu/police/>

## International Student and Scholar Services

261 Millennium Student Center  
Phone: 314-516-5229  
Fax: 314-516-5636  
Email: [iss@umsl.edu](mailto:iss@umsl.edu)  
Website: <http://www.umsl.edu/~intelstu/>

## Parking and Transportation

44 Campus Police Building  
Phone: 314-516-4190  
Website: <http://www.umsl.edu/~transportation/>

## Mathematics and Writing Academic Center

222 Social Sciences Building  
Phone: 314-516-6863  
Website: <http://www.cs.umsl.edu/lab/mathlab.html>  
Website: <http://www.umsl.edu/~umslenglish/Writing%20Lab/index.html>

## Science and Technology Academic Center

125 Stadler Hall  
Website: <http://www.umsl.edu/~stac/contactus.html>

## Veteran's Center

211 Clark Hall  
Phone: 314-516-5705  
Email: [VeteransOffice@umsl.edu](mailto:VeteransOffice@umsl.edu)  
Website: <http://www.umsl.edu/veterans/>

## University Libraries

### The Thomas Jefferson Library

Phone: 314-516-5060  
Website: <http://www.umsl.edu/services/library/index.html>

### St. Louis Mercantile Library

Phone: 314-516-7240  
Website: <http://www.umsl.edu/mercantile/>

## University Archives

220 Thomas Jefferson Library  
Phone: 314-516-5129  
Website: <http://www.umsl.edu/services/library/university-archives/index.html>

## Student Affairs

### Vice Provost for Student Affairs

301 Woods Hall  
Phone: 314-516-5211  
Fax: 314-516-5221  
Email: [student\\_affairs@umsl.edu](mailto:student_affairs@umsl.edu)  
Website: <http://www.umsl.edu/studentlife/dsa/>

## Admissions

351 Millennium Student Center  
Phone: 314-516-5451 / 1-800-462-8675  
Fax: 314-516-5310  
Email: [admissions@umsl.edu](mailto:admissions@umsl.edu)

Website: <http://www.umsl.edu/admissions/index.html>

## Athletics

Intercollegiate Sports  
225 Mark Twain Building  
Phone: 314-516-5661  
Fax: 314-516-5503  
Website: <http://www.umsltritons.com/>

## Campus Recreation

203 Mark Twain Building  
Phone: 314-516-5326  
Website: <http://www.umsl.edu/services/recsport/index.html>

## Career Services

278 Millennium Student Center  
Phone: 314-516-5111  
Fax: 314-516-6535  
Email: [careerservices@umsl.edu](mailto:careerservices@umsl.edu)  
Website: <http://www.umsl.edu/depts/career/>

## Degree Audit Reporting System (DARS)

225 Millennium Student Center  
Phone: 314-516-6815  
Fax: 314-516-4725  
Website: <http://www.umsl.edu/services/dars/index.html>

## Disability Access Services

144 Millennium Student Center  
Phone: 314-516-6554  
TDD: 314-516-5212  
Fax: 314-516-6561  
Website: <http://www.umsl.edu/services/disabled/>

## Multicultural Student Services

107 Lucas Hall  
Phone: 314-516-6807  
Fax: 314-516-4611  
Email: [multicultural@umsl.edu](mailto:multicultural@umsl.edu) ([multicultural@umsl.edu](mailto:multicultural@umsl.edu))  
Website: <http://www.umsl.edu/multicultural>

## New Student Programs

366 Millennium Student Center  
Phone: 314-516-5291  
Email: [orientation@umsl.edu](mailto:orientation@umsl.edu)  
Website: <http://www.umsl.edu/newstudentprograms>

## Precollegiate Student Services-Bridge Program

107 Lucas Hall  
Phone: 314-516-5196  
Fax: 314-516-4611  
Email: [precollegiate@umsl.edu](mailto:precollegiate@umsl.edu)  
Website: <http://www.umsl.edu/precollegiate>

## Registrar

269 Millennium Student Center  
Phone: 314-516-5545

Fax: 314-516-7096  
Email: [registration@umsl.edu](mailto:registration@umsl.edu)  
Website: <http://www.umsl.edu/~register>

## Social Work Based Services

144 Millennium Student Center  
Phone: 314-516-6369

## Student Financial Aid

327 Millennium Student Center  
Phone: 314-516-5526  
Fax: 314-516-5408  
Email: [financialaid@umsl.edu](mailto:financialaid@umsl.edu)  
Website: <http://www.umsl.edu/services/finaid/>

## Student Retention Services

225 Millennium Student Center  
Phone: 314-516-5300  
Fax: 314-516-4725  
Email: [umslsrs@umsl.edu](mailto:umslsrs@umsl.edu)  
Website: <http://www.umsl.edu/~umslsrs/>

## Student Life

366 Millennium Student Center  
Phone: 314-516-5291  
Fax: 314-516-6747  
Email: [studentlife@umsl.edu](mailto:studentlife@umsl.edu)  
Website: <http://www.umsl.edu/studentlife/osl/index.html>

## University Bookstore and Triton Tech

Phone: 314-516-5763  
Fax: 314-516-5770  
Website: <http://www.umslbookstore.com/>

## University Health, Wellness and Counseling Services

131 Millennium Student Center  
Phone: 314-516-5671  
Fax: 314-516-5988  
Email: [health\\_services@umsl.edu](mailto:health_services@umsl.edu)  
Website: <http://www.umsl.edu/~uhwacs/>

# Courses of Instruction

## Accounting

### Courses

#### **ACCTNG 2400 Fundamentals Of Financial Accounting: 3 semester hours**

Prerequisites: MATH 1030 and completion of 27 credit hours. MATH 1030 may be taken concurrently. This is a one semester course in financial accounting theory and practice. The primary emphasis is on the corporate financial statements of income, financial position and cash flow-their content and interpretation; and the impact of financial transactions upon them.

#### **ACCTNG 2410 Managerial Accounting: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 2400. This is an advanced course that goes beyond the scope of a second-semester course in fundamentals of accounting. The development, interpretation, and use of relevant cost behavior, control, and traceability concepts for management planning, controlling and decision making are emphasized. Topics include: an introduction to product costing, the contribution concept, direct costing, performance standards and variance analysis, responsibility accounting, segment profitability, alternative choice decisions, and capital budgeting.

#### **ACCTNG 3401 Financial Accounting And Reporting I: 3 semester hours**

Prerequisites: A minimum 2.0 campus GPA, MATH 1030, ACCTNG 2410, and 57 credit hours Review of the foundations of financial accounting theory and of the financial statement preparation process. Accounting theory and practice related to current assets (except for investments in securities). The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

#### **ACCTNG 3402 Financial Accounting And Reporting II: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as investments in securities, operational assets, current and long-term liabilities, and leases. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

#### **ACCTNG 3411 Cost Accounting: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. The study of the basic principles of cost determination for, and control of, manufacturing and distribution activities. Topics include job-order costing, process costing, cost allocations, and the development and use of standard costs within a system of absorption costing.

#### **ACCTNG 3421 Accounting Information Systems: 3 semester hours**

Prerequisites: Minimum campus GPA of 2.0. In addition, MATH 1030, INFSYS 1800, ACCTNG 2410, and ACCTNG 3401. Examines the fundamentals of accounting information systems, including hardware and software considerations, internal controls, and transaction processing cycles. Also focuses upon the development of efficient spreadsheets as applied to financial and managerial accounting concepts.

#### **ACCTNG 3441 Income Taxes: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Fundamentals of Federal income taxation. Topics include taxable entities, income, deductions, tax accounting methods, tax basis, and property transactions at both the conceptual and operational levels.

#### **ACCTNG 3445 I.R.S. Procedures and Federal Taxation of Estates, Gifts and Trusts: 3 semester hours**

Prerequisites: MATH 1030 and either ACCTNG 3401 or FINANCE 3560; also a minimum campus GPA of 2.2 in all Accounting courses at the 3000-level and above taken at UM-St. Louis. The first topic includes the federal taxation of estates, gifts and trusts as they relate to wealth management. The second topic concerns interaction with the federal tax authorities. Topics may include preparing an audit protest, a request for an I.R.S. ruling, and a petition to the U.S. Tax Court.

#### **ACCTNG 3451 Accounting For Governmental And Not-For-Profit Entities: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; also MATH 1030 and ACCTNG 3402. Principles of fund accounting and financial reporting for governmental and nonprofit entities. This course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

#### **ACCTNG 3460 Accounting Career Strategies: 3 semester hours**

Prerequisites: ACCTNG 3401; minimum campus GPA of 2.0 and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This is a course in career and professional development. The primary emphasis is developing and executing a career strategy, enhancing business and client communication skills, and preparing for the transition to the accounting profession.

#### **ACCTNG 3490 Internship In Accounting: 1-3 semester hours**

Prerequisites: ACCTNG 3401, a minimum campus GPA of 2.0, a minimum GPA of 2.7 in all accounting courses at the 3000-level and above taken at UM-St. Louis, consent of supervising instructor and accounting internship coordinator. Students are employed in the field of Accounting where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. An accounting faculty member will monitor the student's program with the student providing a formal written report at the end of the project.

#### **ACCTNG 3495 Special Administration Problems - Accounting (VITA) Program: 1-3 semester hours**

Prerequisites: ACCTNG 2400, ACCTNG 2410 and ACCTNG 3401; minimum campus GPA of 2.0, minimum GPA of 2.2 in all accounting courses at the 2000-level and above taken at UMSL; completion of nine semester hours of accounting. Enrollment in the course is restricted to volunteer Income Tax Assistance (VITA) program student participants. The class offers practical tax experience, networking opportunities, potential managerial experience, and personal satisfaction derived from community service. It is taken on a satisfactory/unsatisfactory basis. The course offers one to three hours of undergraduate business elective credit and may be repeated for up to 3 hours credit.

#### **ACCTNG 3498 Seminar in Accounting: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum campus GPA of 2.0 and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This course is a selected special topic in the field of accounting. May be repeated for credit with different topics.



**ACCTNG 3499 Independent Study In Accounting: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0, a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL and approval by the supervising professor and the department chair. Special individual study in accounting under the supervision of a full-time accounting faculty member.

**ACCTNG 4401 Financial Accounting And Reporting III: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3402; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as income taxes, pensions, owners' equity, earnings per share, and the statement of cash flows. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 4402 Financial Accounting And Reporting IV: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3402; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as business combinations, consolidated financial statements, multinational operations, foreign exchange transactions, and governmental and nonprofit organizations. The course includes an emphasis on unstructured problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 4405 Professional Accounting Research: 3 semester hours**

Prerequisites: ACCTNG 4401; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Discussion of the research tools and methods available to resolve questions concerning accounting standards and practices. Critical analysis of topics of current interest and importance in accounting practice is the focal point of the course.

**ACCTNG 4435 Auditing: 3 semester hours**

Prerequisites: MATH 1105; ACCTNG 3402; ACCTNG 3421 or INFSYS 3810; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. An introduction to auditing practice. Includes the social role of auditing and the services offered by auditors in internal, governmental, and public accounting practice. Emphasis is on the financial auditing process, including professional ethics, audit risk assessment, study and evaluation of internal control, gathering and evaluating audit evidence, and audit reporting decisions.

**ACCTNG 4441 Advanced Federal Income Tax: Business Taxation: 3 semester hours**

Prerequisites: ACCTNG 3441 with a grade of B- or above; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Focuses on federal income taxation of corporations, S corporations, partnerships, LLCs and their owners.

**ACCTNG 5400 Financial And Managerial Accounting: 3 semester hours**

This course provides an introduction to accounting, with emphasis on preparation of financial statements for external parties (financial accounting) and accumulation of cost information to aid internal planning and control (managerial accounting). Topics covered include measurement of assets and liabilities, revenues and expenses, the accounting cycle, financial statements, cost terminology, cost behavior, product costing, and relevant costs for decision making. This course provides the necessary background for ACCTNG 5401.

**ACCTNG 5401 Financial Reporting And Analysis: 3 semester hours**

Prerequisites: ACCTNG 5400 or the equivalent. This course builds on the foundations covered in ACCTNG 5400, emphasizing in-depth analysis of published financial statements. The course begins with discussion of the role of financial accounting information in capital markets and contracting, and continues with examination of a number of specific accounting issues. Students are encouraged to look behind the numbers to better understand the economics of the underlying transactions, and properly interpret what the reported numbers mean about a firm's future prospects.

**ACCTNG 5402 Professional Accounting Research: 3 semester hours**

Prerequisites: ACCTNG 4401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Discussion of the research tools and methods available to resolve questions concerning accounting standards and practices. Critical analysis of topics of current interest and importance in accounting practice.

**ACCTNG 5403 Graduate Topics in Financial Accounting: 3 semester hours**

Prerequisites: ACCTNG 4401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of current financial reporting issues. Analysis of current problems and approaches pertaining to the communication of corporate financial information to the U.S. and international investment communities.

**ACCTNG 5404 Professional Accountancy I: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 2410; a minimum 2.0 campus GPA; graduate standing. This is the first professional-level course in financial reporting. The course includes a study of the conceptual framework underlying Generally Accepted Accounting Principles (GAAP) and issues pertaining to accounting for current assets and liabilities.

**ACCTNG 5405 Professional Accountancy II: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; graduate standing. This is the second professional-level course in financial reporting. The course includes an in-depth study of issues pertaining to accounting for operational assets, liabilities and owners equity.

**ACCTNG 5406 Research and Professional Writing in Accounting: 3 semester hours**

Prerequisites: Completion of ACCTNG 4401 and enrollment in Master of Accounting Program.. This course employs the professional accounting literature and authoritative databases to analyze contemporary issues in accounting. Students will refine their communication skills in preparation for leadership roles in the accounting profession.

**ACCTNG 5408 Fraud Examination: 3 semester hours**

Prerequisites: ACCTNG 3402 or ACCTNG 5405; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This course is designed for graduate students who are interested in fraud and its effects. Students will be introduced to theoretical concepts of fraud and practical responses to it. Course coverage includes an overview of the fraud problem; prevention and detection of fraud; elements of fraud investigation, interview techniques, fraud types, and laws governing the prosecution of fraud cases.

**ACCTNG 5411 Cost Systems Analysis: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; graduate standing. The development, interpretation, and use of accounting reports and supplementary information for management planning, control and decision making. Emphasizes the application of relevant cost behavior, control and traceability concepts in the preparation of internal accounting reports, with a secondary emphasis upon product costing techniques as appropriate to financial accounting needs. Topics include break-even analysis, operational budgeting, direct costing, absorption costing, standard costs and variance analysis, business segment analysis, responsibility accounting distribution cost accounting, and gross profit analysis.

**ACCTNG 5412 Graduate Topics in Management: Accounting Controllorship: 3 semester hours**

Prerequisite: ACCTNG 3411 or ACCTNG 5411; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of advanced managerial accounting techniques useful in facilitating the planning and control process in the modern organization. Emphasis on the implementation and administration of these techniques, their integration with management information systems, and the organizational role of the corporate accountant.

**ACCTNG 5421 Information Systems in Accounting: 3 semester hours**

Prerequisites: MATH 1030; INFSYS 1800; ACCTNG 2410; ACCTNG 3401; a minimum campus GPA of 2.0; graduate standing. This is a professional-level course in accounting information systems. The course includes examination of transaction cycles, structured analysis and design of accounting information systems, and internal controls.

**ACCTNG 5435 Graduate Topics in Auditing: 3 semester hours**

Prerequisite: ACCTNG 4435; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of advanced auditing and attestation issues, with an emphasis on operational auditing. Topics include professional ethics, risk analysis, internal control, fraud detection, analytical procedures, determining and assessing operational objectives, and reporting and implementing audit findings.

**ACCTNG 5436 Systems Auditing: 3 semester hours**

Prerequisite: ACCTNG 5400, INFSYS 6800 or consent of instructor. Study of techniques involved in the control and audit of computer-based systems. Emphasis on the review of internal controls at operational and administrative levels and on computer-assisted audit techniques.

**ACCTNG 5441 Tax Research: 3 semester hours**

Prerequisite: Acctng 3441; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; or consent of instructor. Application of the research tools and methods available to resolve questions pertaining to the tax laws. Addresses techniques for locating and evaluating relevant authority. Students will be expected to complete written tax research memos. A basic understanding of federal income tax law is presumed.

**ACCTNG 5446 Advanced Topics in Taxation: 3 semester hours**

Prerequisites: ACCTNG 3441. Address advanced topics in taxation selected by the instructor.

**ACCTNG 5447 Taxation of Individuals and Businesses: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401 or both ACCTNG 5400 and FIN 6590 with the topic "Practice of Personal Financial Planning" with grades of B or better in both; graduate standing. This is the first professional-level course in taxation. The course includes a general introduction to the concepts of taxation. It will enable students to understand the role of taxes in evaluating decisions typically confronted by individual taxpayers and businesses.

**ACCTNG 5451 Accounting and Auditing in Governmental and Not-for-Profit Entities: 3 semester hours**

Prerequisite: ACCTNG 3402 and graduate standing; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of accounting for use in the public sector and in not-for-profit organizations. Principles of fund accounting and financial reporting for governmental and not-for-profit entities, as well as auditing in the public sector.

**ACCTNG 5480 International Accounting: 3 semester hours**

Same as INTL BUS 5480. Prerequisites: ACCTNG 3402. Accounting practices for multinational businesses. Discussion of comparative financial accounting practices, the development of international accounting standards, and managerial accounting practices related to multinational operations.

**ACCTNG 5490 Graduate Internship in Accounting: 1-3 semester hours**

Prerequisites: ACCTNG 3401 or ACCTNG 5404; a minimum graduate GPA of 3.0; a minimum GPA of 3.0 in all accounting courses at the 3000-level and above taken at UMSL; consent of supervising instructor and accounting internship coordinator. The student works in an accounting internship that contains sufficient content and rigor to merit graduate credit. The student's program will be monitored by a member of the Graduate Faculty in Accounting. The course requires several meetings with the faculty advisor and a graduate-level written assignment. The course will be graded on a Satisfactory/Unsatisfactory basis. A student who has previously taken ACCTNG 3490 may not take ACCTNG 5490.

**ACCTNG 5491 Contemporary Issues In Accountancy: 3 semester hours**

Prerequisites: ACCTNG 5405 or ACCTNG 3402. This course includes an analysis of contemporary developments in the practice of accountancy or theories underlying it. This course may address topics in accountancy in any area of specialization (financial, cost/managerial, tax, auditing, governmental/NFP) or may examine topics that affect the profession as a whole. Topics will vary. May be repeated for credit when topics are different.

**ACCTNG 5498 Graduate Seminar in Accounting: 3 semester hours**

Prerequisites: To be determined each time the course is offered and to include a minimum 2.0 overall GPA and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Study of selected special problems in accounting. May be repeated for credit with different topics.

**ACCTNG 5499 Individual Research in Accounting: 1-3 semester hours**

Prerequisites: Consent of instructor, department chair and graduate director; a minimum 3.0 graduate GPA; a minimum GPA of 3.0 in all accounting courses at the 3000-level and above taken at UMSL. Special individual research topics in Accounting under the guidance of a specific professor.

**ACCTNG 6441 Graduate Topics in Taxation: 3 semester hours**

Prerequisite: At least a B in ACCTNG 3441 or ACCTNG 5447; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Addresses tax policy topics drawing on literature from accounting, economics, and public finance. Other topics of current interest will be selected by the instructor.

**Courses****ACCTNG 2400 Fundamentals Of Financial Accounting: 3 semester hours**

Prerequisites: MATH 1030 and completion of 27 credit hours. MATH 1030 may be taken concurrently. This is a one semester course in financial accounting theory and practice. The primary emphasis is on the corporate financial statements of income, financial position and cash flow-their content and interpretation; and the impact of financial transactions upon them.

**ACCTNG 2410 Managerial Accounting: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 2400. This is an advanced course that goes beyond the scope of a second-semester course in fundamentals of accounting. The development, interpretation, and use of relevant cost behavior, control, and traceability concepts for management planning, controlling and decision making are emphasized. Topics include: an introduction to product costing, the contribution concept, direct costing, performance standards and variance analysis, responsibility accounting, segment profitability, alternative choice decisions, and capital budgeting.

**ACCTNG 3401 Financial Accounting And Reporting I: 3 semester hours**

Prerequisites: A minimum 2.0 campus GPA, MATH 1030, ACCTNG 2410, and 57 credit hours Review of the foundations of financial accounting theory and of the financial statement preparation process. Accounting theory and practice related to current assets (except for investments in securities). The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 3402 Financial Accounting And Reporting II: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as investments in securities, operational assets, current and long-term liabilities, and leases. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 3411 Cost Accounting: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. The study of the basic principles of cost determination for, and control of, manufacturing and distribution activities. Topics include job-order costing, process costing, cost allocations, and the development and use of standard costs within a system of absorption costing.

**ACCTNG 3421 Accounting Information Systems: 3 semester hours**

Prerequisites: Minimum campus GPA of 2.0. In addition, MATH 1030, INFSYS 1800, ACCTNG 2410, and ACCTNG 3401. Examines the fundamentals of accounting information systems, including hardware and software considerations, internal controls, and transaction processing cycles. Also focuses upon the development of efficient spreadsheets as applied to financial and managerial accounting concepts.

**ACCTNG 3441 Income Taxes: 3 semester hours**

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Fundamentals of Federal income taxation. Topics include taxable entities, income, deductions, tax accounting methods, tax basis, and property transactions at both the conceptual and operational levels.

**ACCTNG 3445 I.R.S. Procedures and Federal Taxation of Estates, Gifts and Trusts: 3 semester hours**

Prerequisites: MATH 1030 and either ACCTNG 3401 or FINANCE 3560; also a minimum campus GPA of 2.2 in all Accounting courses at the 3000-level and above taken at UM-St. Louis. The first topic includes the federal taxation of estates, gifts and trusts as they relate to wealth management. The second topic concerns interaction with the federal tax authorities. Topics may include preparing an audit protest, a request for an I.R.S. ruling, and a petition to the U.S. Tax Court.

**ACCTNG 3451 Accounting For Governmental And Not-For-Profit Entities: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; also MATH 1030 and ACCTNG 3402. Principles of fund accounting and financial reporting for governmental and nonprofit entities. This course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 3460 Accounting Career Strategies: 3 semester hours**

Prerequisites: ACCTNG 3401; minimum campus GPA of 2.0 and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This is a course in career and professional development. The primary emphasis is developing and executing a career strategy, enhancing business and client communication skills, and preparing for the transition to the accounting profession.

**ACCTNG 3490 Internship In Accounting: 1-3 semester hours**

Prerequisites: ACCTNG 3401, a minimum campus GPA of 2.0, a minimum GPA of 2.7 in all accounting courses at the 3000-level and above taken at UM-St. Louis, consent of supervising instructor and accounting internship coordinator. Students are employed in the field of Accounting where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. An accounting faculty member will monitor the student's program with the student providing a formal written report at the end of the project.

**ACCTNG 3495 Special Administration Problems - Accounting (VITA) Program: 1-3 semester hours**

Prerequisites: ACCTNG 2400, ACCTNG 2410 and ACCTNG 3401; minimum campus GPA of 2.0, minimum GPA of 2.2 in all accounting courses at the 2000-level and above taken at UMSL; completion of nine semester hours of accounting. Enrollment in the course is restricted to volunteer Income Tax Assistance (VITA) program student participants. The class offers practical tax experience, networking opportunities, potential managerial experience, and personal satisfaction derived from community service. It is taken on a satisfactory/unsatisfactory basis. The course offers one to three hours of undergraduate business elective credit and may be repeated for up to 3 hours credit.

**ACCTNG 3498 Seminar in Accounting: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum campus GPA of 2.0 and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This course is a selected special topic in the field of accounting. May be repeated for credit with different topics.



**ACCTNG 3499 Independent Study In Accounting: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0, a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL and approval by the supervising professor and the department chair. Special individual study in accounting under the supervision of a full-time accounting faculty member.

**ACCTNG 4401 Financial Accounting And Reporting III: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3402; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as income taxes, pensions, owners' equity, earnings per share, and the statement of cash flows. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 4402 Financial Accounting And Reporting IV: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3402; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as business combinations, consolidated financial statements, multinational operations, foreign exchange transactions, and governmental and nonprofit organizations. The course includes an emphasis on unstructured problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 4405 Professional Accounting Research: 3 semester hours**

Prerequisites: ACCTNG 4401; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Discussion of the research tools and methods available to resolve questions concerning accounting standards and practices. Critical analysis of topics of current interest and importance in accounting practice is the focal point of the course.

**ACCTNG 4435 Auditing: 3 semester hours**

Prerequisites: MATH 1105; ACCTNG 3402; ACCTNG 3421 or INFSYS 3810; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. An introduction to auditing practice. Includes the social role of auditing and the services offered by auditors in internal, governmental, and public accounting practice. Emphasis is on the financial auditing process, including professional ethics, audit risk assessment, study and evaluation of internal control, gathering and evaluating audit evidence, and audit reporting decisions.

**ACCTNG 4441 Advanced Federal Income Tax: Business Taxation: 3 semester hours**

Prerequisites: ACCTNG 3441 with a grade of B- or above; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Focuses on federal income taxation of corporations, S corporations, partnerships, LLCs and their owners.

**ACCTNG 5400 Financial And Managerial Accounting: 3 semester hours**

This course provides an introduction to accounting, with emphasis on preparation of financial statements for external parties (financial accounting) and accumulation of cost information to aid internal planning and control (managerial accounting). Topics covered include measurement of assets and liabilities, revenues and expenses, the accounting cycle, financial statements, cost terminology, cost behavior, product costing, and relevant costs for decision making. This course provides the necessary background for ACCTNG 5401.

**ACCTNG 5401 Financial Reporting And Analysis: 3 semester hours**

Prerequisites: ACCTNG 5400 or the equivalent. This course builds on the foundations covered in ACCTNG 5400, emphasizing in-depth analysis of published financial statements. The course begins with discussion of the role of financial accounting information in capital markets and contracting, and continues with examination of a number of specific accounting issues. Students are encouraged to look behind the numbers to better understand the economics of the underlying transactions, and properly interpret what the reported numbers mean about a firm's future prospects.

**ACCTNG 5402 Professional Accounting Research: 3 semester hours**

Prerequisites: ACCTNG 4401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Discussion of the research tools and methods available to resolve questions concerning accounting standards and practices. Critical analysis of topics of current interest and importance in accounting practice.

**ACCTNG 5403 Graduate Topics in Financial Accounting: 3 semester hours**

Prerequisites: ACCTNG 4401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of current financial reporting issues. Analysis of current problems and approaches pertaining to the communication of corporate financial information to the U.S. and international investment communities.

**ACCTNG 5404 Professional Accountancy I: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 2410; a minimum 2.0 campus GPA; graduate standing. This is the first professional-level course in financial reporting. The course includes a study of the conceptual framework underlying Generally Accepted Accounting Principles (GAAP) and issues pertaining to accounting for current assets and liabilities.

**ACCTNG 5405 Professional Accountancy II: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; graduate standing. This is the second professional-level course in financial reporting. The course includes an in-depth study of issues pertaining to accounting for operational assets, liabilities and owners equity.

**ACCTNG 5406 Research and Professional Writing in Accounting: 3 semester hours**

Prerequisites: Completion of ACCTNG 4401 and enrollment in Master of Accounting Program.. This course employs the professional accounting literature and authoritative databases to analyze contemporary issues in accounting. Students will refine their communication skills in preparation for leadership roles in the accounting profession.

**ACCTNG 5408 Fraud Examination: 3 semester hours**

Prerequisites: ACCTNG 3402 or ACCTNG 5405; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This course is designed for graduate students who are interested in fraud and its effects. Students will be introduced to theoretical concepts of fraud and practical responses to it. Course coverage includes an overview of the fraud problem; prevention and detection of fraud; elements of fraud investigation, interview techniques, fraud types, and laws governing the prosecution of fraud cases.



**ACCTNG 5411 Cost Systems Analysis: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; graduate standing. The development, interpretation, and use of accounting reports and supplementary information for management planning, control and decision making. Emphasizes the application of relevant cost behavior, control and traceability concepts in the preparation of internal accounting reports, with a secondary emphasis upon product costing techniques as appropriate to financial accounting needs. Topics include break-even analysis, operational budgeting, direct costing, absorption costing, standard costs and variance analysis, business segment analysis, responsibility accounting distribution cost accounting, and gross profit analysis.

**ACCTNG 5412 Graduate Topics in Management: Accounting Controllership: 3 semester hours**

Prerequisite: ACCTNG 3411 or ACCTNG 5411; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of advanced managerial accounting techniques useful in facilitating the planning and control process in the modern organization. Emphasis on the implementation and administration of these techniques, their integration with management information systems, and the organizational role of the corporate accountant.

**ACCTNG 5421 Information Systems in Accounting: 3 semester hours**

Prerequisites: MATH 1030; INFSYS 1800; ACCTNG 2410; ACCTNG 3401; a minimum campus GPA of 2.0; graduate standing. This is a professional-level course in accounting information systems. The course includes examination of transaction cycles, structured analysis and design of accounting information systems, and internal controls.

**ACCTNG 5435 Graduate Topics in Auditing: 3 semester hours**

Prerequisite: ACCTNG 4435; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of advanced auditing and attestation issues, with an emphasis on operational auditing. Topics include professional ethics, risk analysis, internal control, fraud detection, analytical procedures, determining and assessing operational objectives, and reporting and implementing audit findings.

**ACCTNG 5436 Systems Auditing: 3 semester hours**

Prerequisite: ACCTNG 5400, INFSYS 6800 or consent of instructor. Study of techniques involved in the control and audit of computer-based systems. Emphasis on the review of internal controls at operational and administrative levels and on computer-assisted audit techniques.

**ACCTNG 5441 Tax Research: 3 semester hours**

Prerequisite: Acctng 3441; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; or consent of instructor. Application of the research tools and methods available to resolve questions pertaining to the tax laws. Addresses techniques for locating and evaluating relevant authority. Students will be expected to complete written tax research memos. A basic understanding of federal income tax law is presumed.

**ACCTNG 5446 Advanced Topics in Taxation: 3 semester hours**

Prerequisites: ACCTNG 3441. Address advanced topics in taxation selected by the instructor.

**ACCTNG 5447 Taxation of Individuals and Businesses: 3 semester hours**

Prerequisites: MATH 1030; ACCTNG 3401 or both ACCTNG 5400 and FIN 6590 with the topic "Practice of Personal Financial Planning" with grades of B or better in both; graduate standing. This is the first professional-level course in taxation. The course includes a general introduction to the concepts of taxation. It will enable students to understand the role of taxes in evaluating decisions typically confronted by individual taxpayers and businesses.

**ACCTNG 5451 Accounting and Auditing in Governmental and Not-for-Profit Entities: 3 semester hours**

Prerequisite: ACCTNG 3402 and graduate standing; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of accounting for use in the public sector and in not-for-profit organizations. Principles of fund accounting and financial reporting for governmental and not-for-profit entities, as well as auditing in the public sector.

**ACCTNG 5480 International Accounting: 3 semester hours**

Same as INTL BUS 5480. Prerequisites: ACCTNG 3402. Accounting practices for multinational businesses. Discussion of comparative financial accounting practices, the development of international accounting standards, and managerial accounting practices related to multinational operations.

**ACCTNG 5490 Graduate Internship in Accounting: 1-3 semester hours**

Prerequisites: ACCTNG 3401 or ACCTNG 5404; a minimum graduate GPA of 3.0; a minimum GPA of 3.0 in all accounting courses at the 3000-level and above taken at UMSL; consent of supervising instructor and accounting internship coordinator. The student works in an accounting internship that contains sufficient content and rigor to merit graduate credit. The student's program will be monitored by a member of the Graduate Faculty in Accounting. The course requires several meetings with the faculty advisor and a graduate-level written assignment. The course will be graded on a Satisfactory/Unsatisfactory basis. A student who has previously taken ACCTNG 3490 may not take ACCTNG 5490.

**ACCTNG 5491 Contemporary Issues In Accountancy: 3 semester hours**

Prerequisites: ACCTNG 5405 or ACCTNG 3402. This course includes an analysis of contemporary developments in the practice of accountancy or theories underlying it. This course may address topics in accountancy in any area of specialization (financial, cost/managerial, tax, auditing, governmental/NFP) or may examine topics that affect the profession as a whole. Topics will vary. May be repeated for credit when topics are different.

**ACCTNG 5498 Graduate Seminar in Accounting: 3 semester hours**

Prerequisites: To be determined each time the course is offered and to include a minimum 2.0 overall GPA and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Study of selected special problems in accounting. May be repeated for credit with different topics.

**ACCTNG 5499 Individual Research in Accounting: 1-3 semester hours**

Prerequisites: Consent of instructor, department chair and graduate director; a minimum 3.0 graduate GPA; a minimum GPA of 3.0 in all accounting courses at the 3000-level and above taken at UMSL. Special individual research topics in Accounting under the guidance of a specific professor.

**ACCTNG 6441 Graduate Topics in Taxation: 3 semester hours**

Prerequisite: At least a B in ACCTNG 3441 or ACCTNG 5447; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Addresses tax policy topics drawing on literature from accounting, economics, and public finance. Other topics of current interest will be selected by the instructor.

## Adult Education

### Courses

**ADULT ED 4311 Teaching Basic Reading Skills To Adults: 3 semester hours**

A study of the reading process and of the characteristics of adult learners with a focus on instructional techniques and materials useful in upgrading the performance of adults with deficient reading skills.

**ADULT ED 6230 Adult Learning And Development: 3 semester hours**

Prerequisites: ED PSY 6210 or ED PSY 6111, or ADULT ED 6410. A study of how life stage theories and theories of learning pertain to the adult learner. The research bases of these theories will be explored in relationship to instructional practice with adult learners.

**ADULT ED 6404 Seminar In Adult Education Research: 1-10 semester hours**

Prerequisites: ADULT ED 6410 or consent of instructor A review of current research on various topics in the field of adult education. An in-depth study of these research topics will be conducted. Application to the field of adult education will be considered. Special focus will be placed on assessing and improving competency in educational, corporate and community settings.

**ADULT ED 6410 The Adult Learner: 3 semester hours**

This course is designed for those who help adults learn in a variety of settings. A study will be made of the characteristics of Adult Learners and various theories of how they learn, as well as the implications of these characteristics and theories for Adult Education Research, Programming, Curriculum, Planning, and Instructional Practice.

**ADULT ED 6411 History Of Adult Education: 3 semester hours**

Prerequisites: ADULT ED 6410. In this course the historical foundation of the field of Adult Education in America will be studied. This will include the major theorists and their contributions; together with the continuing education of the adult in a progressive social context.

**ADULT ED 6412 Philosophical Foundations Of Adult Education: 3 semester hours**

Prerequisites: ADULT ED 6410 or consent of instructor. A comprehensive, systematic philosophical foundation for adult education. In this course the philosophical underpinnings of the various approaches to the education of adults will be explored. These include the role of the learner, the teacher, and overall objectives within each philosophy.

**ADULT ED 6413 Improvement Of Instruction In Adult Education: 3 semester hours**

Prerequisite: ADULT ED 6410 or consent of instructor. A study of selected methods and instructional techniques appropriate for the teaching of adults. An examination of current research will be made as it relates to the problems of instructing adults.

**ADULT ED 6414 Curriculum Theory And Development In Adult Education: 3 semester hours**

Prerequisite: ADULT ED 6410 or consent of instructor. A study of curriculum theory and its application to adult education. Particular emphasis will be placed on the development of model curricula for various programs in adult education.

**ADULT ED 6415 Adult Literacy Perspectives: 3 semester hours**

Prerequisites: ADULT ED 6410. Students will draw upon a variety of disciplines in considering the ideological, political, economic, moral, and pedagogical dimensions of literacy education. This is significant since popular, as well as scholarly, views of literacy assert its importance to a variety of personal and societal goals. In addition to a theoretical perspective, students will explore practical applications of literacy.

**ADULT ED 6416 Survey Of Adult Distance Education: 3 semester hours**

Prerequisites: ADULT ED 6410. This course is designed as a survey of distance education covering the concept, theories, history, present practice, delivery systems, major issues and future directions of the field of distance learning. Emphasis is on research and practice in the U.S.; however, since much of the literature in the field has been written by educators in other countries, the course will explore topics and issues in distance education from an international perspective, identifying similarities and differences among countries as they relate to adult learning.

**ADULT ED 6417 Multicultural Issues In Adult Education: 3 semester hours**

Prerequisites: ADULT ED 6410. In this course the learners will discuss cultural diversity from an adult education perspective. Topics include cultural self-awareness, challenges/issues in intercultural educational settings, theoretical perspectives of multicultural education, and practioner concerns and strategies for implementing multiculturalism in adult education settings.

**ADULT ED 6418 Assessment In The Adult Classroom: 3 semester hours**

Prerequisites: ADULT ED 6410 and ED REM 6707 or consent of instructor. This course addresses assessing how effectively adult educators are facilitating adult learning. Emphasis will be on knowledge and skills, learner characteristics, and learner reactions to instruction through the use of formative assessment of both student learning and instructional effectiveness in the adult classroom. Special attention will focus this assessment in the adult classroom within educational, corporate, community, and non-formal settings.

**ADULT ED 6419 Developing Intercultural Competence: 3 semester hours**

Prerequisites: ADULT ED 6410. The focus of this course is on intercultural competence theories and concepts designed to build personal, academic, and professional skills. It is intended to enable the individual to function more successfully in a global environment.

**ADULT ED 6420 Survey Of Human Resource Development And Adult Education: 3 semester hours**

Prerequisites: Graduate standing and permission of instructor. This course provides an overview of the fields of human resource development and adult education. The many societal contexts within which the training of adults and organization development occur will be examined. The systems theory that frames a discussion of adult education, training, and organization development is also explored. The unique characteristics of each field will be represented as well as the ways in which the two fields come together along some general concepts: Definitions, philosophies, goals, sponsoring agencies, professional roles, processes, participants, and resources.

**ADULT ED 6424 Intervention Determination In Adult Learning & Human Resource Dev: 3 semester hours**

Prerequisite: ADULT ED 6410. A variety of strategies will be studied with a view to examining systemic problems in workforce and adult learning situations. The determination of interventions for program planning and development is the major focus. As key outcomes for this course, learners will be able to design and develop plans, and distinguish among workplace, community and educational needs that can be met with educational interventions and those that require other, and more appropriate, nontraining solutions. While specifically focused on HRD applications, the content of this course will apply to any educational setting for adults.

**ADULT ED 6432 Teaching In The Community College: 3 semester hours**

This course is designed for students considering a teaching career in the community college. The main emphasis of the course will be to expose students to the unique features of the community college with respect to the special goals of the institution, variety of degree and nondegree programs, and diversity of community college students. A second objective will be to offer a brief review of teaching techniques that will be useful in the community college classroom.

**ADULT ED 6494 Directed Readings In Adult Learning: 1-6 semester hours**

Prerequisites: Graduate Standing, ADULT ED 6410 and consent of instructor. Self-directed learning, as a key concept in Adult Education, is encouraged as a means of understanding the adult experience, both personally and professionally, and is a recognized core competency in the field of Adult Education. This course consists of supervised, independent study into the current research, literature, and issues in the area of Adult Learning. Learners are given the opportunity to meet with other learners and the instructor on a regular basis to share resources, ideas, and to gain feedback.

**ADULT ED 6497 Problems In Adult Education: 1-10 semester hours**

Prerequisite: ADULT ED 6410 or consent of instructor. Independent study on topics in adult education.

**ADULT ED 6540 Comparative International Adult and Higher Education: 3 semester hours**

Prerequisites: ADULT ED 6410 or HIGHERED 6476. A study of lifelong learning as well as adult and higher education with a view to a more global understanding of educational systems. Selected western and non-western educational themes and issues will be viewed from the context of their respective cultures.

**ADULT ED 6990 Internship: 1-10 semester hours**

Prerequisite: ADULT ED 6410 or consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**ADULT ED 7820 Policy Issues in Adult Education: 3 semester hours**

This course should be taken immediately after admittance into the doctoral program. In this course, students will engage in a systematic examination of issues related to adult education. This will include, but not be limited to, legislative policies, delivery systems, and occupational issues. Students will be expected to examine trends in adult education practice and/or related fields.

**ADULT ED 7822 Advance Research in Adult Education: 3 semester hours**

Prerequisites: ADULT ED 7820. This course will build on ADULT ED 7820 in which students will engage in a systematic and critical examination and discussion of research related to adult education and related area topics.

**ADULT ED 7824 Communicating Theory and Practice in Adult Education: 3 semester hours**

Prerequisites: ADULT ED 7822. Students will learn the processes involved in writing for publication. In conjunction with instructor, students will engage in a project that merges theory and practice. Course should be taken the semester before a student enrolls in EDUC 7950.

**Courses****ADULT ED 4311 Teaching Basic Reading Skills To Adults: 3 semester hours**

A study of the reading process and of the characteristics of adult learners with a focus on instructional techniques and materials useful in upgrading the performance of adults with deficient reading skills.

**ADULT ED 6230 Adult Learning And Development: 3 semester hours**

Prerequisites: ED PSY 6210 or ED PSY 6111, or ADULT ED 6410. A study of how life stage theories and theories of learning pertain to the adult learner. The research bases of these theories will be explored in relationship to instructional practice with adult learners.

**ADULT ED 6404 Seminar In Adult Education Research: 1-10 semester hours**

Prerequisites: ADULT ED 6410 or consent of instructor. A review of current research on various topics in the field of adult education. An in-depth study of these research topics will be conducted. Application to the field of adult education will be considered. Special focus will be placed on assessing and improving competency in educational, corporate and community settings.

**ADULT ED 6410 The Adult Learner: 3 semester hours**

This course is designed for those who help adults learn in a variety of settings. A study will be made of the characteristics of Adult Learners and various theories of how they learn, as well as the implications of these characteristics and theories for Adult Education Research, Programming, Curriculum, Planning, and Instructional Practice.

**ADULT ED 6411 History Of Adult Education: 3 semester hours**

Prerequisites: ADULT ED 6410. In this course the historical foundation of the field of Adult Education in America will be studied. This will include the major theorists and their contributions; together with the continuing education of the adult in a progressive social context.

**ADULT ED 6412 Philosophical Foundations Of Adult Education: 3 semester hours**

Prerequisites: ADULT ED 6410 or consent of instructor. A comprehensive, systematic philosophical foundation for adult education. In this course the philosophical underpinnings of the various approaches to the education of adults will be explored. These include the role of the learner, the teacher, and overall objectives within each philosophy.

**ADULT ED 6413 Improvement Of Instruction In Adult Education: 3 semester hours**

Prerequisite: ADULT ED 6410 or consent of instructor. A study of selected methods and instructional techniques appropriate for the teaching of adults. An examination of current research will be made as it relates to the problems of instructing adults.



***ADULT ED 6414 Curriculum Theory And Development In Adult Education: 3 semester hours***

Prerequisite: ADULT ED 6410 or consent of instructor. A study of curriculum theory and its application to adult education. Particular emphasis will be placed on the development of model curricula for various programs in adult education.

***ADULT ED 6415 Adult Literacy Perspectives: 3 semester hours***

Prerequisites: ADULT ED 6410. Students will draw upon a variety of disciplines in considering the ideological, political, economic, moral, and pedagogical dimensions of literacy education. This is significant since popular, as well as scholarly, views of literacy assert its importance to a variety of personal and societal goals. In addition to a theoretical perspective, students will explore practical applications of literacy.

***ADULT ED 6416 Survey Of Adult Distance Education: 3 semester hours***

Prerequisites: ADULT ED 6410. This course is designed as a survey of distance education covering the concept, theories, history, present practice, delivery systems, major issues and future directions of the field of distance learning. Emphasis is on research and practice in the U.S.; however, since much of the literature in the field has been written by educators in other countries, the course will explore topics and issues in distance education from an international perspective, identifying similarities and differences among countries as they relate to adult learning.

***ADULT ED 6417 Multicultural Issues In Adult Education: 3 semester hours***

Prerequisites: ADULT ED 6410. In this course the learners will discuss cultural diversity from an adult education perspective. Topics include cultural self-awareness, challenges/issues in intercultural educational settings, theoretical perspectives of multicultural education, and practitioner concerns and strategies for implementing multiculturalism in adult education settings.

***ADULT ED 6418 Assessment In The Adult Classroom: 3 semester hours***

Prerequisites: ADULT ED 6410 and ED REM 6707 or consent of instructor. This course addresses assessing how effectively adult educators are facilitating adult learning. Emphasis will be on knowledge and skills, learner characteristics, and learner reactions to instruction through the use of formative assessment of both student learning and instructional effectiveness in the adult classroom. Special attention will focus this assessment in the adult classroom within educational, corporate, community, and non-formal settings.

***ADULT ED 6419 Developing Intercultural Competence: 3 semester hours***

Prerequisites: ADULT ED 6410. The focus of this course is on intercultural competence theories and concepts designed to build personal, academic, and professional skills. It is intended to enable the individual to function more successfully in a global environment.

***ADULT ED 6420 Survey Of Human Resource Development And Adult Education: 3 semester hours***

Prerequisites: Graduate standing and permission of instructor. This course provides an overview of the fields of human resource development and adult education. The many societal contexts within which the training of adults and organization development occur will be examined. The systems theory that frames a discussion of adult education, training, and organization development is also explored. The unique characteristics of each field will be represented as well as the ways in which the two fields come together along some general concepts: Definitions, philosophies, goals, sponsoring agencies, professional roles, processes, participants, and resources.

***ADULT ED 6424 Intervention Determination In Adult Learning & Human Resource Dev: 3 semester hours***

Prerequisite: ADULT ED 6410. A variety of strategies will be studied with a view to examining systemic problems in workforce and adult learning situations. The determination of interventions for program planning and development is the major focus. As key outcomes for this course, learners will be able to design and develop plans, and distinguish among workplace, community and educational needs that can be met with educational interventions and those that require other, and more appropriate, nontraining solutions. While specifically focused on HRD applications, the content of this course will apply to any educational setting for adults.

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Prerequisites: ADULT ED 6410 or HIGHERED 6476. A study of lifelong learning as well as adult and higher education with a view to a more global understanding of educational systems. Selected western and non-western educational themes and issues will be viewed from the context of their respective cultures.



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## Air Science

### Courses

**AERO 1001 The Air Force Today: 2 semester hours**

Introduction to contemporary military issues and overall Air Force structure. Professionalism, human rights, and civilian-military relationships are stressed. Leadership laboratory activities designed to develop leadership potential, and includes military customs and courtesies, drill and ceremonies and base visitations.

**AERO 1002 The Air Force Today: 2 semester hours**

Continuation of AERO 1001. Includes strategic offensive and defense forces, general purpose forces, aerospace support forces, and relationships with U.S. Army forces. Individual communicative skills emphasized.

**AERO 2001 The Air Force Way: 2 semester hours****AERO 2002 The Air Force Way: 2 semester hours****AERO 3001 Air Force Management And Leadership: 3 semester hours**

Integrated management course emphasizing the individual as a manager in air force milieu. Motivational and behavioral processes, leadership, communication, and group dynamics covered for development of the junior officer's professional skills as an Air Force officer. Basic managerial processes involving decision-making, utilization of analytic aids in planning, organizing and controlling in a changing environment are emphasized as professional concepts. Classroom activity, three hours per week; leadership laboratory, one hour per week.

**AERO 3002 Air Force Management And Leadership: 3 semester hours**

Continuation of AERO 3001; includes organizational and personal values, management of forces in change, organizational power, politics, and managerial strategy and tactics within context of the military organization. actual Air Force cases used to enhance learning and communication processes. Classroom activity, three hours per week; leadership laboratory, one hour per week.

**AERO 4001 National Security Forces In Contemporary American Society: 3 semester hours**

The armed forces as an integral element of society; American civil-military relations; environmental context in which U.S. defense policy is formulated and implemented; societal attitudes toward the military leader-manager in a democratic society; fundamental values and socialization processes associated with the armed services. Individual and group oral and written reports. Classroom activity, three hours per week; leadership laboratory, one hour per week.

**AERO 4002 National Security Forces In Contemporary American Society: 3 semester hours**

Continuation of AERO 4001. Requisites for maintaining adequate national security forces; political, economic and social constraints on the national defense structure; impact of technological and international developments on strategic preparedness; formulation and implementation of national security policy. Classroom activity, three hours per week; leadership laboratory, one hour per week.

### Courses

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Continuation of AERO 4001. Requisites for maintaining adequate national security forces; political, economic and social constraints on the national defense structure; impact of technological and international developments on strategic preparedness; formulation and implementation of national security policy. Classroom activity, three hours per week; leadership laboratory, one hour per week.

## Anthropology

### Courses

**ANTHRO 1005 Introduction To Biological Anthropology: 4 semester hours**

Topics include evolutionary theory and its development, the evolution/creationist debate. Mendelian & population genetics, the evolutionary place of humans within the animal kingdom, anatomical and behavioral characteristics of primates, fossilization, primate evolution, the human evolutionary fossil record, biological variability in modern humans, race as a biological concept, and applied biological anthropology. In addition to 3 hours of lecture, 1 hour per week is spent in lab classifying ancient human fossils, observing monkeys and apes at the zoo, and doing other projects. Satisfies the Natural Science and Mathematics (SM) breadth of study requirement.

**ANTHRO 1011 Introduction To Cultural Anthropology: 3 semester hours**

Cultural anthropology is the study of human beings as creatures and creators of society. This course is an introduction to that study which aims to demonstrate how the basic concepts and techniques developed by cultural anthropologists help us to understand societies of various degrees of complexity, including our own. We will consider topics such as language, kinship, gender, ethnicity, economics, politics, religion, and social change in a broad comparative framework. Major goals are an increased awareness of the social and cultural dimensions of human experience; the diversity and flexibility of human cultures; and processes of intercultural communication and conflict. This course satisfies the Cultural Diversity Requirement.

**ANTHRO 1019 Introduction To Archaeology: 3 semester hours**

Archaeology is a subfield of anthropology that studies past human societies from their material remains. Explores the development of archaeology as a scientific discipline. Archaeological methods and theories will be explained using case studies from the continents of Africa, Asia, Australia, Europe and the Americas. Satisfies the Cultural Diversity requirement.

**ANTHRO 1021 The Body In Culture: 3 semester hours**

This course will compare uses of the body as a social signifier in Western and non-Western cultures. It will explore how culture shapes the images, uses and meanings of the human body. It concentrates on different historical and beliefs in five areas: how the body works; sex and gender; eating manners and food; pain and punishment; beauty and bodily mutilation. This course satisfies the Cultural Diversity requirement.

**ANTHRO 1025 World Cultures: 3 semester hours**

An ethnographic survey of the major culture areas of the world (Africa, North and South America, Europe and Oceania). Satisfies the Cultural Diversity requirement.

**ANTHRO 1033 World Archaeology: 3 semester hours**

Discusses some of the greatest discoveries in archaeology from prehistoric cultures to ancient civilizations of Africa, Asia, Australia, Europe and the Americas. Archaeological examples may include early human origins at Olduvai Gorge in Tanzania, the pyramids of ancient Egypt, the Maya and Aztec of Mexico, the rise of civilization in Mesopotamia, England's Stonehenge, the Roman city of Pompeii, upper Paleolithic cave paintings in France and Spain, and American Indian pueblos of the Southwest. This introductory course is designed for non-anthropology majors, or for those who are considering the major. Satisfies the Cultural Diversity requirement.

**ANTHRO 1037 The Wonders of Greece: Introduction to Greek History and Culture: 3 semester hours**

Same as HIST 1037. Our democracy and culture have been heavily influenced by Greek civilization. This course will introduce students to the culture and civilization of Greece in order to provide a better understanding of our own society. The course will cover the political and military history, art, literature, philosophy, and science of Greece from prehistoric to modern times, with special emphasis on Greek civilization's enduring democratic and cultural ideals. The course will include screening of films and use of online resources.

**ANTHRO 1038 Byzantine History and Culture: 3 semester hours**

Same as HIST 1038. This course introduces the history of the Byzantine Empire from the fourth through the fifteen centuries. Covering more than a millennium of history, this course focuses on selected aspects of the empire's history, while adhering to a basic chronological frame. We will examine religious developments (monasticism, theological controversy, the Catholic-Orthodox Schism); military and cultural interactions with neighbors (Crusaders, Islam); and Byzantine culture, particularly art, literature, and architecture.

**ANTHRO 1041 Sex And Gender Across Cultures: 3 semester hours**

This course considers womanhood, manhood, third genders, and sexuality in a broad cross-cultural perspective. The focus of the course is on the diverse cultural logics that separate females, males, and sometimes third genders into different groups in different societies, with the male group usually being the more prestigious one. Focusing on the indigenous nonWestern cultures, this course examines gender roles and sexuality within the broader cultural contexts of ritual and symbolism, family, marriage and kinship, economy, politics, and public life. This course will help students understand what it is like to be male or female in non-Western cultures. This course fulfills the Cultural Diversity Requirement.

**ANTHRO 1051 Sport, Culture, and Society: 3 semester hours**

Same as SOC 1051. What is the relationship between sport, culture, and society? This course takes a critical and analytical approach to the relationship between sport and socio-cultural issues and institutions: values, education, socialization, deviance, violence, inequality, the mass media, and economics. Students will investigate the functions of sport in various cultures and societies, analyze the relationship between sport and social problems, and develop policy recommendations that address these issues.

**ANTHRO 1052 The Olympic Games: Ideals And Reality: 3 semester hours**

What would the ancient Greeks think of the modern Olympic Games? In this course, we examine whether the Olympic Games are living up to their ancient Greek ideals. We begin studying the history and philosophy of the ancient Olympic festival in an effort to understand the personal, educational, and political nature of the Olympic ideal. Next we examine the historical and contemporary reality of the modern Games from the perspective of athletes, spectators, and society at large. Based on these accounts, we critically evaluate the Games' success and failure with respect to their ideals. Finally, we develop constructive solutions to the problems we identify, suggesting practical ways to revise the Olympic ideals and/or improve Olympic reality.

**ANTHRO 1091 Introductory Topics In Anthropology: 3 semester hours**

This course features special and current topics at the introductory level in the areas of social, cultural and physical anthropology and archaeology. The course examines the basic concepts and provides an understanding of the development of new trends and areas of study in the field of Anthropology. Topics will focus on the comparative study of non-Western cultures such as ecological practices in tribal societies; religious practices in prehistoric cultures; the roles of women across cultures; etc. Topics may vary and the course may be repeated provided topic is different. This course satisfies the Cultural Diversity requirement.

**ANTHRO 1095 Brief Overview Of The Four Fields Of Anthropology: 1 semester hour**

Through the use of videos, readings, and the online course management system, this course provides a brief overview of the four traditional fields of anthropology: biological, archaeological, cultural, and linguistic anthropology. This course is designed for video instruction and offers minimal direct interaction with the instructor.

**ANTHRO 1163 Disagreement, Difference, Diversity: 6 semester hours**

Same as PHIL 1163. This interdisciplinary course will combine material from philosophy, anthropology, and sociology to examine the ways we encounter and accommodate disagreement in our daily lives. The unifying thread is our ability to deal with various sorts of opposition: differences of opinion, differences in practice, and differences in how we construct and address both biological and cultural variation. The course will combine units on informal logic and applied ethics from philosophy together with units on the social construction of difference and the understanding of human diversity from anthropology and sociology.

**ANTHRO 1710 Native American Literature: 3 semester hours**

The course surveys the literature of American Indians from its oral tradition of myth, legend, song, and oratory through its modern forms. The course satisfies the ethnic literature requirement for Missouri State Certification in Secondary Education and the College of Arts and Sciences Cultural Diversity requirement.

**ANTHRO 2035 Ancient Greek Civilization And Culture: 3 semester hours**

A survey of the history, language, literature, art, science, and philosophy of the ancient Greeks from prehistory to the Roman conquest. It covers the glamorous Minoan-Mycenaean civilization, the rise of classical Greek civilization and the golden age, the history of the city states such as Athens and Sparta, and the Hellenistic period under Alexander the Great and his descendants. Examines the nature of the ancient Greek language, surveys literary classics such as the Iliad and the Odyssey, and describes the archaeology of Greek myths based on the ongoing UM-St. Louis archaeological project in Greece. Discusses the rise of humanism, the ancient Olympic Games, and the legacy of ancient Greece in Western civilization.

**ANTHRO 2100 Languages and World View: 3 semester hours**

Same as FGN LANG 2100 and SOC 2200 Prerequisites: Completion of two semesters of one foreign language at the college level. This course investigates the extent to which peoples' linguistic and cultural background informs their understanding of the world. Experts on a variety of major Western and non-Western languages will introduce students to differences in ideas about time, space, human relationships, and other issues based on language. The course will also analyze common cultural misunderstandings among native speakers of English and speakers of other languages.

**ANTHRO 2105 Human Variation: 3 semester hours**

This course will look at the variation that exists within our own species, both between and within populations. It will investigate the evolutionary and genetic basis of human variation, as well as its diversity, adaptive significance, and distribution. Topics covered will include: body shape and physiology, blood groups, susceptibility to disease, and skin color. It will survey historical attempts to classify humans into different "races"; assess definitions of race as a solely cultural construct; and critique attempts to link race, intelligence and performance.

**ANTHRO 2109 Archaeological Field School: 3-6 semester hours**

Prerequisites: Consent of instructor. Introduction to field methods in archaeology and to the techniques of recording, storing, analyzing, and reporting archaeological findings. Experience is gained through participation in a field research project including excavation and survey projects. Emphasis is placed upon research design and implementation and upon the use of archaeological data in describing and explaining human behavior.

**ANTHRO 2111 Cultures Of East Asia: 3 semester hours**

An ethnographic and historical survey of the various people of East Asia including Japan, China, North and South Korea, Hong Kong and Macau. Includes an examination of the varying cultural and social developments within and through the historical, geographical, and cultural environments. This course satisfies the Cultural Diversity requirement.

**ANTHRO 2114 Cultures Of The Near And Middle East: 3 semester hours**

A study of the cultural diversity and unity of the peoples of the Near and Middle East. Emphasis on historical and ethnological relationships, social and political structure, religious beliefs and contemporary problems. This course satisfies the non-Euro-American requirement.

**ANTHRO 2117 Greek History And Culture: 3 semester hours**

Same as HIST 2117. Greek civilization has had a deep impact on contemporary society in art; social; political; and economic organization; philosophy; law; medicine; and science. This course covers major aspects of Greek history and culture from antiquity to the present. It considers the major political and military events of Greek history, as well as important aspects of Greek culture, including sports and the history of the Olympic Games, literature, philosophy, and mythology.

**ANTHRO 2118 Modern Greek History and Culture: 3 semester hours**

Same as HIST 2118. A history of Modern Greece, from the fall of Constantinople (1453) to the present, with an emphasis on social, cultural, and political developments. The course will provide a chronological framework of events and it will utilize art, literature, and folklore, along with traditional historical sources, to gain a better understanding of the richness of modern Greek history and culture.

**ANTHRO 2120 Native Peoples Of North America: 3 semester hours**

A survey of Native Peoples of North America including the prehistory, ethnographic and linguistic groupings, social organization, and cultural systems of these cultures.

**ANTHRO 2121 Native American Spirituality: 3 semester hours**

This class will look at the important role of spirituality in American Indian ways of life. This course covers indigenous peoples of the United States and Canada, from prehistoric times to the present. It will look at traditional worldviews and their preservation in contemporary times, including the use of symbols to define tribal identities; religious rituals and practices; and the relationship between humans, animals, and nature. Satisfies Cultural Diversity requirement.

**ANTHRO 2123 Cultures Of Oceania: 3 semester hours**

An introduction to the original cultures and peoples of the South and Western Pacific: New Guinea, Australia, New Zealand, Samoa, Hawaii, Easter Island, etc. Focus is on art, religion, language, relationships to the environment, economics, politics, social groupings, and how these intertwine to form distinctly adaptive cultures in one of the least understood regions of the world. This course satisfies the Cultural Diversity requirement.

**ANTHRO 2124 Cultures Of Africa: 3 semester hours**

A basic ethnographic survey of African cultures, with attention to social groupings, tribalism, religion, language, social change, and the ecological relationship between humans and nature. This course satisfies the Cultural Diversity requirement.

**ANTHRO 2126 Archaeology Of Greater St Louis: 3 semester hours**

Discussion of Ice Age hunters and gatherers, moundbuilders, fur traders, farmers and industrial workers from the history of the Greater St. Louis Community. The physical testimony to their lives remains buried beneath city streets and buildings. Archeology is our link to this cultural legacy. Through use of archeological data and historical sources, this class will explore human social and cultural developments in St. Louis.

**ANTHRO 2131 Archaeology Of Missouri: 3 semester hours**

An introduction to the prehistoric American Indian cultures of Missouri and adjacent areas from 20,000 years ago to the coming of the Europeans. Examines the development of prehistoric cultures in Missouri from small bands of hunters and gatherers to moundbuilding, agricultural societies and discusses the decline of indigenous cultures as they came into contact with European civilization. Satisfies the Cultural Diversity requirement.

**ANTHRO 2132 Archaeology Of North America: 3 semester hours**

Examines the archaeological record of human developments throughout prehistoric North America. Topics of discussion include the origins of human culture in America, the processes of prehistoric cultural development in the different regions of the continent, and archaeological approaches to explaining the behavior of North America's prehistoric inhabitants. Satisfies the Cultural Diversity requirement.

**ANTHRO 2134 Archaeology Of The Inca, Aztec, And Maya: 3 semester hours**

Provides an overview of human social and cultural developments in Mesoamerica and Andean South America from the first settlements over 20,000 years ago to the Spanish conquest. Focuses on events leading to and including the establishment of Classic Mayan and Aztec societies, and discusses changes that led to what was perhaps the largest nation on earth for its time, the Inca. Satisfies the Cultural Diversity requirement.

**ANTHRO 2191 Special Topics In Non-Western Culture: 3 semester hours**

This course focuses on a specific non-western culture, or geographically related groups of cultures. Ethnographic and/or archaeological cultures are chosen and their ecological, economic, social, religious, cosmological, political, ethnic, linguistic and other cultural domains are examined. Students are exposed to basic concepts and knowledge for understanding diverse cultures in their historical and/or contemporary contexts of development and relationship. Topics will vary. Satisfies Cultural Diversity Requirement.

**ANTHRO 2192 Anthropological Perspectives on Western Culture: 3 semester hours**

This course focuses on a specific Western culture or geographically-related group of cultures utilizing ethnographic and/or archaeological sources. Ecological, economic, social, political, ethnic, religious, linguistic and cultural domains will be examined. Students are exposed to basic anthropological concepts for understanding diverse cultures in their historical and/or contemporary contexts. Topics will vary.

**ANTHRO 3202 History and Theory of Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1005, ANTHRO 1006, ANTHRO 1011, or ANTHRO 1019. An overview of the history and theory of anthropology from the Victorian era to today with an emphasis on putting theory into practice. The purpose of the course is to help students understand where anthropology has come from and where it may be going, and to teach students how to apply theory to specific questions and problems.

**ANTHRO 3209 Forensic Anthropology: 4 semester hours**

Same as CRIMIN 3209. Prerequisites: ANTHRO 1005, or BIOL 1102, or junior standing, or consent of instructor. Students learn basic dental and skeletal anatomy and the methods used by biological anthropologists and archaeologists to collect and analyze human skeletal remains, including how to determine age and sex of skeletal remains, identify ethnic markers, determine stature and handedness, and identify the presence of trauma and/or pathology. Also covers the role of the forensic anthropologist in crime scene investigations and human rights issues. In the weekly lab section students will have an opportunity for hands-on application of techniques to analyze skeletal remains.

**ANTHRO 3210 Applied Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. A description and analysis of the methods, principles and use of anthropology in solution of practical problems associated with the changing conditions of our times. The course will examine a wide variety of cross-cultural case studies.



**ANTHRO 3211 Language and Society: 3 semester hours**

Same as SOC 3211. Prerequisites: ANTHRO 1011, or SOC 1010 or consent of the instructor. Variable topics in the subfield of linguistic anthropology will be explored. The focus of the course may include study of communication as part of our evolutionary heritage, the use of language as an index of social and cultural change, language and gender, or other topics.

**ANTHRO 3212 Medical Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science or consent of instructor. An examination of the growing interaction between anthropology and medicine, and the increasing use of anthropologists in medical and health-care settings. In addition to teaching current theory in medical anthropology, the course focuses on anthropologically-based skills essential to those working in health-related fields.

**ANTHRO 3214 Writing Systems of the World: 3 semester hours**

ANTHRO 1011 or consent of instructor. This course is an introduction to the comparative study of writing systems from around the world. It explores the origin and development of Sumerian cuneiform, Mayan glyphs, Egyptian hieroglyphs, Chinese characters, alphabets and syllabaries. It encompasses time periods from the decipherment of ancient languages to the intersections of writing and culture found in the contemporary world.

**ANTHRO 3215 Aging Across Cultures: 3 semester hours**

Same as GERON 3215. Prerequisites: ANTHRO 1011 or PSYCH 1003 or SOC 1010, or consent of instructor. This course examines the wide ranging variability in the roles of older people across different cultures and the effects these have on older people, their families, and their societies.

**ANTHRO 3216 Cognition Across Cultures: 3 semester hours**

Prerequisites: ANTHRO 1011 or introductory course in another social science, or consent of instructor. This course explores cognition - perception, knowledge and thought - as a set of social and cultural processes. An introduction to methods for understanding the human mind in context. It will cover key debates, including: cross-cultural variation in thought processes (cognitive relativity vs. psychic unity), the relation between physiology and consciousness, ethnoscience, the social and cultural construction of reality, the different ways that social contexts affect the way people think, the implications of the way knowledge is distributed across society, the social and cultural basis of logic.

**ANTHRO 3220 Social Statistics: 3 semester hours**

Same as SOC 3220. Prerequisites: SOC 1010 or ANTHRO 1011 and MATH 1020 or MATH 1030. Issues and techniques of statistical analyses relevant to quantitative social science research, e.g. elementary probability, measures of central tendency and dispersion, measures of relationships including linear regression and correlation, inferential and nonparametric statistics. The course includes an introduction to computer-based statistical analysis.

**ANTHRO 3225 Ritual, Death And Sports: Archaeology Of Greek Mythology: 3 semester hours**

Prerequisites: ANTHRO 1019 or ANTHRO 1011 or consent of instructor. Since the beginning of our existence, humans have pondered the mysteries of life and death and have strived to find meaning in a constantly changing world. In Western civilization, Greek mythology and religion represent humanity's earliest attempts to deal with the greater forces that affect our lives, which found expression in the great religious and athletic festivals, such as the Olympic Games. We will study the myths, rituals, religious beliefs of the ancient Greeks and how these were expressed in sports and art, in order to get a glimpse of the supernatural. The sources of our exploration are two: the fascinating archaeological discoveries of ancient Greek sites and relevant readings from the ancient Greek literature.

**ANTHRO 3227 Monsters & Victims: Women Dramatis Personae in Greek Tragedy & Contemporary Drama: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. This course explores female dramatic figures in ancient Greek tragedies that represent women either as victims and/or monsters. From Iphigenia, Alcestis, and Hecuba to Clytemnestra, Phaedra and Medea, it analyzes issues such as the role of sex, gender, female sexuality, ritual and domestic violence in the image-making of women as either scapegoats or monsters by the major Greek tragedians, particularly Euripides. It explores contemporary adaptations by several women playwrights in light of theoretical readings by feminist critics.

**ANTHRO 3228 People and Plants: 3 semester hours**

Prerequisites: ANTHRO 1011 or ANTHRO 1019 or consent of instructor. This course is designed to introduce students to complex relationships between people and plants. We will focus on how plants are perceived, managed, and used across human societies. Topics span the ages and include collection of wild plants and "Stone Age" diets; the origins of agriculture in Ancient Egypt, Mesopotamia, China, and the Americas; the development of crops and GMOs; industrial agriculture; organic gardening; and the wilderness-to-table movement. While emphasis will be on food plants, we will also discuss the use of plants as medicines, cosmetics, dyes, and construction materials.

**ANTHRO 3229 Economic Archaeology And Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011 or ANTHRO 1019 or consent of instructor. Course examines economic organization and behavior in a crosscultural context. It looks at the various ways anthropologists have approached the study of economy, and explores how cultural factors such as relations of power, gender, kinship, and ideology affect economic organization in ancient and modern societies. Most of the course will focus on pre-industrial societies (including hunter-gather, tribal, and complex societies), and will address issues of subsistence strategies, craft production and specialization, trade and exchange, money, and markets. It will also briefly explore how modern communities around the globe are responding to contemporary processes like capitalism and globalization.

**ANTHRO 3235 Women In Sub-Saharan Africa: A Contemporary Perspective: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. Examines important traditional concerns of anthropologists such as the nature of kinship obligation and privilege; gender as a basis for the division of labor; social organization for formal and informal networks; and ritual and ceremony. In addition we look closely at the changing role of African women, as related by African women testing the very limits of what is "socially and culturally acceptable." The roles women continue to play in politics, comprehensive development (i.e. cultural and economic), and evolving social structures are reviewed to gain an understanding of the historical and contemporary mandates for their social action. This course fulfills the Cultural Diversity requirement.

**ANTHRO 3236 Sex Trafficking in Cross-Cultural Perspective: 3 semester hours**

Prerequisites: ANTHRO 1041, GS 2150 or GS 2102 or consent of instructor. This course introduces the history of and current issues in the international sex industry, including human trafficking, slavery, and prostitution in Europe, Asia, Africa, South America, and North America. It will evaluate the power structures (political, economic, and military institutions) and the process, organization and structure of the industry within the context of nationality, ethnicity, and class, with particular emphasis on voluntary (immigration) and forced (displacement) population migration. Finally, it will look at current legislation and methods to control this growing problem, especially in the United States.

**ANTHRO 3237 Japanese Popular Culture: 3 semester hours**

Same as SOC 3237. Prerequisites: ANTHRO 1011. Through biographies, fiction, films, anime, manga, television, music, magazines, and other media, the course investigates a range of topics related to Japanese history, social diversity, subcultural identity, gender, demographic change, and media. The study of Japanese popular culture is ideal for understanding theoretical issues such as the construction of gender and sexuality, identity formation, nationalism, emerging youth cultures, and the processes of globalization and localization. Satisfies University cultural diversity requirements.

**ANTHRO 3270 Human Ecology, Cultural Collapse, and Sustainable Developments: 3 semester hours**

Prerequisites: ANTHRO 1019 or consent of the instructor. Human interactions with the natural environment will be explored by reviewing approaches, concepts, and tools from ecological anthropology and archaeology. Case studies based on archaeological, ethnographic, and ethnological data will be analyzed and discussions expanded to include information about past and present, sustainable human-environmental interactions, policies, and contributing institutions.

**ANTHRO 3290 Advanced Topics In Archaeology: 3 semester hours**

Prerequisites: ANTHRO 1019, or consent of instructor. Selected topics in archeology with a strong theoretical and methodological approach. Requires substantial reading and writing. May be repeated with consent of department.

**ANTHRO 3291 Current Issues In Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. Selected topics in social, cultural and physical anthropology, with emphasis on current issues and trends in the field of anthropology. May be repeated provided topic is different.

**ANTHRO 4000 Ethnographic Field Research Methods: 3 semester hours**

Prerequisites: ANTHRO 1011, SOC 1010, or consent of Instructor. Ethnographic field research is the basis of cultural anthropological inquiry. This course emphasizes hands-on training in the collection and analysis of ethnographic data, including participant observation, taking and managing field notes, key informant interviewing, content analysis and the preparation of ethnographic field reports.

**ANTHRO 4005 Special Research Methods in Cultural Anthropology: 1-3 semester hours**

Prerequisites: ANTHRO 1011 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in cultural anthropology and/or linguistic anthropology. May be repeated provided the topic is different.

**ANTHRO 4100 Field Methods in Archaeology: 3 semester hours**

Prerequisites: ANTHRO 1019 or consent of instructor. Advanced instruction in archaeological field methods including techniques of recording, storing, analyzing, and reporting archaeological findings. Experience is gained through participation in excavations and/or surveys. Emphasis is placed upon research design and implementation and the use of archaeological data in describing and explaining human behavior.

**ANTHRO 4105 Special Research Methods in Archaeology: 1-3 semester hours**

Prerequisites: ANTHRO 1019 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in archaeology. May be repeated provided the topic is different.

**ANTHRO 4160 Geographical Information Systems in Anthropology and Sociology: 4 semester hours**

Same as SOC 4160. Prerequisites: ANTHRO 1005, or ANTHRO 1011, or ANTHRO 1019, or SOC 1010, or consent of instructor. Instruction in use of GIS software to record and analyze findings in archaeology, biological anthropology, cultural anthropology, and sociology. Emphasis is placed upon research design, development of data collection methodologies, and the use of GIS in describing and explaining human behavior and its relationship to the physical environment.

**ANTHRO 4200 Field Methods in Biological Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1006, SOC 3220 or equivalent, or consent of instructor. Course material based on primate behavior, demographics, and morphology. Research techniques for ethological and primatological studies, including the design of research protocols, development of data collection methodologies, analysis of morphological and behavioral data, and the scientific description of findings. Students are required to conduct observations of primates at the St. Louis Zoo and participate in the Undergraduate Research Symposium.

**ANTHRO 4205 Special Research Methods in Biological Anthropology: 1-3 semester hours**

Prerequisites: ANTHRO 1005 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in biological anthropology. May be repeated provided the topic is different.

**ANTHRO 4305 Special Research Methods in Anthropology: 1-3 semester hours**

Prerequisites: ANTHRO 1005 or ANTHRO 1011 or ANTHRO 1019 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in anthropology and may combine skills from cultural anthropology, linguistic anthropology, archaeology, and/or biological anthropology. May be repeated provided the topic is different.

**ANTHRO 4307 Community Based Research in Anthropology: 3 semester hours**

Prerequisites: Junior standing, ANTHRO 1011, ANTHRO 3202, and completion of junior-level writing requirement. An advanced course in qualitative/ethnographic modes of inquiry, building on research and analytical skills learned in previous courses. Some quantitative methods may supplement the research when appropriate. Students experience the process of discovery, representation, presentation, and justification based on fieldwork and/or archival research. The focus is on applying anthropological knowledge to practical issues faced by communities and institutions in the St. Louis area. May be repeated provided the topic is repeated.

**ANTHRO 4309 Archaeological Field School: 3-6 semester hours**

Prerequisites: Consent of instructor. Advanced methods in field archaeology and laboratory analysis. Emphasis is placed on sampling, the use of theory in guiding field and laboratory work, advanced field techniques, and speciality analysis. Opportunities are provided for the development of field and laboratory leadership skills. Independent research is encouraged.

**ANTHRO 4310 Laboratory Methods In Archaeology: 3 semester hours**

Prerequisites: ANTHRO 1019, SOC 3220 or equivalent, or consent of instructor. An advanced laboratory analysis and curation methods class. The emphases are 1) mastery of general lab methods and procedures, and 2) development of independent analysis skills in one or more speciality areas such as lithics, ceramics, computer graphics, statistical methods, paleoethnobotany, experimental analysis, and soils.

**ANTHRO 4312 Cultural Resource Management And Historic Preservation: 3 semester hours**

Prerequisites: ANTHRO 1019 or Consent of Instructor. This course will introduce proper practices of cultural resource management and historic preservation. It provides a technical and theoretical bridge between anthropological archaeology and its application to the management of resources. Among the issues covered will be relevant legislation, the phased approach to archaeological and historical research, state and federal review procedures, proposal writing, interacting with clients, consulting with native peoples, and public and professional ethics and standards. This course will provide hands-on experience. Because one of the skills most sought by project managers and employers is writing competence, it will be writing intensive.

**ANTHRO 4315 Professionalism and Practice In Anthropology: 3 semester hours**

Prerequisites: Senior standing and consent of Instructor. The capstone course for anthropology majors, ideally taken in the final semester of the senior year. Students will learn to apply the anthropological knowledge and ethics gained in previous courses within professional settings. Skills include developing a CV; applying to graduate schools and jobs; making oral presentations; and writing grant proposals, public policy recommendations, consulting reports, and diplomatic communications. Final senior exit project will be reviewed by Anthropology faculty members.

**ANTHRO 4316 Senior Research Project: 3 semester hours**

Prerequisites: Senior standing and consent of the instructor. For undergraduates who have excelled in their coursework and wish to conduct original research. Students will work with a faculty member with expertise relevant to the research topic. This course offers students the opportunity to build upon strong research, analytic and writing skills. Completion of this course will result in the writing of a thesis, publication of an article, presentation at a professional meeting, or other work that exemplifies high achievement.

**ANTHRO 4325 Internship In Cultural Anthropology: 1-3 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate public or private institution, business, or government office. Cultural Anthropology internships are aimed at providing students with opportunities to learn to apply their knowledge of social and cultural process and diversity to practical situations in the market place of ideas, goods, and services. Specific placements will be selected to match student's interests and career goals.

**ANTHRO 4326 Internship In Archaeology: 1-6 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate public or private institution, business, or government office. Archaeology internships are aimed at providing students with opportunities to work with professional archaeologists in public and private research environments including laboratories and curation centers. Specific placements will be selected to match student's interests and career goals.

**ANTHRO 4328 Internship In Museum Studies: 1-3 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate museum or other exhibition oriented institution. Museum internships are aimed at providing students with opportunities to work with professional museologists to learn skills relating to areas such as exhibition, curation, public programming, research, and publication. Specific placements will be selected to match student's interests and career goals.

**ANTHRO 4329 Internship In Physical Anthropology: 1-3 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate institution, lab, or research setting related to forensics, primate behavior and biology, human genetics, population, environmental policy, and other domains related to physical anthropology.

**ANTHRO 4350 Special Study: 1-3 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports, or field research. No student may take more than a cumulative total of 6 hours of Special Study.

**ANTHRO 4391 Current Issues In Anthropology: 1-4 semester hours**

Prerequisite: ANTHRO 1011 or consent of instructor. Selected topics in social, cultural, and physical anthropology, with emphasis on current issues and trends in the field of anthropology. May be repeated. Non-majors may register for ANTHRO 2191.



**ANTHRO 5440 Cultural Aspects Of Aging: 3 semester hours**

Same as GERON 5440. Prerequisites: Graduate status or consent of the instructor. Focuses on the variety of solutions encountered in different sociocultural contexts for dealing with the problems, challenges and opportunities of growing old. It is organized around topics that are of concern to both anthropology and social gerontology: the status of the aged, intergenerational relations, aging in modernizing societies, ethnic dimensions of aging in complex societies, health in later life, death and dying. Both in-depth case studies and cross-cultural comparisons are examined in an effort to arrive at a culturally informed assessment of factors affecting aging and the aged in the United States.

**ANTHRO 5592 The History of the Visual Arts in American Museums: 3 semester hours**

Same as HIST 5592 and ART HS 5592. Prerequisites: Graduate standing and consent of instructor. This course is an introduction to selected topics in the history of museology, focusing on art and anthropology museums as sites for the interpretations of art and culture, and as contested meeting grounds for various views of history and culture.

**ANTHRO 6135 Foundations Of Museology I: 3 semester hours**

Same as ART HS 6035 and HIST 6135. Prerequisites: Consent of Director of Museum Studies Program. Concepts for understanding museums in their social and cultural context; history of museums; museology and general social theory; information transfer vs. meaning-making models; museums and communities; the changing role of museums; museums as complex organizations; process models of museology.

**ANTHRO 6136 Foundations Of Museology II: 3 semester hours**

Same as ART HS 6036 and HIST 6136. Prerequisites: Consent of Director of Museum Studies Program. Audience-centered approaches to museology; visitor research and learning theory; philosophical and practical considerations in museum planning; the physical design of museums; creativity; exhibit and program development; collections and curation; the challenge of diversity; the future of museums.

**ANTHRO 6137 Museum Organization and Operations: 3 semester hours**

Same as: ART HS 6037 and HIST 6137. Prerequisites: Consent of Director of Museum Studies Program. This course looks at museum organization and operations in the 21st century. As museums become more focused on visitors, communities, and private donors, their structures, staffing, and practices have changed. This course introduces students to the wide range of museum professions, the evolving function of museums, the effects of new technologies, and the challenges of administration and funding in constrained economic circumstances. The course includes scrutiny of ethical issues such as disputed collections, intellectual property rights, organizational conflicts, and community collaboration and planning.

**ANTHRO 6138 Museum Studies Master's Project: 4 semester hours**

Same as ART HS 6038 and HIST 6138. Prerequisites: Consent of Director of Museum Studies program. Research and writing/exhibit development on a selected topic.

**ANTHRO 6139 Practicum In Exhibit & Program Development: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. Development of exhibits and related education programs. Students work as teams with museum professionals to develop and implement an exhibit concept that integrates design, education, and marketing from the onset. Methods in planning, flow charting, budgeting, team dynamics and related skills.

**Courses****ANTHRO 1005 Introduction To Biological Anthropology: 4 semester hours**

Topics include evolutionary theory and its development, the evolution/creationist debate. Mendelian & population genetics, the evolutionary place of humans within the animal kingdom, anatomical and behavioral characteristics of primates, fossilization, primate evolution, the human evolutionary fossil record, biological variability in modern humans, race as a biological concept, and applied biological anthropology. In addition to 3 hours of lecture, 1 hour per week is spent in lab classifying ancient human fossils, observing monkeys and apes at the zoo, and doing other projects. Satisfies the Natural Science and Mathematics (SM) breadth of study requirement.

**ANTHRO 1011 Introduction To Cultural Anthropology: 3 semester hours**

Cultural anthropology is the study of human beings as creatures and creators of society. This course is an introduction to that study which aims to demonstrate how the basic concepts and techniques developed by cultural anthropologists help us to understand societies of various degrees of complexity, including our own. We will consider topics such as language, kinship, gender, ethnicity, economics, politics, religion, and social change in a broad comparative framework. Major goals are an increased awareness of the social and cultural dimensions of human experience; the diversity and flexibility of human cultures; and processes of intercultural communication and conflict. This course satisfies the Cultural Diversity Requirement.

**ANTHRO 1019 Introduction To Archaeology: 3 semester hours**

Archaeology is a subfield of anthropology that studies past human societies from their material remains. Explores the development of archaeology as a scientific discipline. Archaeological methods and theories will be explained using case studies from the continents of Africa, Asia, Australia, Europe and the Americas. Satisfies the Cultural Diversity requirement.

**ANTHRO 1021 The Body In Culture: 3 semester hours**

This course will compare uses of the body as a social signifier in Western and non-Western cultures. It will explore how culture shapes the images, uses and meanings of the human body. It concentrates on different historical and beliefs in five areas: how the body works; sex and gender; eating manners and food; pain and punishment; beauty and bodily mutilation. This course satisfies the Cultural Diversity requirement.

**ANTHRO 1025 World Cultures: 3 semester hours**

An ethnographic survey of the major culture areas of the world (Africa, North and South America, Europe and Oceania). Satisfies the Cultural Diversity requirement.

**ANTHRO 1033 World Archaeology: 3 semester hours**

Discusses some of the greatest discoveries in archaeology from prehistoric cultures to ancient civilizations of Africa, Asia, Australia, Europe and the Americas. Archaeological examples may include early human origins at Olduvai Gorge in Tanzania, the pyramids of ancient Egypt, the Maya and Aztec of Mexico, the rise of civilization in Mesopotamia, England's Stonehenge, the Roman city of Pompeii, upper Paleolithic cave paintings in France and Spain, and American Indian pueblos of the Southwest. This introductory course is designed for non-anthropology majors, or for those who are considering the major. Satisfies the Cultural Diversity requirement.



***ANTHRO 1037 The Wonders of Greece: Introduction to Greek History and Culture: 3 semester hours***

Same as HIST 1037. Our democracy and culture have been heavily influenced by Greek civilization. This course will introduce students to the culture and civilization of Greece in order to provide a better understanding of our own society. The course will cover the political and military history, art, literature, philosophy, and science of Greece from prehistoric to modern times, with special emphasis on Greek civilization's enduring democratic and cultural ideals. The course will include screening of films and use of online resources.

***ANTHRO 1038 Byzantine History and Culture: 3 semester hours***

Same as HIST 1038. This course introduces the history of the Byzantine Empire from the fourth through the fifteen centuries. Covering more than a millennium of history, this course focuses on selected aspects of the empire's history, while adhering to a basic chronological frame. We will examine religious developments (monasticism, theological controversy, the Catholic-Orthodox Schism); military and cultural interactions with neighbors (Crusaders, Islam); and Byzantine culture, particularly art, literature, and architecture.

***ANTHRO 1041 Sex And Gender Across Cultures: 3 semester hours***

This course considers womanhood, manhood, third genders, and sexuality in a broad cross-cultural perspective. The focus of the course is on the diverse cultural logics that separate females, males, and sometimes third genders into different groups in different societies, with the male group usually being the more prestigious one. Focusing on the indigenous nonWestern cultures, this course examines gender roles and sexuality within the broader cultural contexts of ritual and symbolism, family, marriage and kinship, economy, politics, and public life. This course will help students understand what it is like to be male or female in non-Western cultures. This course fulfills the Cultural Diversity Requirement.

***ANTHRO 1051 Sport, Culture, and Society: 3 semester hours***

Same as SOC 1051. What is the relationship between sport, culture, and society? This course takes a critical and analytical approach to the relationship between sport and socio-cultural issues and institutions: values, education, socialization, deviance, violence, inequality, the mass media, and economics. Students will investigate the functions of sport in various cultures and societies, analyze the relationship between sport and social problems, and develop policy recommendations that address these issues.

***ANTHRO 1052 The Olympic Games: Ideals And Reality: 3 semester hours***

What would the ancient Greeks think of the modern Olympic Games? In this course, we examine whether the Olympic Games are living up to their ancient Greek ideals. We begin studying the history and philosophy of the ancient Olympic festival in an effort to understand the personal, educational, and political nature of the Olympic ideal. Next we examine the historical and contemporary reality of the modern Games from the perspective of athletes, spectators, and society at large. Based on these accounts, we critically evaluate the Games' success and failure with respect to their ideals. Finally, we develop constructive solutions to the problems we identify, suggesting practical ways to revise the Olympic ideals and/or improve Olympic reality.

***ANTHRO 1091 Introductory Topics In Anthropology: 3 semester hours***

This course features special and current topics at the introductory level in the areas of social, cultural and physical anthropology and archaeology. The course examines the basic concepts and provides an understanding of the development of new trends and areas of study in the field of Anthropology. Topics will focus on the comparative study of non-Western cultures such as ecological practices in tribal societies; religious practices in prehistoric cultures; the roles of women across cultures; etc. Topics may vary and the course may be repeated provided topic is different. This course satisfies the Cultural Diversity requirement.

***ANTHRO 1095 Brief Overview Of The Four Fields Of Anthropology: 1 semester hour***

Through the use of videos, readings, and the online course management system, this course provides a brief overview of the four traditional fields of anthropology: biological, archaeological, cultural, and linguistic anthropology. This course is designed for video instruction and offers minimal direct interaction with the instructor.

***ANTHRO 1163 Disagreement, Difference, Diversity: 6 semester hours***

Same as PHIL 1163. This interdisciplinary course will combine material from philosophy, anthropology, and sociology to examine the ways we encounter and accommodate disagreement in our daily lives. The unifying thread is our ability to deal with various sorts of opposition: differences of opinion, differences in practice, and differences in how we construct and address both biological and cultural variation. The course will combine units on informal logic and applied ethics from philosophy together with units on the social construction of difference and the understanding of human diversity from anthropology and sociology.

***ANTHRO 1710 Native American Literature: 3 semester hours***

The course surveys the literature of American Indians from its oral tradition of myth, legend, song, and oratory through its modern forms. The course satisfies the ethnic literature requirement for Missouri State Certification in Secondary Education and the College of Arts and Sciences Cultural Diversity requirement.

***ANTHRO 2035 Ancient Greek Civilization And Culture: 3 semester hours***

A survey of the history, language, literature, art, science, and philosophy of the ancient Greeks from prehistory to the Roman conquest. It covers the glamorous Minoan-Mycenaean civilization, the rise of classical Greek civilization and the golden age, the history of the city states such as Athens and Sparta, and the Hellenistic period under Alexander the Great and his descendants. Examines the nature of the ancient Greek language, surveys literary classics such as the Iliad and the Odyssey, and describes the archaeology of Greek myths based on the ongoing UM-St. Louis archaeological project in Greece. Discusses the rise of humanism, the ancient Olympic Games, and the legacy of ancient Greece in Western civilization.

***ANTHRO 2100 Languages and World View: 3 semester hours***

Same as FGN LANG 2100 and SOC 2200 Prerequisites: Completion of two semesters of one foreign language at the college level. This course investigates the extent to which peoples' linguistic and cultural background informs their understanding of the world. Experts on a variety of major Western and non-Western languages will introduce students to differences in ideas about time, space, human relationships, and other issues based on language. The course will also analyze common cultural misunderstandings among native speakers of English and speakers of other languages.

**ANTHRO 2105 Human Variation: 3 semester hours**

This course will look at the variation that exists within our own species, both between and within populations. It will investigate the evolutionary and genetic basis of human variation, as well as its diversity, adaptive significance, and distribution. Topics covered will include: body shape and physiology, blood groups, susceptibility to disease, and skin color. It will survey historical attempts to classify humans into different "races"; assess definitions of race as a solely cultural construct; and critique attempts to link race, intelligence and performance.

**ANTHRO 2109 Archaeological Field School: 3-6 semester hours**

Prerequisites: Consent of instructor. Introduction to field methods in archaeology and to the techniques of recording, storing, analyzing, and reporting archaeological findings. Experience is gained through participation in a field research project including excavation and survey projects. Emphasis is placed upon research design and implementation and upon the use of archaeological data in describing and explaining human behavior.

**ANTHRO 2111 Cultures Of East Asia: 3 semester hours**

An ethnographic and historical survey of the various people of East Asia including Japan, China, North and South Korea, Hong Kong and Macau. Includes an examination of the varying cultural and social developments within and through the historical, geographical, and cultural environments. This course satisfies the Cultural Diversity requirement.

**ANTHRO 2114 Cultures Of The Near And Middle East: 3 semester hours**

A study of the cultural diversity and unity of the peoples of the Near and Middle East. Emphasis on historical and ethnological relationships, social and political structure, religious beliefs and contemporary problems. This course satisfies the non-Euro-American requirement.

**ANTHRO 2117 Greek History And Culture: 3 semester hours**

Same as HIST 2117. Greek civilization has had a deep impact on contemporary society in art; social; political; and economic organization; philosophy; law; medicine; and science. This course covers major aspects of Greek history and culture from antiquity to the present. It considers the major political and military events of Greek history, as well as important aspects of Greek culture, including sports and the history of the Olympic Games, literature, philosophy, and mythology.

**ANTHRO 2118 Modern Greek History and Culture: 3 semester hours**

Same as HIST 2118. A history of Modern Greece, from the fall of Constantinople (1453) to the present, with an emphasis on social, cultural, and political developments. The course will provide a chronological framework of events and it will utilize art, literature, and folklore, along with traditional historical sources, to gain a better understanding of the richness of modern Greek history and culture.

**ANTHRO 2120 Native Peoples Of North America: 3 semester hours**

A survey of Native Peoples of North America including the prehistory, ethnographic and linguistic groupings, social organization, and cultural systems of these cultures.

**ANTHRO 2121 Native American Spirituality: 3 semester hours**

This class will look at the important role of spirituality in American Indian ways of life. This course covers indigenous peoples of the United States and Canada, from prehistoric times to the present. It will look at traditional worldviews and their preservation in contemporary times, including the use of symbols to define tribal identities; religious rituals and practices; and the relationship between humans, animals, and nature. Satisfies Cultural Diversity requirement.

**ANTHRO 2123 Cultures Of Oceania: 3 semester hours**

An introduction to the original cultures and peoples of the South and Western Pacific: New Guinea, Australia, New Zealand, Samoa, Hawaii, Easter Island, etc. Focus is on art, religion, language, relationships to the environment, economics, politics social groupings, and how these intertwine to form distinctly adaptive cultures in one of the least understood regions of the world. This course satisfies the Cultural Diversity requirement.

**ANTHRO 2124 Cultures Of Africa: 3 semester hours**

A basic ethnographic survey of African cultures, with attention to social groupings, tribalism, religion, language social change, and the ecological relationship between humans and nature. This course satisfies the Cultural Diversity requirement.

**ANTHRO 2126 Archaeology Of Greater St Louis: 3 semester hours**

Discussion of Ice Age hunters and gatherers, moundbuilders, fur traders, farmers and industrial workers from the history of the Greater St. Louis Community. The physical testimony to their lives remains buried beneath city streets and buildings. Archeology is our link to this cultural legacy. Through use of archeological data and historical sources, this class will explore human social and cultural developments in St. Louis.

**ANTHRO 2131 Archaeology Of Missouri: 3 semester hours**

An introduction to the prehistoric American Indian cultures of Missouri and adjacent areas from 20,000 years ago to the coming of the Europeans. Examines the development of prehistoric cultures in Missouri from small bands of hunters and gatherers to moundbuilding, agricultural societies and discusses the decline of indigenous cultures as they came into contact with European civilization. Satisfies the Cultural Diversity requirement.

**ANTHRO 2132 Archaeology Of North America: 3 semester hours**

Examines the archaeological record of human developments throughout prehistoric North America. Topics of discussion include the origins of human culture in America, the processes of prehistoric cultural development in the different regions of the continent, and archaeological approaches to explaining the behavior of North America's prehistoric inhabitants. Satisfies the Cultural Diversity requirement.

**ANTHRO 2134 Archaeology Of The Inca, Aztec, And Maya: 3 semester hours**

Provides an overview of human social and cultural developments in Mesoamerica and Andean South America from the first settlements over 20,000 years ago to the Spanish conquest. Focuses on events leading to and including the establishment of Classic Mayan and Aztec societies, and discusses changes that led to what was perhaps the largest nation on earth for its time, the Inca. Satisfies the Cultural Diversity requirement.

**ANTHRO 2191 Special Topics In Non-Western Culture: 3 semester hours**

This course focuses on a specific non-western culture, or geographically related groups of cultures. Ethnographic and/or archaeological cultures are chosen and their ecological economic, social, religious, cosmological, political, ethnic, linguistic and other cultural domains are examined. Students are exposed to basic concepts and knowledge for understanding diverse cultures in their historical and/or contemporary contexts of development and relationship. Topics will vary. Satisfies Cultural Diversity Requirement.

**ANTHRO 2192 Anthropological Perspectives on Western Culture: 3 semester hours**

This course focuses on a specific Western culture or geographically-related group of cultures utilizing ethnographic and/or archaeological sources. Ecological, economic, social, political, ethnic, religious, linguistic and cultural domains will be examined. Students are exposed to basic anthropological concepts for understanding diverse cultures in their historical and/or contemporary contexts. Topics will vary.

**ANTHRO 3202 History and Theory of Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1005, ANTHRO 1006, ANTHRO 1011, or ANTHRO 1019. An overview of the history and theory of anthropology from the Victorian era to today with an emphasis on putting theory into practice. The purpose of the course is to help students understand where anthropology has come from and where it may be going, and to teach students how to apply theory to specific questions and problems.

**ANTHRO 3209 Forensic Anthropology: 4 semester hours**

Same as CRIMIN 3209. Prerequisites: ANTHRO 1005, or BIOL 1102, or junior standing, or consent of instructor. Students learn basic dental and skeletal anatomy and the methods used by biological anthropologists and archaeologists to collect and analyze human skeletal remains, including how to determine age and sex of skeletal remains, identify ethnic markers, determine stature and handedness, and identify the presence of trauma and/or pathology. Also covers the role of the forensic anthropologist in crime scene investigations and human rights issues. In the weekly lab section students will have an opportunity for hands-on application of techniques to analyze skeletal remains.

**ANTHRO 3210 Applied Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. A description and analysis of the methods, principles and use of anthropology in solution of practical problems associated with the changing conditions of our times. The course will examine a wide variety of cross-cultural case studies.

**ANTHRO 3211 Language and Society: 3 semester hours**

Same as SOC 3211. Prerequisites: ANTHRO 1011, or SOC 1010 or consent of the instructor. Variable topics in the subfield of linguistic anthropology will be explored. The focus of the course may include study of communication as part of our evolutionary heritage, the use of language as an index of social and cultural change, language and gender, or other topics.

**ANTHRO 3212 Medical Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science or consent of instructor. An examination of the growing interaction between anthropology and medicine, and the increasing use of anthropologists in medical and health-care settings. In addition to teaching current theory in medical anthropology, the course focuses on anthropologically-based skills essential to those working in health-related fields.

**ANTHRO 3214 Writing Systems of the World: 3 semester hours**

ANTHRO 1011 or consent of instructor. This course is an introduction to the comparative study of writing systems from around the world. It explores the origin and development of Sumerian cuneiform, Mayan glyphs, Egyptian hieroglyphs, Chinese characters, alphabets and syllabaries. It encompasses time periods from the decipherment of ancient languages to the intersections of writing and culture found in the contemporary world.

**ANTHRO 3215 Aging Across Cultures: 3 semester hours**

Same as GERON 3215. Prerequisites: ANTHRO 1011 or PSYCH 1003 or SOC 1010, or consent of instructor. This course examines the wide ranging variability in the roles of older people across different cultures and the effects these have on older people, their families, and their societies.

**ANTHRO 3216 Cognition Across Cultures: 3 semester hours**

Prerequisites: ANTHRO 1011 or introductory course in another social science, or consent of instructor. This course explores cognition - perception, knowledge and thought - as a set of social and cultural processes. An introduction to methods for understanding the human mind in context. It will cover key debates, including: cross-cultural variation in thought processes (cognitive relativity vs. psychic unity), the relation between physiology and consciousness, ethnoscience, the social and cultural construction of reality, the different ways that social contexts affect the way people think, the implications of the way knowledge is distributed across society, the social and cultural basis of logic.

**ANTHRO 3220 Social Statistics: 3 semester hours**

Same as SOC 3220. Prerequisites: SOC 1010 or ANTHRO 1011 and MATH 1020 or MATH 1030. Issues and techniques of statistical analyses relevant to quantitative social science research, e.g. elementary probability, measures of central tendency and dispersion, measures of relationships including linear regression and correlation, inferential and nonparametric statistics. The course includes an introduction to computer-based statistical analysis.

**ANTHRO 3225 Ritual, Death And Sports: Archaeology Of Greek Mythology: 3 semester hours**

Prerequisites: ANTHRO 1019 or ANTHRO 1011 or consent of instructor. Since the beginning of our existence, humans have pondered the mysteries of life and death and have strived to find meaning in a constantly changing world. In Western civilization, Greek mythology and religion represent humanity's earliest attempts to deal with the greater forces that affect our lives, which found expression in the great religious and athletic festivals, such as the Olympic Games. We will study the myths, rituals, religious beliefs of the ancient Greeks and how these were expressed in sports and art, in order to get a glimpse of the supernatural. The sources of our exploration are two: the fascinating archaeological discoveries of ancient Greek sites and relevant readings from the ancient Greek literature.

**ANTHRO 3227 Monsters & Victims: Women Dramatis Personae in Greek Tragedy & Contemporary Drama: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. This course explores female dramatic figures in ancient Greek tragedies that represent women either as victims and/or monsters. From Iphigenia, Alcestis, and Hecuba to Clytemnestra, Phaedra and Medea, it analyzes issues such as the role of sex, gender, female sexuality, ritual and domestic violence in the image-making of women as either scapegoats or monsters by the major Greek tragedians, particularly Euripides. It explores contemporary adaptations by several women playwrights in light of theoretical readings by feminist critics.

**ANTHRO 3228 People and Plants: 3 semester hours**

Prerequisites: ANTHRO 1011 or ANTHRO 1019 or consent of instructor. This course is designed to introduce students to complex relationships between people and plants. We will focus on how plants are perceived, managed, and used across human societies. Topics span the ages and include collection of wild plants and "Stone Age" diets; the origins of agriculture in Ancient Egypt, Mesopotamia, China, and the Americas; the development of crops and GMOs; industrial agriculture; organic gardening; and the wilderness-to-table movement. While emphasis will be on food plants, we will also discuss the use of plants as medicines, cosmetics, dyes, and construction materials.



**ANTHRO 3229 Economic Archaeology And Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011 or ANTHRO 1019 or consent of instructor. Course examines economic organization and behavior in a crosscultural context. It looks at the various ways anthropologists have approached the study of economy, and explores how cultural factors such as relations of power, gender, kinship, and ideology affect economic organization in ancient and modern societies. Most of the course will focus on pre-industrial societies (including hunter-gather, tribal, and complex societies), and will address issues of subsistence strategies, craft production and specialization, trade and exchange, money, and markets. It will also briefly explore how modern communities around the globe are responding to contemporary processes like capitalism and globalization.

**ANTHRO 3235 Women In Sub-Saharan Africa: A Contemporary Perspective: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. Examines important traditional concerns of anthropologists such as the nature of kinship obligation and privilege; gender as a basis for the division of labor; social organization for formal and informal networks; and ritual and ceremony. In addition we look closely at the changing role of African women, as related by African women testing the very limits of what is "socially and culturally acceptable." The roles women continue to play in politics, comprehensive development (i.e. cultural and economic), and evolving social structures are reviewed to gain an understanding of the historical and contemporary mandates for their social action. This course fulfills the Cultural Diversity requirement.

**ANTHRO 3236 Sex Trafficking in Cross-Cultural Perspective: 3 semester hours**

Prerequisites: ANTHRO 1041, GS 2150 or GS 2102 or consent of instructor. This course introduces the history of and current issues in the international sex industry, including human trafficking, slavery, and prostitution in Europe, Asia, Africa, South America, and North America. It will evaluate the power structures (political, economic, and military institutions) and the process, organization and structure of the industry within the context of nationality, ethnicity, and class, with particular emphasis on voluntary (immigration) and forced (displacement) population migration. Finally, it will look at current legislation and methods to control this growing problem, especially in the United States.

**ANTHRO 3237 Japanese Popular Culture: 3 semester hours**

Same as SOC 3237. Prerequisites: ANTHRO 1011. Through biographies, fiction, films, anime, manga, television, music, magazines, and other media, the course investigates a range of topics related to Japanese history, social diversity, subcultural identity, gender, demographic change, and media. The study of Japanese popular culture is ideal for understanding theoretical issues such as the construction of gender and sexuality, identity formation, nationalism, emerging youth cultures, and the processes of globalization and localization. Satisfies University cultural diversity requirements.

**ANTHRO 3270 Human Ecology, Cultural Collapse, and Sustainable Developments: 3 semester hours**

Prerequisites: ANTHRO 1019 or consent of the instructor. Human interactions with the natural environment will be explored by reviewing approaches, concepts, and tools from ecological anthropology and archaeology. Case studies based on archaeological, ethnographic, and ethnological data will be analyzed and discussions expanded to include information about past and present, sustainable human-environmental interactions, policies, and contributing institutions.

**ANTHRO 3290 Advanced Topics In Archaeology: 3 semester hours**

Prerequisites: ANTHRO 1019, or consent of instructor. Selected topics in archeology with a strong theoretical and methodological approach. Requires substantial reading and writing. May be repeated with consent of department.

**ANTHRO 3291 Current Issues In Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1011, or introductory course in another social science, or consent of instructor. Selected topics in social, cultural and physical anthropology, with emphasis on current issues and trends in the field of anthropology. May be repeated provided topic is different.

**ANTHRO 4000 Ethnographic Field Research Methods: 3 semester hours**

Prerequisites: ANTHRO 1011, SOC 1010, or consent of Instructor. Ethnographic field research is the basis of cultural anthropological inquiry. This course emphasizes hands-on training in the collection and analysis of ethnographic data, including participant observation, taking and managing field notes, key informant interviewing, content analysis and the preparation of ethnographic field reports.

**ANTHRO 4005 Special Research Methods in Cultural Anthropology: 1-3 semester hours**

Prerequisites: ANTHRO 1011 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in cultural anthropology and/or linguistic anthropology. May be repeated provided the topic is different.

**ANTHRO 4100 Field Methods in Archaeology: 3 semester hours**

Prerequisites: ANTHRO 1019 or consent of instructor. Advanced instruction in archaeological field methods including techniques of recording, storing, analyzing, and reporting archaeological findings. Experience is gained through participation in excavations and/or surveys. Emphasis is placed upon research design and implementation and the use of archaeological data in describing and explaining human behavior.

**ANTHRO 4105 Special Research Methods in Archaeology: 1-3 semester hours**

Prerequisites: ANTHRO 1019 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in archaeology. May be repeated provided the topic is different.

**ANTHRO 4160 Geographical Information Systems in Anthropology and Sociology: 4 semester hours**

Same as SOC 4160. Prerequisites: ANTHRO 1005, or ANTHRO 1011, or ANTHRO 1019, or SOC 1010, or consent of instructor. Instruction in use of GIS software to record and analyze findings in archaeology, biological anthropology, cultural anthropology, and sociology. Emphasis is placed upon research design, development of data collection methodologies, and the use of GIS in describing and explaining human behavior and its relationship to the physical environment.

**ANTHRO 4200 Field Methods in Biological Anthropology: 3 semester hours**

Prerequisites: ANTHRO 1006, SOC 3220 or equivalent, or consent of instructor. Course material based on primate behavior, demographics, and morphology. Research techniques for ethological and primatological studies, including the design of research protocols, development of data collection methodologies, analysis of morphological and behavioral data, and the scientific description of findings. Students are required to conduct observations of primates at the St. Louis Zoo and participate in the Undergraduate Research Symposium.



**ANTHRO 4205 Special Research Methods in Biological Anthropology: 1-3 semester hours**

Prerequisites: ANTHRO 1005 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in biological anthropology. May be repeated provided the topic is different.

**ANTHRO 4305 Special Research Methods in Anthropology: 1-3 semester hours**

Prerequisites: ANTHRO 1005 or ANTHRO 1011 or ANTHRO 1019 or consent of instructor. Advanced instruction in specialized technical and analytical skills and methods used to conduct research in anthropology and may combine skills from cultural anthropology, linguistic anthropology, archaeology, and/or biological anthropology. May be repeated provided the topic is different.

**ANTHRO 4307 Community Based Research in Anthropology: 3 semester hours**

Prerequisites: Junior standing, ANTHRO 1011, ANTHRO 3202, and completion of junior-level writing requirement. An advanced course in qualitative/ethnographic modes of inquiry, building on research and analytical skills learned in previous courses. Some quantitative methods may supplement the research when appropriate. Students experience the process of discovery, representation, presentation, and justification based on fieldwork and/or archival research. The focus is on applying anthropological knowledge to practical issues faced by communities and institutions in the St. Louis area. May be repeated provided the topic is repeated.

**ANTHRO 4309 Archaeological Field School: 3-6 semester hours**

Prerequisites: Consent of instructor. Advanced methods in field archaeology and laboratory analysis. Emphasis is placed on sampling, the use of theory in guiding field and laboratory work, advanced field techniques, and speciality analysis. Opportunities are provided for the development of field and laboratory leadership skills. Independent research is encouraged.

**ANTHRO 4310 Laboratory Methods In Archaeology: 3 semester hours**

Prerequisites: ANTHRO 1019, SOC 3220 or equivalent, or consent of instructor. An advanced laboratory analysis and curation methods class. The emphases are 1) mastery of general lab methods and procedures, and 2) development of independent analysis skills in one or more specialty areas such as lithics, ceramics, computer graphics, statistical methods, paleoethnobotany, experimental analysis, and soils.

**ANTHRO 4312 Cultural Resource Management And Historic Preservation: 3 semester hours**

Prerequisites: ANTHRO 1019 or Consent of Instructor. This course will introduce proper practices of cultural resource management and historic preservation. It provides a technical and theoretical bridge between anthropological archaeology and its application to the management of resources. Among the issues covered will be relevant legislation, the phased approach to archaeological and historical research, state and federal review procedures, proposal writing, interacting with clients, consulting with native peoples, and public and professional ethics and standards. This course will provide hands-on experience. Because one of the skills most sought by project managers and employers is writing competence, it will be writing intensive.

**ANTHRO 4315 Professionalism and Practice In Anthropology: 3 semester hours**

Prerequisites: Senior standing and consent of Instructor. The capstone course for anthropology majors, ideally taken in the final semester of the senior year. Students will learn to apply the anthropological knowledge and ethics gained in previous courses within professional settings. Skills include developing a CV; applying to graduate schools and jobs; making oral presentations; and writing grant proposals, public policy recommendations, consulting reports, and diplomatic communications. Final senior exit project will be reviewed by Anthropology faculty members.

**ANTHRO 4316 Senior Research Project: 3 semester hours**

Prerequisites: Senior standing and consent of the instructor. For undergraduates who have excelled in their coursework and wish to conduct original research. Students will work with a faculty member with expertise relevant to the research topic. This course offers students the opportunity to build upon strong research, analytic and writing skills. Completion of this course will result in the writing of a thesis, publication of an article, presentation at a professional meeting, or other work that exemplifies high achievement.

**ANTHRO 4325 Internship In Cultural Anthropology: 1-3 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate public or private institution, business, or government office. Cultural Anthropology internships are aimed at providing students with opportunities to learn to apply their knowledge of social and cultural process and diversity to practical situations in the market place of ideas, goods, and services. Specific placements will be selected to match student's interests and career goals.

**ANTHRO 4326 Internship In Archaeology: 1-6 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate public or private institution, business, or government office. Archaeology internships are aimed at providing students with opportunities to work with professional archaeologists in public and private research environments including laboratories and curation centers. Specific placements will be selected to match student's interests and career goals.

**ANTHRO 4328 Internship In Museum Studies: 1-3 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate museum or other exhibition oriented institution. Museum internships are aimed at providing students with opportunities to work with professional museologists to learn skills relating to areas such as exhibition, curation, public programming, research, and publication. Specific placements will be selected to match student's interests and career goals.

**ANTHRO 4329 Internship In Physical Anthropology: 1-3 semester hours**

Prerequisite: Recommendation of major advisor. Students will be assigned an internship on recommendation of their advisor. Internships will consist of a period of study, observation, and training in an appropriate institution, lab, or research setting related to forensics, primate behavior and biology, human genetics, population, environmental policy, and other domains related to physical anthropology.

**ANTHRO 4350 Special Study: 1-3 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports, or field research. No student may take more than a cumulative total of 6 hours of Special Study.

**ANTHRO 4391 Current Issues In Anthropology: 1-4 semester hours**

Prerequisite: ANTHRO 1011 or consent of instructor. Selected topics in social, cultural, and physical anthropology, with emphasis on current issues and trends in the field of anthropology. May be repeated. Non-majors may register for ANTHRO 2191.

**ANTHRO 5440 Cultural Aspects Of Aging: 3 semester hours**

Same as GERON 5440. Prerequisites: Graduate status or consent of the instructor. Focuses on the variety of solutions encountered in different sociocultural contexts for dealing with the problems, challenges and opportunities of growing old. It is organized around topics that are of concern to both anthropology and social gerontology: the status of the aged, intergenerational relations, aging in modernizing societies, ethnic dimensions of aging in complex societies, health in later life, death and dying. Both in-depth case studies and cross-cultural comparisons are examined in an effort to arrive at a culturally informed assessment of factors affecting aging and the aged in the United States.

**ANTHRO 5592 The History of the Visual Arts in American Museums: 3 semester hours**

Same as HIST 5592 and ART HS 5592. Prerequisites: Graduate standing and consent of instructor. This course is an introduction to selected topics in the history of museology, focusing on art and anthropology museums as sites for the interpretations of art and culture, and as contested meeting grounds for various views of history and culture.

**ANTHRO 6135 Foundations Of Museology I: 3 semester hours**

Same as ART HS 6035 and HIST 6135. Prerequisites: Consent of Director of Museum Studies Program. Concepts for understanding museums in their social and cultural context; history of museums; museology and general social theory; information transfer vs. meaning-making models; museums and communities; the changing role of museums; museums as complex organizations; process models of museology.

**ANTHRO 6136 Foundations Of Museology II: 3 semester hours**

Same as ART HS 6036 and HIST 6136. Prerequisites: Consent of Director of Museum Studies Program. Audience-centered approaches to museology; visitor research and learning theory; philosophical and practical considerations in museum planning; the physical design of museums; creativity; exhibit and program development; collections and curation; the challenge of diversity; the future of museums.

**ANTHRO 6137 Museum Organization and Operations: 3 semester hours**

Same as: ART HS 6037 and HIST 6137. Prerequisites: Consent of Director of Museum Studies Program. This course looks at museum organization and operations in the 21st century. As museums become more focused on visitors, communities, and private donors, their structures, staffing, and practices have changed. This course introduces students to the wide range of museum professions, the evolving function of museums, the effects of new technologies, and the challenges of administration and funding in constrained economic circumstances. The course includes scrutiny of ethical issues such as disputed collections, intellectual property rights, organizational conflicts, and community collaboration and planning.

**ANTHRO 6138 Museum Studies Master's Project: 4 semester hours**

Same as ART HS 6038 and HIST 6138. Prerequisites: Consent of Director of Museum Studies program. Research and writing/exhibit development on a selected topic.

**ANTHRO 6139 Practicum In Exhibit & Program Development: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. Development of exhibits and related education programs. Students work as teams with museum professionals to develop and implement an exhibit concept that integrates design, education, and marketing from the onset. Methods in planning, flow charting, budgeting, team dynamics and related skills.

## Applied Music

### Courses

**AP MUS 1410 Secondary Applied Music: Bassoon: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1411 Secondary Applied Music: Clarinet: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1412 Secondary Applied Music: Classical Guitar: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1413 Secondary Applied Music: Euphonium: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1414 Secondary Applied Music: Flute: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1415 Secondary Applied Music: French Horn: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1417 Secondary Applied Music: Oboe: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1418 Secondary Applied Music: Organ: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1419 Secondary Applied Music: Percussion: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1420 Secondary Applied Music: Piano: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1421 Secondary Applied Music: Saxophone: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1422 Secondary Applied Music: Trombone: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1423 Secondary Applied Music: Trumpet: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1424 Secondary Applied Music: Tuba: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1425 Secondary Applied Music: Violin: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1426 Secondary Applied Music: Viola: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1427 Secondary Applied Music: Violoncello: 1 semester hour**

Prerequisites: By Audition And Consent Of Department. Individual Instruction In Performance And Literature Of The Designated Instrument. May Be Repeated For Credit. Not Applicable To The Applied Music Requirement For Music Major Or Music Minor Degrees.

**AP MUS 1428 Secondary Applied Music: String Bass: 1 semester hour**

Prerequisites: By Audition And Consent Of Department. Individual Instruction In Performance And Literature Of The Designated Instrument. May Be Repeated For Credit. Not Applicable To The Applied Music Requirement For Music Major Or Music Minor Degrees.

**AP MUS 1429 Secondary Applied Music: Voice: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1430 Secondary Applied Music: Jazz Studies: 1 semester hour**

Prerequisite: by audition and consent of department. Individual instruction in jazz performance and literature on the designated instrument. Not applicable to the applied music requirement for music major or music minor degrees. May be repeated for credit.

**AP MUS 1440 Bassoon: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1441 Clarinet: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1442 Classical Guitar: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1443 Euphonium: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1444 Flute: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1445 French Horn: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1446 Harp: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1447 Oboe: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1448 Organ: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1449 Percussion: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1450 Piano: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.



**AP MUS 1451 Saxophone: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1452 Trombone: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1453 Trumpet: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1454 Tuba: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1455 Violin: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1456 Viola: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1457 Violoncello: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1458 String Bass: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1459 Voice: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1460 Seminar In Pedagogy And Literature: 0 semester hours**

Prerequisites: Concurrent registration with parallel Applied Music course is required. Seminars in pedagogy and literature are offered for all areas of Applied Music. May be taken on a satisfactory/unsatisfactory grading basis.

**AP MUS 3440 Bassoon: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3441 Clarinet: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3442 Classical Guitar: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3443 Euphonium: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3444 Flute: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3445 French Horn: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3446 Harp: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3447 Oboe: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3448 Organ: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3449 Percussion: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3450 Piano: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3451 Saxophone: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3452 Trombone: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3453 Trumpet: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.



**AP MUS 3454 Tuba: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3455 Violin: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3456 Viola: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3457 Violoncello: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3458 String Bass: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3459 Voice: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3460 Seminar In Pedagogy And Literature: 0 semester hours**

Prerequisites: Concurrent registration with a parallel Applied Music course is required. Seminars in pedagogy and literature are offered for all areas of Applied Music. May be taken on a satisfactory/unsatisfactory basis.

**AP MUS 4440 Bassoon: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4441 Clarinet: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4442 Classical Guitar: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4443 Euphonium: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4444 Flute: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4445 French Horn: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4446 Harp: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4447 Oboe: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4448 Organ: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4449 Percussion: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4450 Piano: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4451 Saxophone: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4452 Trombone: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4453 Trumpet: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4454 Tuba: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4455 Violin: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar Music 4460.

**AP MUS 4456 Viola: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4457 Violoncello: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4458 String Bass: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4459 Voice: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4460 Seminar In Pedagogy And Literature: 0 semester hours**

Prerequisite: Concurrent registration with parallel Applied Music course is required. Seminars in pedagogy and literature are offered for all areas of Applied Music. May be taken on a satisfactory/unsatisfactory grading basis.

**AP MUS 4500 Honors Recital: 2-4 semester hours**

Prerequisites: Minimum of three semesters of applied music at the upper division level; completion of the required junior and/or senior degree recitals; permission of the applied music faculty. Preparation and public performance beyond the required degree recital(s) for undergraduate music programs. By approval of the applied music instructor, the Honors Recital may be a lecture-recital focusing on both the performance and the historical, analytical, and/or pedagogical aspects of selected literature, a public performance of a complete concerto or major solo work with orchestra or symphonic band, a major music theatre or opera role in a full production, a full chamber music recital, or other similar major performances.

**AP MUS 5430 Special Applied Studies: 1 semester hour**

Prerequisites: Graduate standing in music and consent of department. Individual instruction in the performance and literature of an applied area other than the student's primary performance study. No jury examination is required. May be repeated for credit.

**AP MUS 5440 Graduate Applied Music: 1 semester hour**

Prerequisites: Graduate standing in music and consent of department. Instruction is offered in the following areas: bassoon, clarinet, classical guitar, euphonium, flute, French horn, harp oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, violin, viola, violoncello, string bass and voice. May be repeated for credit.

## Courses

**AP MUS 1410 Secondary Applied Music: Bassoon: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1411 Secondary Applied Music: Clarinet: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1412 Secondary Applied Music: Classical Guitar: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1413 Secondary Applied Music: Euphonium: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1414 Secondary Applied Music: Flute: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1415 Secondary Applied Music: French Horn: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1417 Secondary Applied Music: Oboe: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1418 Secondary Applied Music: Organ: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1419 Secondary Applied Music: Percussion: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1420 Secondary Applied Music: Piano: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1421 Secondary Applied Music: Saxophone: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1422 Secondary Applied Music: Trombone: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1423 Secondary Applied Music: Trumpet: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1424 Secondary Applied Music: Tuba: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1425 Secondary Applied Music: Violin: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1426 Secondary Applied Music: Viola: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1427 Secondary Applied Music: Violoncello: 1 semester hour**

Prerequisites: By Audition And Consent Of Department. Individual Instruction In Performance And Literature Of The Designated Instrument. May Be Repeated For Credit. Not Applicable To The Applied Music Requirement For Music Major Or Music Minor Degrees.

**AP MUS 1428 Secondary Applied Music: String Bass: 1 semester hour**

Prerequisites: By Audition And Consent Of Department. Individual Instruction In Performance And Literature Of The Designated Instrument. May Be Repeated For Credit. Not Applicable To The Applied Music Requirement For Music Major Or Music Minor Degrees.

**AP MUS 1429 Secondary Applied Music: Voice: 1 semester hour**

Prerequisites: By audition and consent of department. Individual instruction in performance and literature of the designated instrument. May be repeated for credit. Not applicable to the applied music requirement for music major or music minor degrees.

**AP MUS 1430 Secondary Applied Music: Jazz Studies: 1 semester hour**

Prerequisite: by audition and consent of department. Individual instruction in jazz performance and literature on the designated instrument. Not applicable to the applied music requirement for music major or music minor degrees. May be repeated for credit.

**AP MUS 1440 Bassoon: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1441 Clarinet: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1442 Classical Guitar: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1443 Euphonium: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1444 Flute: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1445 French Horn: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1446 Harp: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1447 Oboe: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1448 Organ: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1449 Percussion: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1450 Piano: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1451 Saxophone: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1452 Trombone: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1453 Trumpet: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1454 Tuba: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.



**AP MUS 1455 Violin: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1456 Viola: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1457 Violoncello: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1458 String Bass: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1459 Voice: 1 semester hour**

Prerequisite: By audition and consent of department. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 1460.

**AP MUS 1460 Seminar In Pedagogy And Literature: 0 semester hours**

Prerequisites: Concurrent registration with parallel Applied Music course is required. Seminars in pedagogy and literature are offered for all areas of Applied Music. May be taken on a satisfactory/unsatisfactory grading basis.

**AP MUS 3440 Bassoon: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3441 Clarinet: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3442 Classical Guitar: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3443 Euphonium: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3444 Flute: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3445 French Horn: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3446 Harp: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3447 Oboe: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3448 Organ: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3449 Percussion: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3450 Piano: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3451 Saxophone: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3452 Trombone: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3453 Trumpet: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3454 Tuba: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3455 Violin: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3456 Viola: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.



**AP MUS 3457 Violoncello: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3458 String Bass: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3459 Voice: 1 semester hour**

Prerequisites: Completion of the Junior Standing Exam in major applied area. May be repeated, up to 6 credit hours Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 3460.

**AP MUS 3460 Seminar In Pedagogy And Literature: 0 semester hours**

Prerequisites: Concurrent registration with a parallel Applied Music course is required. Seminars in pedagogy and literature are offered for all areas of Applied Music. May be taken on a satisfactory/unsatisfactory basis.

**AP MUS 4440 Bassoon: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4441 Clarinet: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4442 Classical Guitar: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4443 Euphonium: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4444 Flute: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4445 French Horn: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4446 Harp: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4447 Oboe: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4448 Organ: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4449 Percussion: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4450 Piano: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4451 Saxophone: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4452 Trombone: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4453 Trumpet: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4454 Tuba: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4455 Violin: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar Music 4460.

**AP MUS 4456 Viola: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4457 Violoncello: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4458 String Bass: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4459 Voice: 2 semester hours**

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar AP MUS 4460.

**AP MUS 4460 Seminar In Pedagogy And Literature: 0 semester hours**

Prerequisite: Concurrent registration with parallel Applied Music course is required. Seminars in pedagogy and literature are offered for all areas of Applied Music. May be taken on a satisfactory/unsatisfactory grading basis.

**AP MUS 4500 Honors Recital: 2-4 semester hours**

Prerequisites: Minimum of three semesters of applied music at the upper division level; completion of the required junior and/or senior degree recitals; permission of the applied music faculty. Preparation and public performance beyond the required degree recital(s) for undergraduate music programs. By approval of the applied music instructor, the Honors Recital may be a lecture-recital focusing on both the performance and the historical, analytical, and/or pedagogical aspects of selected literature, a public performance of a complete concerto or major solo work with orchestra or symphonic band, a major music theatre or opera role in a full production, a full chamber music recital, or other similar major performances.

**AP MUS 5430 Special Applied Studies: 1 semester hour**

Prerequisites: Graduate standing in music and consent of department. Individual instruction in the performance and literature of an applied area other than the student's primary performance study. No jury examination is required. May be repeated for credit.

**AP MUS 5440 Graduate Applied Music: 1 semester hour**

Prerequisites: Graduate standing in music and consent of department. Instruction is offered in the following areas: bassoon, clarinet, classical guitar, euphonium, flute, French horn, harp oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, violin, viola, violoncello, string bass and voice. May be repeated for credit.

## Arabic

### Courses

**ARABIC 1001 Arabic I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, reading and writing of Arabic and upon the acquisition of the fundamentals of grammar and syntax.

**ARABIC 1002 Arabic II: 5 semester hours**

Prerequisites: ARABIC 1001 or equivalent. Emphasis is placed upon the understanding, speaking, reading and writing of Arabic. Continuation of acquisition of the fundamentals of grammar and syntax.

**ARABIC 2101 Intermediate Arabic I: 5 semester hours**

Prerequisites: ARABIC 1002 or equivalent. Students will advance their understanding of Arabic culture through discussions, readings and written work. Language skills will be further developed through meaningful communicative interaction.

**ARABIC 2102 Intermediate Arabic II: 5 semester hours**

Prerequisites: ARABIC 2101 or equivalent Continuation of ARABIC 2101.

**ARABIC 2190 Special Readings: 1-3 semester hours**

Prerequisites: ARABIC 2102 or consent of the department. Independent study through readings, reports and conferences.

### Courses

**ARABIC 1001 Arabic I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, reading and writing of Arabic and upon the acquisition of the fundamentals of grammar and syntax.

**ARABIC 1002 Arabic II: 5 semester hours**

Prerequisites: ARABIC 1001 or equivalent. Emphasis is placed upon the understanding, speaking, reading and writing of Arabic. Continuation of acquisition of the fundamentals of grammar and syntax.

**ARABIC 2101 Intermediate Arabic I: 5 semester hours**

Prerequisites: ARABIC 1002 or equivalent. Students will advance their understanding of Arabic culture through discussions, readings and written work. Language skills will be further developed through meaningful communicative interaction.

**ARABIC 2102 Intermediate Arabic II: 5 semester hours**

Prerequisites: ARABIC 2101 or equivalent Continuation of ARABIC 2101.

**ARABIC 2190 Special Readings: 1-3 semester hours**

Prerequisites: ARABIC 2102 or consent of the department. Independent study through readings, reports and conferences.

## Art Education

### Courses

**ART ED 2179 Art Activities for Elementary School: 3 semester hours**

A study of art principles and laboratory experiences with various media and materials. Stresses curriculum planning and development of the elementary school program in art. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ART ED 3328 Art Education: Theory to Practice: 3 semester hours**

Prerequisites: TCH ED 2209, ED PSY 2212 and completion of Foundation Art Program. Development and application of concepts related to comprehensive art education and standards-based curriculum in art education, with an examination of current theories, trends, publications, and on-line resources in the field.

**ART ED 4260 Art Museum as Teaching Resource: 3 semester hours**

Prerequisites: TCH ED 2209, ED PSY 2212, 9 hours of Art History and completion of Foundation Art Program. Should be taken concurrently with ART ED 3328. Students will learn how to strengthen K-12 Art Education by utilizing the collections and resources of the St. Louis Art Museum. A variety of teaching approaches and learning activities for galleries and classrooms will be employed, focusing on art from around the world and throughout history.

**ART ED 4273 Curriculum and Methods of Teaching Art: 3 semester hours**

Prerequisites: ART ED 3328 and completion of, or concurrent enrollment in, TCH ED 3310, ED PSY 3312, SPEC ED 3318, or TCH ED 4391. A study of the scope and sequence of art education in the school curriculum, with emphasis on the preparation, selection, organization and application of materials and methods of instruction and assessment. Attention is also given to learning the research tools of the scholar in the field of art education. Not available for graduate credit.

**ART ED 4290 Special Study in Art Education: 1-6 semester hours**

Prerequisites: Junior, senior, or graduate standing and consent of instructor. Independent study through readings, reports, field research, or special projects. May be repeated for credit, up to a maximum of 6 credit hours.

**ART ED 5334 Topics in Contemporary Art Education: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Intensive study for advanced students and art teachers, emphasizing specialized techniques and innovative concepts. Topics to be announced. May be repeated for credit, up to a maximum of 12 credit hours.(PREVIOUS CATALOG NUMBER WAS STUDIO ART 3334).

**ART ED 5588 Museum Education and Visitor Research: 3 semester hours**

Prerequisites: Consent of director of Museum Studies Program. Development and operation of museum educational programs: learning theory; program design; relationships with exhibit development' programming for children and adults. Visitor research: theoretical foundations; research design; impact on programming and strategic planning.

**ART ED 5590 Special Study in Art Education: 1-6 semester hours**

Prerequisite: Graduate standing and consent of instructor. Independent study through readings, reports, field research, or special projects. May be repeated for credit.

## Courses

**ART ED 2179 Art Activities for Elementary School: 3 semester hours**

A study of art principles and laboratory experiences with various media and materials. Stresses curriculum planning and development of the elementary school program in art. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ART ED 3328 Art Education: Theory to Practice: 3 semester hours**

Prerequisites: TCH ED 2209, ED PSY 2212 and completion of Foundation Art Program. Development and application of concepts related to comprehensive art education and standards-based curriculum in art education, with an examination of current theories, trends, publications, and on-line resources in the field.

**ART ED 4260 Art Museum as Teaching Resource: 3 semester hours**

Prerequisites: TCH ED 2209, ED PSY 2212, 9 hours of Art History and completion of Foundation Art Program. Should be taken concurrently with ART ED 3328. Students will learn how to strengthen K-12 Art Education by utilizing the collections and resources of the St. Louis Art Museum. A variety of teaching approaches and learning activities for galleries and classrooms will be employed, focusing on art from around the world and throughout history.

**ART ED 4273 Curriculum and Methods of Teaching Art: 3 semester hours**

Prerequisites: ART ED 3328 and completion of, or concurrent enrollment in, TCH ED 3310, ED PSY 3312, SPEC ED 3318, or TCH ED 4391. A study of the scope and sequence of art education in the school curriculum, with emphasis on the preparation, selection, organization and application of materials and methods of instruction and assessment. Attention is also given to learning the research tools of the scholar in the field of art education. Not available for graduate credit.

**ART ED 4290 Special Study in Art Education: 1-6 semester hours**

Prerequisites: Junior, senior, or graduate standing and consent of instructor. Independent study through readings, reports, field research, or special projects. May be repeated for credit, up to a maximum of 6 credit hours.

**ART ED 5334 Topics in Contemporary Art Education: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Intensive study for advanced students and art teachers, emphasizing specialized techniques and innovative concepts. Topics to be announced. May be repeated for credit, up to a maximum of 12 credit hours.(PREVIOUS CATALOG NUMBER WAS STUDIO ART 3334).

**ART ED 5588 Museum Education and Visitor Research: 3 semester hours**

Prerequisites: Consent of director of Museum Studies Program. Development and operation of museum educational programs: learning theory; program design; relationships with exhibit development' programming for children and adults. Visitor research: theoretical foundations; research design; impact on programming and strategic planning.

**ART ED 5590 Special Study in Art Education: 1-6 semester hours**

Prerequisite: Graduate standing and consent of instructor. Independent study through readings, reports, field research, or special projects. May be repeated for credit.

## Art History

### Courses

**ART HS 1100 Introduction To Western Art: 3 semester hours**

An introduction to major historical movements in Western art.

**ART HS 1101 Ideas in Art History: 3 semester hours**

Prerequisites: ART HS 1100 or consent of instructor. Studies of selected works of art, with attention to the social and cultural factors surrounding their creation. May not count for a major or minor in art history.

**ART HS 1103 Pre-Columbian Art and Architecture of Meso-and South America: 3 semester hours**

An overview of Pre-Columbian art and architecture that examines the contributions of Olmec, Toltec, Maya, Aztec, Inca, Andean and other Meso-American and South American cultures from prehistoric times until the Spanish intervention in the early 1500s.

**ART HS 1104 Indigenous Arts Of North America: 3 semester hours**

A survey of the indigenous arts of North America from precontact through the present. Cultures to be covered include Iroquois and Ojibway of the Northeast; Navajo and Pueblo of the Southwest; Kwaguith and Gitsxan of the Northwest Coast; and Inuit from the Arctic. The relationship of art to religion, philosophy, politics, and social life will be explored.

**ART HS 1105 Introduction To The Arts Of Africa: 3 semester hours**

A survey of the major art forms of Africa and the African Diaspora. The course addresses traditional media, such as architecture, masquerade, regalia, sculpture, metalwork, ceramics, and textiles, as well as contemporary sculpture, painting, photography, and performance. This course satisfies the cultural diversity requirement.

**ART HS 1108 Introduction To The Arts Of Asia: 3 semester hours**

A survey of the major achievements in architecture, sculpture, and painting of India, China, Japan, and Southeast Asia, with an emphasis on religious, historical, and social context of the arts. This course satisfies the cultural diversity requirement.

**ART HS 2211 Art And Archaeology Of The Ancient World: 3 semester hours**

Prerequisite: ART HS 1100. A survey of art in Egypt, the ancient Near East, Greece, and Rome, beginning in the Neolithic era (8000-4000 BC) and ending with the Barbarian invasions of Italy in the fifth century A.D. The major highlights of architecture and city planning, sculpture, painting, pottery, and the minor arts will be covered.

**ART HS 2212 Greek Art And Archaeology: 3 semester hours**

General survey of material culture in the Aegean basin, beginning with the Bronze Age (Third Millennium B.C.) and terminating in the late Hellenistic period (Second Century B.C.). For the Hellenistic period the course will trace Greek developments and influences outside of the Aegean, for example in Italy and in Egypt.

**ART HS 2225 Medieval Art: 3 semester hours**

A survey of the art and architecture of the Mediterranean World and northern Europe from late antiquity to the late Gothic period (300-1300 A.D.). Focus on new styles and subject matter in painting, sculpture and architecture.

**ART HS 2235 Italian And Northern European Renaissance Art: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. An introduction to selected artworks, artists and patrons in Italy and Northern Europe throughout the fifteenth and sixteenth centuries, beginning with Ghiberti and Van Eyck and ending with Michelangelo and Brughel.

**ART HS 2238 Italian Renaissance Art: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. Study of sculpture, paintings, and architecture in Florence, Rome, and Venice during the fourteenth, fifteenth, & sixteenth centuries as reflections of cultural, religious, philosophical, and political beliefs.

**ART HS 2240 French Art And Architecture 1400-1715: 3 semester hours**

Prerequisite: ART HS 1100. A survey of art and architecture in France from the late medieval period to the late baroque. Topics will include the development of French chateaux and gardens, the rise of the Academy, and the influence of royal patronage on the arts.

**ART HS 2245 Baroque Art And Architecture: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. A survey of the major paintings, statues, buildings, and their artists and patrons in seventeenth-century Italy, France, Flanders, Holland, and Spain. Special attention will be given to the study of the city of Rome.

**ART HS 2248 Eighteenth Century European Art: 3 semester hours**

Prerequisites: ART HS 1100 or permission of the instructor. A survey of European art and architecture from 1700 to 1800, primarily in England, France, and Italy. Topics will include the Rococo and Georgian styles; the Classical and Gothic revivals; the impact of the Enlightenment; the Grand Tour and admiration of antiquity; and decorative arts, including ceramics, interior design, and gardens.

**ART HS 2250 Nineteenth Century European Art: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. A survey of European art from 1780 to 1880, focusing on developments in England, France, Germany, and Scandinavia. Topics to be addressed include Neoclassicism, Romanticism, Realism, and Impressionism.

**ART HS 2255 Modern Art: 3 semester hours**

Prerequisite: ART HS 1100 or consent of the instructor. A survey of art from 1880 to 1960. Topics to be addressed include Post-Impressionism, Cubism, Surrealism, Abstract Expressionism, and non-representational art.

**ART HS 2265 History Of Photography: 3 semester hours**

Prerequisite: ART HS 1100 or consent of instructor. A study of photography: its historical development, an examination of it as an art medium, and its influence on the development of modern art.

**ART HS 2270 American Art To 1876: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. An overview of the major developments in painting, sculpture, and the decorative arts in the United States to 1876.

**ART HS 2272 American Art Since 1876: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. Major developments in American painting, sculpture, and the decorative arts since 1876.

**ART HS 2279 American Architecture: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. An overview of American Architectural practice from 1600 to the present.

**ART HS 2281 Art Since 1960: 3 semester hours**

Prerequisite: ART HS 1100 or consent of the instructor. A survey of art from 1960 to present. Topics to be addressed include Pop Art, Conceptual Art, Minimalism, Performance Art, and other recent art forms and movements.

**ART HS 2291 Issues And Ideas In Art History: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. Intensive studies of a few selected works from various eras and cultures, with special attention to the particular social and cultural factors surrounding their creation. May be repeated for credit with a change of topic and permission of advisor.

**ART HS 3303 Media And Technique In Art History: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. Technical demonstration of and research into various materials and media used by artists. In addition to ancient media such as egg tempera and fresco, it will include modern media such as photography and video.

**ART HS 3350 Studies in Design: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. The course examines selected topics in the history of design, and may include genres such as architecture, material culture, or graphic design. May be repeated for credit with a different topic, for a maximum of 6 credit hours.

**ART HS 3360 Photography And Society: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. A study of photography as a means of information and expression, as an influence on culture, and as a reflection of concepts in politics, science, morality, and art. This course counts toward the major.

**ART HS 3365 The Artist And The City: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. Examines the role of urban centers as a locus for significant artistic activity, as a recurring theme in art, and as spatial and physical architectural realities. Aspects of urban planning, urban imagery in art and the social, political, and personal networks artists develop as a result of living in particular urban centers at particular moments in history will be among the topics discussed.

**ART HS 3374 Philosophy Of Art: 3 semester hours**

Same as PHIL 3374. A critical study of issues as the definition of art, the nature of aesthetic experience, meaning and interpretation in the arts, art and emotion, value in art.



**ART HS 3376 Gender in the Visual Arts: 3 semester hours**

Same as GS 3376. Prerequisites: Minimum of one 2000-level course in art history and ENGL 3100, or consent of instructor. Selected topics in the role of gender difference in the production and reception of works of visual art and culture. This course will consider examples of historical and contemporary works through gender theories and the analysis of cultural and social factors that contribute to the construction of sexualities and genders.

**ART HS 3385 Studies In Architectural History: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. A study of selected topics in architectural history. The content of the course will vary, and the course may be repeated for credit with permission of the instructor and departmental advisor. Possible topics include the history of the castle, factory architecture, the evolution of the Gothic cathedral, and domestic and vernacular architecture.

**ART HS 3387 Professional Internship: 1-6 semester hours**

Prerequisites: Minimum of two 2000-level courses in art history and ENGL 3100 and consent of instructor. The internship provides experience in museums, historical societies, galleries, design firms, or visual resource collections. Students will assist in the diverse duties associated with the day-to-day functions of the institution, under the joint direction of a faculty advisor and a supervisor at the institution. Course requirements may include readings, research assignments, and/or a paper. This course may be counted for art history or studio art credit with the department's consent.

**ART HS 3388 St. Louis Art Museum Internship: 3 semester hours**

Prerequisites: Art & Art History or Anthropology major, minimum of two 2000-level courses in art history and ENGL 3100 and consent of instructor. Students selected by the Internship Committee will work 15-20 hours per week under the direction of staff at the St. Louis Art Museum. Projects may include research on the collection, exhibitions, and programs.

**ART HS 3389 Visual Resources Management: 1-3 semester hours**

Prerequisites: Minimum of two 2000-level courses in Art History, ENGL 3100, and consent of instructor. A hands-on course in the Department of Art and Art History's media center that will cover collection development and management as well as technical and theoretical issues in the visual resources profession.

**ART HS 3390 Special Study: 1-4 semester hours**

Prerequisite: Junior or senior standing. Consent of instructor and Art History advisor. Independent study through readings, reports or field research. May be repeated one time with consent of Art History advisor. My not be used for internship credit.

**ART HS 3391 Selected Themes In Art History: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. The course examines selected themes in art history. Course content will vary; the course may be repeated for credit with a different theme, for a maximum of 6 credit hours.

**ART HS 3393 Art Museum And Gallery Management: 3 semester hours**

Prerequisites: Minimum of two 2000-level courses in Art History and ENGL 3100 or consent of instructor. This course will consider the practical application of professional training in art history as it applies to not-for-profit gallery management. Topics covered will include: grant writing in the arts, the development of art exhibits, the role of the art curator, and the operation of a gallery.

**ART HS 3395 Sophomore/Junior Seminar: Research in Art History: 3 semester hours**

Prerequisite: Minimum of two 2000-level courses in Art Hist and ENGL 3100, or consent of instructor. An introduction to research and writing techniques in art history, organized around a topic to be announced. Course includes directed readings, research and writing.

**ART HS 3396 The Nude In Art: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. An exploration of the various meanings of nudity in art. The cultural, social and psychological contexts of nudity and geographic regions, both western and non-western. Representations of both males and females will be analyzed in terms of gender construction, political authority, and personal identity.

**ART HS 3397 Landscape Perspectives In Art: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. This seminar considers the various conventions for representing landscape and nature, and human relationships to landscape, throughout history and across cultures. Issues to be considered may include: landscape as metaphor in European painting; contemporary earthworks; lanscape photography; and the relationship of artist to landscape in the non-western world.

**ART HS 3398 The Portrait: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. An examination of portraiture in its social, economic and political contexts. Group and individual portraits will be analyzed in terms of gender construction, social status, family history and personal and public identity throughout selected periods of western and non-Western culture.

**ART HS 4408 Topics In The Arts Of Asia: 3 semester hours**

Prerequisites: ART HS 1108 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in the arts of Asia. The content of the course will vary. May be repeated for credit with permission of instructor and advisor. This course satisfies the cultural diversity requirement.

**ART HS 4411 Topics In Ancient Art And Archaeology: 3 semester hours**

Prerequisites: ART HS 2211, ART HS 2212, or ART HS 2213, and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of some aspect of ancient art and archaeology, with emphasis prior to the common era. May be repeated for credit with permission of instructor and advisor.

**ART HS 4425 Topics In Medieval Art: 3 semester hours**

Prerequisite: ART HS 2225 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. A study of the selected topics in Medieval art. The content of the course will vary, focusing on single topics such as manuscript painting, the Gothic cathedral and its sculptural decoration, or the art of pilgrimage churches. May be repeated for credit with permission of instructor.

**ART HS 4435 Topics In Renaissance Art: 3 semester hours**

Prerequisites: ART HS 2235, and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Studies of selected topics, which will vary. Subjects to be considered may include the art of Florence, the role of patronage in Renaissance Italy and Papal art. May be repeated for credit with a different topic.

**ART HS 4445 Topics In 17Th And 18Th Century European Art: 3 semester hours**

Prerequisite: ART HS 2245 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. A study of selected topics in Baroque and Rococo art. The content of the course will vary, focusing on single areas, such as the Baroque in Rome, or on major artists; such as Bernini, Rubens and Rembrandt. May be repeated for credit with permission of instructor and advisor.

**ART HS 4455 Topics In Modern Art: 3 semester hours**

Prerequisites: ART HS 2255 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in art of the nineteenth and/or twentieth centuries. May be repeated for credit with permission of instructor and advisor.

**ART HS 4475 Topics In American Art: 3 semester hours**

Prerequisites: ART HS 2270 or ART HS 2272 or ART HS 2279 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in American art. May be repeated for credit with permission of instructor and advisor.

**ART HS 4481 Topics In Contemporary Art: 3 semester hours**

Prerequisites: ART HS 2281 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in art since 1960. May be repeated for credit with permission of instructor and advisor.

**ART HS 4490 Special Study: 1-4 semester hours**

Prerequisite: Junior/Senior standing. Consent of instructor and Art History advisor. Independent study through readings, reports, or field research. May be repeated one time with consent of Art History advisor. May not be used for internship credit.

**ART HS 4495 Senior Seminar: Methods of Art History: 3 semester hours**

Prerequisite: ART HS 3395, ENGL 3100 and Senior standing in art history or consent of instructor. An advanced class in the methods of art historical analysis. Theoretical perspectives will include connoisseurship, style, iconography, social history, and others.

**ART HS 5578 Topics In American Art: 3 semester hours**

Prerequisites: Graduate standing and consent of instructor. This course examines a discrete aspect of the history of American art within the changing social, cultural and historical contexts of Euro-American and/or Native American experiences and traditions.

**ART HS 5592 The History Of The Visual Arts In American Museums: 3 semester hours**

Same as ANTHRO 5592 and HIST 5592. Prerequisites: Graduate standing and consent of instructor. This course is an introduction to selected topics in the history of museology, focusing on art and anthropology museums as sites for the interpretations of art and culture, and as contested meeting grounds for various views of history and culture.

**ART HS 6035 Foundations In Museology I: 3 semester hours**

Same as ANTHRO 6135 and HIST 6135. Prerequisites: Consent of Director of Museum Studies Program. Concepts for understanding museums in their social and cultural context; history of museums; museology and general social theory; information transfer vs. meaning-making models; museums and communities; the changing role of museums; museums as complex organizations; process models of museology.

**ART HS 6036 Foundations Of Museology II: 3 semester hours**

Same as ANTHRO 6136 and HIST 6136. Prerequisites: ART HS 6035 consent of Director of Museum Studies Program Audience-centered approaches to museology; visitor research and learning theory; philosophical and practical considerations in museum planning; the physical design of museums; creativity; exhibit and program development; collections and curation; the challenge of diversity; the future of museums.

**ART HS 6037 Museum Organization and Operations: 3 semester hours**

Same as ANTHRO 6137 and HIST 6137. Prerequisites: Consent of Director of Museum Studies Program. This course looks at museum organization and operations in the 21st century. As museums become more focused on visitors, communities, and private donors, their structures, staffing, and practices have changed. This course introduces students to the wide range of museum professions, the evolving function of museums, the effects of new technologies, and the challenges of administration and funding in constrained economic circumstances. The course includes scrutiny of ethical issues such as disputed collections, intellectual property rights, organizational conflicts, and community collaboration and planning.

**ART HS 6038 Museum Studies Master's Project: 4 semester hours**

Same as ANTHRO 6138 and HIST 6138. Prerequisites: Consent of Director of Museum Studies Program. Research and writing/exhibit development on a selected topic.

## Courses

**ART HS 1100 Introduction To Western Art: 3 semester hours**

An introduction to major historical movements in Western art.

**ART HS 1101 Ideas in Art History: 3 semester hours**

Prerequisites: ART HS 1100 or consent of instructor. Studies of selected works of art, with attention to the social and cultural factors surrounding their creation. May not count for a major or minor in art history.

**ART HS 1103 Pre-Columbian Art and Architecture of Meso-and South America: 3 semester hours**

An overview of Pre-Columbian art and architecture that examines the contributions of Olmec, Toltec, Maya, Aztec, Inca, Andean and other Meso-American and South American cultures from prehistoric times until the Spanish intervention in the early 1500s.

**ART HS 1104 Indigenous Arts Of North America: 3 semester hours**

A survey of the indigenous arts of North America from precontact through the present. Cultures to be covered include Iroquois and Ojibway of the Northeast; Navajo and Pueblo of the Southwest; Kwagwath and Gitsxan of the Northwest Coast; and Inuit from the Arctic. The relationship of art to religion, philosophy, politics, and social life will be explored.

**ART HS 1105 Introduction To The Arts Of Africa: 3 semester hours**

A survey of the major art forms of Africa and the African Diaspora. The course addresses traditional media, such as architecture, masquerade, regalia, sculpture, metalwork, ceramics, and textiles, as well as contemporary sculpture, painting, photography, and performance. This course satisfies the cultural diversity requirement.

**ART HS 1108 Introduction To The Arts Of Asia: 3 semester hours**

A survey of the major achievements in architecture, sculpture, and painting of India, China, Japan, and Southeast Asia, with an emphasis on religious, historical, and social context of the arts. This course satisfies the cultural diversity requirement.

**ART HS 2211 Art And Archaeology Of The Ancient World: 3 semester hours**

Prerequisite: ART HS 1100. A survey of art in Egypt, the ancient Near East, Greece, and Rome, beginning in the Neolithic era (8000-4000 BC) and ending with the Barbarian invasions of Italy in the fifth century A.D. The major highlights of architecture and city planning, sculpture, painting, pottery, and the minor arts will be covered.

**ART HS 2212 Greek Art And Archaeology: 3 semester hours**

General survey of material culture in the Aegean basin, beginning with the Bronze Age (Third Millennium B.C.) and terminating in the late Hellenistic period (Second Century B.C.). For the Hellenistic period the course will trace Greek developments and influences outside of the Aegean, for example in Italy and in Egypt.

**ART HS 2225 Medieval Art: 3 semester hours**

A survey of the art and architecture of the Mediterranean World and northern Europe from late antiquity to the late Gothic period (300-1300 A.D.). Focus on new styles and subject matter in painting, sculpture and architecture.

**ART HS 2235 Italian And Northern European Renaissance Art: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. An introduction to selected artworks, artists and patrons in Italy and Northern Europe throughout the fifteenth and sixteenth centuries, beginning with Ghiberti and Van Eyck and ending with Michelangelo and Brughel.

**ART HS 2238 Italian Renaissance Art: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. Study of sculpture, paintings, and architecture in Florence, Rome, and Venice during the fourteenth, fifteenth, & sixteenth centuries as reflections of cultural, religious, philosophical, and political beliefs.

**ART HS 2240 French Art And Architecture 1400-1715: 3 semester hours**

Prerequisite: ART HS 1100. A survey of art and architecture in France from the late medieval period to the late baroque. Topics will include the development of French chateaux and gardens, the rise of the Academy, and the influence of royal patronage on the arts.

**ART HS 2245 Baroque Art And Architecture: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. A survey of the major paintings, statues, buildings, and their artists and patrons in seventeenth-century Italy, France, Flanders, Holland, and Spain. Special attention will be given to the study of the city of Rome.

**ART HS 2248 Eighteenth Century European Art: 3 semester hours**

Prerequisites: ART HS 1100 or permission of the instructor. A survey of European art and architecture from 1700 to 1800, primarily in England, France, and Italy. Topics will include the Rococo and Georgian styles; the Classical and Gothic revivals; the impact of the Enlightenment; the Grand Tour and admiration of antiquity; and decorative arts, including ceramics, interior design, and gardens.

**ART HS 2250 Nineteenth Century European Art: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. A survey of European art from 1780 to 1880, focusing on developments in England, France, Germany, and Scandinavia. Topics to be addressed include Neoclassicism, Romanticism, Realism, and Impressionism.

**ART HS 2255 Modern Art: 3 semester hours**

Prerequisite: ART HS 1100 or consent of the instructor. A survey of art from 1880 to 1960. Topics to be addressed include Post-Impressionism, Cubism, Surrealism, Abstract Expressionism, and non-representational art.

**ART HS 2265 History Of Photography: 3 semester hours**

Prerequisite: ART HS 1100 or consent of instructor. A study of photography: its historical development, an examination of it as an art medium, and its influence on the development of modern art.

**ART HS 2270 American Art To 1876: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. An overview of the major developments in painting, sculpture, and the decorative arts in the United States to 1876.

**ART HS 2272 American Art Since 1876: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. Major developments in American painting, sculpture, and the decorative arts since 1876.

**ART HS 2279 American Architecture: 3 semester hours**

Prerequisites: ART HS 1100 or consent of the instructor. An overview of American Architectural practice from 1600 to the present.

**ART HS 2281 Art Since 1960: 3 semester hours**

Prerequisite: ART HS 1100 or consent of the instructor. A survey of art from 1960 to present. Topics to be addressed include Pop Art, Conceptual Art, Minimalism, Performance Art, and other recent art forms and movements.

**ART HS 2291 Issues And Ideas In Art History: 3 semester hours**

Prerequisites: ART HS 1100 or permission of instructor. Intensive studies of a few selected works from various eras and cultures, with special attention to the particular social and cultural factors surrounding their creation. May be repeated for credit with a change of topic and permission of advisor.

**ART HS 3303 Media And Technique In Art History: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. Technical demonstration of and research into various materials and media used by artists. In addition to ancient media such as egg tempera and fresco, it will include modern media such as photography and video.

**ART HS 3350 Studies in Design: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. The course examines selected topics in the history of design, and may include genres such as architecture, material culture, or graphic design. May be repeated for credit with a different topic, for a maximum of 6 credit hours.

**ART HS 3360 Photography And Society: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. A study of photography as a means of information and expression, as an influence on culture, and as a reflection of concepts in politics, science, morality, and art. This course counts toward the major.

**ART HS 3365 The Artist And The City: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. Examines the role of urban centers as a locus for significant artistic activity, as a recurring theme in art, and as spatial and physical architectural realities. Aspects of urban planning, urban imagery in art and the social, political, and personal networks artists develop as a result of living in particular urban centers at particular moments in history will be among the topics discussed.

**ART HS 3374 Philosophy Of Art: 3 semester hours**

Same as PHIL 3374. A critical study of issues as the definition of art, the nature of aesthetic experience, meaning and interpretation in the arts, art and emotion, value in art.



**ART HS 3376 Gender in the Visual Arts: 3 semester hours**

Same as GS 3376. Prerequisites: Minimum of one 2000-level course in art history and ENGL 3100, or consent of instructor. Selected topics in the role of gender difference in the production and reception of works of visual art and culture. This course will consider examples of historical and contemporary works through gender theories and the analysis of cultural and social factors that contribute to the construction of sexualities and genders.

**ART HS 3385 Studies In Architectural History: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. A study of selected topics in architectural history. The content of the course will vary, and the course may be repeated for credit with permission of the instructor and departmental advisor. Possible topics include the history of the castle, factory architecture, the evolution of the Gothic cathedral, and domestic and vernacular architecture.

**ART HS 3387 Professional Internship: 1-6 semester hours**

Prerequisites: Minimum of two 2000-level courses in art history and ENGL 3100 and consent of instructor. The internship provides experience in museums, historical societies, galleries, design firms, or visual resource collections. Students will assist in the diverse duties associated with the day-to-day functions of the institution, under the joint direction of a faculty advisor and a supervisor at the institution. Course requirements may include readings, research assignments, and/or a paper. This course may be counted for art history or studio art credit with the department's consent.

**ART HS 3388 St. Louis Art Museum Internship: 3 semester hours**

Prerequisites: Art & Art History or Anthropology major, minimum of two 2000-level courses in art history and ENGL 3100 and consent of instructor. Students selected by the Internship Committee will work 15-20 hours per week under the direction of staff at the St. Louis Art Museum. Projects may include research on the collection, exhibitions, and programs.

**ART HS 3389 Visual Resources Management: 1-3 semester hours**

Prerequisites: Minimum of two 2000-level courses in Art History, ENGL 3100, and consent of instructor. A hands-on course in the Department of Art and Art History's media center that will cover collection development and management as well as technical and theoretical issues in the visual resources profession.

**ART HS 3390 Special Study: 1-4 semester hours**

Prerequisite: Junior or senior standing. Consent of instructor and Art History advisor. Independent study through readings, reports or field research. May be repeated one time with consent of Art History advisor. My not be used for internship credit.

**ART HS 3391 Selected Themes In Art History: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. The course examines selected themes in art history. Course content will vary; the course may be repeated for credit with a different theme, for a maximum of 6 credit hours.

**ART HS 3393 Art Museum And Gallery Management: 3 semester hours**

Prerequisites: Minimum of two 2000-level courses in Art History and ENGL 3100 or consent of instructor. This course will consider the practical application of professional training in art history as it applies to not-for-profit gallery management. Topics covered will include: grant writing in the arts, the development of art exhibits, the role of the art curator, and the operation of a gallery.

**ART HS 3395 Sophomore/Junior Seminar: Research in Art History: 3 semester hours**

Prerequisite: Minimum of two 2000-level courses in Art Hist and ENGL 3100, or consent of instructor. An introduction to research and writing techniques in art history, organized around a topic to be announced. Course includes directed readings, research and writing.

**ART HS 3396 The Nude In Art: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. An exploration of the various meanings of nudity in art. The cultural, social and psychological contexts of nudity and geographic regions, both western and non-western. Representations of both males and females will be analyzed in terms of gender construction, political authority, and personal identity.

**ART HS 3397 Landscape Perspectives In Art: 3 semester hours**

Prerequisite: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. This seminar considers the various conventions for representing landscape and nature, and human relationships to landscape, throughout history and across cultures. Issues to be considered may include: landscape as metaphor in European painting; contemporary earthworks; lanscape photography; and the relationship of artist to landscape in the non-western world.

**ART HS 3398 The Portrait: 3 semester hours**

Prerequisites: Minimum of one 2000-level course in Art History and ENGL 3100, or consent of instructor. An examination of portraiture in its social, economic and political contexts. Group and individual portraits will be analyzed in terms of gender construction, social status, family history and personal and public identity throughout selected periods of western and non-Western culture.

**ART HS 4408 Topics In The Arts Of Asia: 3 semester hours**

Prerequisites: ART HS 1108 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in the arts of Asia. The content of the course will vary. May be repeated for credit with permission of instructor and advisor. This course satisfies the cultural diversity requirement.

**ART HS 4411 Topics In Ancient Art And Archaeology: 3 semester hours**

Prerequisites: ART HS 2211, ART HS 2212, or ART HS 2213, and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of some aspect of ancient art and archaeology, with emphasis prior to the common era. May be repeated for credit with permission of instructor and advisor.

**ART HS 4425 Topics In Medieval Art: 3 semester hours**

Prerequisite: ART HS 2225 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. A study of the selected topics in Medieval art. The content of the course will vary, focusing on single topics such as manuscript painting, the Gothic cathedral and its sculptural decoration, or the art of pilgrimage churches. May be repeated for credit with permission of instructor.

**ART HS 4435 Topics In Renaissance Art: 3 semester hours**

Prerequisites: ART HS 2235, and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Studies of selected topics, which will vary. Subjects to be considered may include the art of Florence, the role of patronage in Renaissance Italy and Papal art. May be repeated for credit with a different topic.



**ART HS 4445 Topics In 17Th And 18Th Century European Art: 3 semester hours**

Prerequisite: ART HS 2245 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. A study of selected topics in Baroque and Rococo art. The content of the course will vary, focusing on single areas, such as the Baroque in Rome, or on major artists; such as Bernini, Rubens and Rembrandt. May be repeated for credit with permission of instructor and advisor.

**ART HS 4455 Topics In Modern Art: 3 semester hours**

Prerequisites: ART HS 2255 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in art of the nineteenth and/or twentieth centuries. May be repeated for credit with permission of instructor and advisor.

**ART HS 4475 Topics In American Art: 3 semester hours**

Prerequisites: ART HS 2270 or ART HS 2272 or ART HS 2279 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in American art. May be repeated for credit with permission of instructor and advisor.

**ART HS 4481 Topics In Contemporary Art: 3 semester hours**

Prerequisites: ART HS 2281 and ENGL 3100, or one 3000-level course in Art History, or consent of instructor. Intensive study of selected topics in art since 1960. May be repeated for credit with permission of instructor and advisor.

**ART HS 4490 Special Study: 1-4 semester hours**

Prerequisite: Junior/Senior standing. Consent of instructor and Art History advisor. Independent study through readings, reports, or field research. May be repeated one time with consent of Art History advisor. May not be used for internship credit.

**ART HS 4495 Senior Seminar: Methods of Art History: 3 semester hours**

Prerequisite: ART HS 3395, ENGL 3100 and Senior standing in art history or consent of instructor. An advanced class in the methods of art historical analysis. Theoretical perspectives will include connoisseurship, style, iconography, social history, and others.

**ART HS 5578 Topics In American Art: 3 semester hours**

Prerequisites: Graduate standing and consent of instructor. This course examines a discrete aspect of the history of American art within the changing social, cultural and historical contexts of Euro-American and/or Native American experiences and traditions.

**ART HS 5592 The History Of The Visual Arts In American Museums: 3 semester hours**

Same as ANTHRO 5592 and HIST 5592. Prerequisites: Graduate standing and consent of instructor. This course is an introduction to selected topics in the history of museology, focusing on art and anthropology museums as sites for the interpretations of art and culture, and as contested meeting grounds for various views of history and culture.

**ART HS 6035 Foundations In Museology I: 3 semester hours**

Same as ANTHRO 6135 and HIST 6135. Prerequisites: Consent of Director of Museum Studies Program. Concepts for understanding museums in their social and cultural context; history of museums; museology and general social theory; information transfer vs. meaning-making models; museums and communities; the changing role of museums; museums as complex organizations; process models of museology.

**ART HS 6036 Foundations Of Museology II: 3 semester hours**

Same as ANTHRO 6136 and HIST 6136. Prerequisites: ART HS 6035 consent of Director of Museum Studies Program Audience-centered approaches to museology; visitor research and learning theory; philosophical and practical considerations in museum planning; the physical design of museums; creativity; exhibit and program development; collections and curation; the challenge of diversity; the future of museums.

**ART HS 6037 Museum Organization and Operations: 3 semester hours**

Same as ANTHRO 6137 and HIST 6137. Prerequisites: Consent of Director of Museum Studies Program. This course looks at museum organization and operations in the 21st century. As museums become more focused on visitors, communities, and private donors, their structures, staffing, and practices have changed. This course introduces students to the wide range of museum professions, the evolving function of museums, the effects of new technologies, and the challenges of administration and funding in constrained economic circumstances. The course includes scrutiny of ethical issues such as disputed collections, intellectual property rights, organizational conflicts, and community collaboration and planning.

**ART HS 6038 Museum Studies Master's Project: 4 semester hours**

Same as ANTHRO 6138 and HIST 6138. Prerequisites: Consent of Director of Museum Studies Program. Research and writing/exhibit development on a selected topic.

## Astronomy

### Courses

**ASTRON 1001 Cosmic Evolution Introductory Astronomy: 4 semester hours**

Overview of astronomy, from the planets to the Big Bang. Topics include the celestial motions, planets and the formation of the solar system, stars and stellar evolution, galaxies, and cosmology. Students will be introduced to the latest discoveries and how they affect our understanding of the universe. The format is three classroom hours and one 2-hour laboratory session per week to enhance lecture material.

**ASTRON 1001A Cosmic Evolution/Introduction Astronomy: 3 semester hours**

Overview of astronomy, from the planets to the Big Bang. Topics include the celestial motions, planets and the formation of the solar system, stars and stellar evolution, galaxies, and cosmology. Students will be introduced to the latest discoveries and how they affect our understanding of the universe. Three classroom hours per week. Same as ASTRON 1001 without the laboratory.

**ASTRON 1011 Planets And Life In The Universe: 3 semester hours**

Man's concept of the solar system from Stonehenge to Einstein; geology and meteorology of the planets of our solar system, with particular attention to results from the space program; exobiology--study of the possibilities of life on other worlds and the best method of communicating with it. Three lecture hours per week.

**ASTRON 1012 The Violent Universe And The New Astronomy: 3 semester hours**

A nontechnical course focusing on recent results which larger telescopes and the space program have made available. Pulsars, x-ray stars, and black holes; radio astronomy, our galaxy, and interstellar molecules; exploding galaxies and quasars; origin of the expanding universe. Three lecture hours and one observing session per week.

**ASTRON 1050 Introduction To Astronomy I: 3 semester hours**

Prerequisites: MATH 1030 and MATH 1035. A survey of the history of astronomy from the ancient times to present. Theories for the formation and evolution of the solar system and the general features of the solar system and planetary motions are discussed. The physical concept of gravity is presented. The detailed properties of the planets, comets, and asteroids are reviewed, concentrating on recent results from space missions.

**ASTRON 1051 Introduction To Astronomy II: 3 semester hours**

Prerequisites: MATH 1030 and MATH 1035. A survey of astronomy beyond the solar system. Topics include stars and stellar evolution, neutron stars, and black holes. The physical concept of light and the design of telescopes is discussed in detail. The structure of the Milky Way Galaxy and the large scale structure of the universe are explored. Dark matter, quasars, and active galactic nuclei are discussed in the context of theories for the formation and evolution of the universe. Course does not need to be taken in sequence with ASTRON 1050.

**ASTRON 1121 The Search For Extraterrestrial Life: 3 semester hours**

Prerequisite: ASTRON 1001 or ASTRON 1011. Are we alone? The possibility of life in the universe in addition to our own will be explored. Our discussion of the chances for extraterrestrial life will be built around the current theories of chemical, biological, and cultural evolution which have led to our own technological civilization on Earth. Strategies for communication with extraterrestrial intelligence will be discussed.

**ASTRON 4301 Astrophysics: 3 semester hours**

Prerequisite: PHYSICS 3231 or consent of instructor. A Moderately technical introduction to astrophysics. Topics will include: physics of stellar interiors and atmospheres; interpretation of stellar spectra; stellar evolution; radio astronomy; and cosmology.

**ASTRON 4322 Observational Astronomy: 4 semester hours**

Prerequisite: ASTRON 1050, ASTRON 1051 and PHYSICS 3231. Tools of the astronomer: telescopes, spectroscopy, photoelectric photometry. Students will work on a number of projects which will enable them to develop expertise in obtaining, reducing, and analyzing astronomical observations. Student night observing will be an important part of the course. This course is primarily for persons who are astronomy or physics majors or who have some equivalent background.

## Courses

**ASTRON 1001 Cosmic Evolution Introductory Astronomy: 4 semester hours**

Overview of astronomy, from the planets to the Big Bang. Topics include the celestial motions, planets and the formation of the solar system, stars and stellar evolution, galaxies, and cosmology. Students will be introduced to the latest discoveries and how they affect our understanding of the universe. The format is three classroom hours and one 2-hour laboratory session per week to enhance lecture material.

**ASTRON 1001A Cosmic Evolution/Introduction Astronomy: 3 semester hours**

Overview of astronomy, from the planets to the Big Bang. Topics include the celestial motions, planets and the formation of the solar system, stars and stellar evolution, galaxies, and cosmology. Students will be introduced to the latest discoveries and how they affect our understanding of the universe. Three classroom hours per week. Same as ASTRON 1001 without the laboratory.

**ASTRON 1011 Planets And Life In The Universe: 3 semester hours**

Man's concept of the solar system from Stonehenge to Einstein; geology and meteorology of the planets of our solar system, with particular attention to results from the space program; exobiology--study of the possibilities of life on other worlds and the best method of communicating with it. Three lecture hours per week.

**ASTRON 1012 The Violent Universe And The New Astronomy: 3 semester hours**

A nontechnical course focusing on recent results which larger telescopes and the space program have made available. Pulsars, x-ray stars, and black holes; radio astronomy, our galaxy, and interstellar molecules; exploding galaxies and quasars; origin of the expanding universe. Three lecture hours and one observing session per week.

**ASTRON 1050 Introduction To Astronomy I: 3 semester hours**

Prerequisites: MATH 1030 and MATH 1035. A survey of the history of astronomy from the ancient times to present. Theories for the formation and evolution of the solar system and the general features of the solar system and planetary motions are discussed. The physical concept of gravity is presented. The detailed properties of the planets, comets, and asteroids are reviewed, concentrating on recent results from space missions.

**ASTRON 1051 Introduction To Astronomy II: 3 semester hours**

Prerequisites: MATH 1030 and MATH 1035. A survey of astronomy beyond the solar system. Topics include stars and stellar evolution, neutron stars, and black holes. The physical concept of light and the design of telescopes is discussed in detail. The structure of the Milky Way Galaxy and the large scale structure of the universe are explored. Dark matter, quasars, and active galactic nuclei are discussed in the context of theories for the formation and evolution of the universe. Course does not need to be taken in sequence with ASTRON 1050.

**ASTRON 1121 The Search For Extraterrestrial Life: 3 semester hours**

Prerequisite: ASTRON 1001 or ASTRON 1011. Are we alone? The possibility of life in the universe in addition to our own will be explored. Our discussion of the chances for extraterrestrial life will be built around the current theories of chemical, biological, and cultural evolution which have led to our own technological civilization on Earth. Strategies for communication with extraterrestrial intelligence will be discussed.

**ASTRON 4301 Astrophysics: 3 semester hours**

Prerequisite: PHYSICS 3231 or consent of instructor. A Moderately technical introduction to astrophysics. Topics will include: physics of stellar interiors and atmospheres; interpretation of stellar spectra; stellar evolution; radio astronomy; and cosmology.

**ASTRON 4322 Observational Astronomy: 4 semester hours**

Prerequisite: ASTRON 1050, ASTRON 1051 and PHYSICS 3231. Tools of the astronomer: telescopes, spectroscopy, photoelectric photometry. Students will work on a number of projects which will enable them to develop expertise in obtaining, reducing, and analyzing astronomical observations. Student night observing will be an important part of the course. This course is primarily for persons who are astronomy or physics majors or who have some equivalent background.

## Atmospheric Science

## Courses

### **ATM SCI 1001 Elementary Meteorology: 4 semester hours**

Prerequisites: MATH 1020 or equivalent. An elementary course covering atmospheric phenomena, weather, and climate. Topics included are temperature, pressure, and moisture distributions in the atmosphere and dynamical effects such as radiation, stability, storms, and general circulation. Four classroom hours per week with one hour being a learning enhancement session to include demonstrations and exercises on problem solving.

### **ATM SCI 1001A Elementary Meteorology: 3 semester hours**

Prerequisite: MATH 1020 or equivalent. An elementary course covering atmospheric phenomena, weather, and climate. Topics included are temperature, pressure, and moisture distributions in the atmosphere and dynamical effect such as radiation, stability, storms, and general circulation. Same as ATM SCI 1001 without the learning enhancement session.

## Courses

### **ATM SCI 1001 Elementary Meteorology: 4 semester hours**

Prerequisites: MATH 1020 or equivalent. An elementary course covering atmospheric phenomena, weather, and climate. Topics included are temperature, pressure, and moisture distributions in the atmosphere and dynamical effects such as radiation, stability, storms, and general circulation. Four classroom hours per week with one hour being a learning enhancement session to include demonstrations and exercises on problem solving.

### **ATM SCI 1001A Elementary Meteorology: 3 semester hours**

Prerequisite: MATH 1020 or equivalent. An elementary course covering atmospheric phenomena, weather, and climate. Topics included are temperature, pressure, and moisture distributions in the atmosphere and dynamical effect such as radiation, stability, storms, and general circulation. Same as ATM SCI 1001 without the learning enhancement session.

## Biology

## Courses

### **BIOL 1010 Introduction to Student Biological Research: 1-2 semester hours**

Prerequisites: Permission of Instructor. An opportunity for high school students to develop individual research projects under faculty mentorship. Includes interdisciplinary lectures, demonstrations, seminars, and project guidance. Evaluation will be based on written and oral presentation of the research project and student portfolio.

### **BIOL 1012 General Biology: 3 semester hours**

Emphasis on fundamental principles of biology. BIOL 1012 can be applied toward fulfillment of the general education requirement in science. BIOL 1012 does not satisfy the prerequisite requirements in other courses in biology at the 2000 level or above. Students who plan to pursue a career in medicine or one of the medical-oriented professions should enroll in BIOL 1831 rather than BIOL 1012.

### **BIOL 1013 General Biology Laboratory: 2 semester hours**

Prerequisite: BIOL 1012 (may be taken concurrently). Laboratory course to accompany BIOL 1012. BIOL 1013 can be used to fulfill the general education requirements in a laboratory science. BIOL 1013 does not meet the prerequisite requirements for other courses in biology. Three and one-half hours of laboratory per week.

### **BIOL 1102 Human Biology: 3 semester hours**

Lectures and readings concerned with the reproduction, development, genetics, functional anatomy, behavior, ecology, and evolution of the human species. Three hours lecture per week. Fulfills Science/Math requirement.

### **BIOL 1131 Human Physiology And Anatomy I: 4 semester hours**

Prerequisite: BIOL 1012 or its equivalent. The basic aspects of the structure of the healthy human body and how it functions. Special emphasis is on how the human body adapts itself to its environment and how changes affect physiological activities. Three hours lecture and two hours laboratory per week.

### **BIOL 1141 Human Physiology And Anatomy II: 4 semester hours**

Prerequisite: BIOL 1131. A continuation of BIOL 1131. A study of the basic aspects of human physiology and anatomy. Three hours lecture and two hours laboratory per week.

### **BIOL 1162 General Microbiology: 3 semester hours**

Prerequisite: BIOL 1012 or its equivalent. A survey of microbiology structure, genetics, and physiology. Special emphasis will be placed on the transmission and control of such organisms as it relates to the maintenance of human health. Three hours of lecture per week.

### **BIOL 1202 Environmental Biology: 3 semester hours**

An examination of the biological basis of current environmental problems, with emphasis upon resources, energy, pollution and conservation. Three hours lecture per week. Fulfills Science/Math requirement.

### **BIOL 1821 Introductory Biology: Organisms And The Environment: 5 semester hours**

Prerequisites: A minimum of high school chemistry, ENGL 1100 or equivalent (may be taken concurrently), and placement into college algebra or higher. Required for students intending to major in biology or take specified biology courses at the 2000 level or above. This course presents an introduction to some of the principles of biology and scientific methodology applied to the organism and supraorganism levels of biology. Topics to be covered include: ecology, evolution, diversity, and population biology. Three hours of lecture and one hour of discussion per week.

### **BIOL 1831 Introductory Biology: From Molecules To Organisms: 5 semester hours**

Prerequisites: A minimum of high school chemistry and MATH 1030; ENGL 1100 or equivalent (may be taken concurrently). Required for students intending to major in biology or take specified biology courses at the 2000 level or above. This course presents an introduction to some of the principles of biology and scientific methodology applied to the molecular/ cellular through organ system levels of organization. Topics include: cell structure, metabolism, reproduction, heredity and major physiological processes regulated by organ systems. Three hours of lecture, three and one half hours of lab, and one hour of discussion per week.

### **BIOL 1999 Evolution for Everyone: 3 semester hours**

Evolution for Everyone explores the development of our current understanding by examining modern and ancient controversies, and by studying major processes by which change occurs. Lectures will present overviews and many examples on topics in history, mechanisms, and outcome of evolutionary change, and students will participate in classroom and online discussions based on readings, computer exercises, and data collection and analysis. Course may not be applied towards major in Biology. Not eligible for credit with BIOL 3302 (Introduction to Evolution) required for Biology majors.



**BIOL 2012 Genetics: 3 semester hours**

Prerequisites: BIOL 1831 (majors must also take BIOL 1821) MATH 1030, and CHEM 1111 or (CHEM 1081 plus CHEM 1091). Fundamental principles of inheritance, including classical genetic theory as well as recent advances in the molecular basis of heredity. Three hours of lecture per week. Fulfills Science/Math requirement.

**BIOL 2013 Genetics Laboratory: 2 semester hours**

Prerequisites: Concurrent registration in BIOL 2012, or by permission of instructor. Laboratory to accompany BIOL 2012. Three and one-half hours of organized laboratory time per week. Students may need to return to the laboratory at unscheduled times to complete some exercises.

**BIOL 2102 General Ecology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. An examination of the relationships between living organisms and their environment. Three hours lecture per week. Fulfills Science/Math requirement.

**BIOL 2103 General Ecology Laboratory: 2 semester hours**

Prerequisites: BIOL 2102 required (may be taken concurrently); a general statistics course strongly recommended. An analysis of environmental factors influencing the abundance and distribution of living organisms. Some classes will be held at field sites in and around St. Louis. Three and one-half hours of laboratory or field work per week.

**BIOL 2402 Vertebrate Anatomy, Evolution and Ecology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. Development, structure, function, interrelationships, and zoogeography of vertebrate animals with particular attention to phylogenetic aspects. Three hours of lecture per week. Fulfills Science/Math requirement.

**BIOL 2403 Vertebrate Anatomy, Evolution and Ecology Laboratory: 2 semester hours**

Prerequisite: BIOL 2402 (may be taken concurrently). Laboratory to accompany BIOL 2402. Morphological analysis and systematic survey of major vertebrate groups. Overview of the vertebrate life forms and their adaptations to habitats and resources. Three and one-half hours of laboratory per week.

**BIOL 2482 Microbiology: 3 semester hours**

Prerequisites: BIOL 1831 (majors must also take BIOL 1821), MATH 1030, and CHEM 1111. Study of microorganisms, their metabolism, genetics, and their interaction with other forms of life. Three hours of lecture per week.

**BIOL 2483 Microbiology Laboratory: 2 semester hours**

Prerequisite: BIOL 2482 (may be taken concurrently). Experimental studies and procedures of microbiological techniques. Three and one-half hours of organized laboratory time per week. Students will need to return to the laboratory at unscheduled times to complete some exercises.

**BIOL 2501 Biology Of Plants: 5 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. A general discussion of the plant groups from algae through angiosperms. Plant morphology, physiology, reproduction and ecology will be discussed in lecture (three hours per week). The laboratory (three and one half hours per week) involves examination of representatives of the plant kingdom and experimentation in plant physiology and genetics. Fulfills both a lecture and laboratory requirement.

**BIOL 3001 Experiential Practicum in Biosciences: 1 semester hour**

Prerequisites: Consent of Biology Curriculum Committee. Credit for off-campus bioscience projects providing extraordinary student experience and service to a community in need.

**BIOL 3102 Animal Behavior: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. The study of invertebrate and vertebrate behavior, including neurophysiological, hormonal, developmental, genetic, ecological and evolutionary aspects of behavior; behavior interactions within and between populations. Three hours of lecture per week.

**BIOL 3103 Animal Behavior Laboratory: 2 semester hours**

Prerequisites: BIOL 3102 (may be taken concurrently). Observational and experimental studies of animal behavior in the field and laboratory. Three and one-half hours of formal laboratory time per week, but additional time may be required for independent projects. Some activities involve field trips or trips to the St. Louis Zoo.

**BIOL 3123 Tropical Resource Ecology Field Studies: 2 semester hours**

Prerequisites: BIOL 3122 (may be taken concurrently). The field component to the lecture and seminar course. Examines the patterns of use and exploitation of resources in the tropics by humans in the context of the theories of behavioral ecology. Two weeks of intensive field research and lectures in Guyana, South America during the second and third weeks of Summer Session I (trip costs to be borne by the student). Students may not receive credit for both BIOL 3123 and BIOL 5123. Offered in odd numbered years.

**BIOL 3202 Conservation Biology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. Introduction to the principles and theories of conservation biology. Course topics include biodiversity, extinctions, population modeling, habitat fragmentation, conservation area management, restoration ecology, and social science elements of conservation strategies. Class sessions will include lectures, discussions, and simulation exercises. Three hours of lecture per week.

**BIOL 3203 Conservation Biology Laboratory: 2 semester hours**

Prerequisite: BIOL 3202 (recommended to be taken concurrently). Laboratory to accompany BIOL 3202. Laboratory will include computer simulations of conservation problems using existing software, 2-3 field trips to local conservation projects, and field interviews with governmental and nongovernmental agencies. Three and one-half hours of laboratory per week.

**BIOL 3302 Introduction To Evolution: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831, and MATH 1030; BIOL 2012 strongly recommended. Introduction to the theory, events, and processes of organic evolution.

**BIOL 3622 Cell Biology: 3 semester hours**

Prerequisites: BIOL 1831, BIOL 2012, CHEM 2612, and MATH 1030. Examination of the organization and basic processes of cells including tissues, organelles, glycolysis, respiration, photosynthesis, trafficking, cytoskeleton, signal transduction, and cell division.

**BIOL 3699 Undergraduate Internship In Biotechnology: 1-4 semester hours**

Prerequisites: BIOL 1821, BIOL 1831, and CHEM 1111 and CHEM 1121 and consent of instructor. Concurrent enrollment in CHEM 2612 or higher is strongly encouraged. A 2.5 GPA and enrollment in the undergraduate Biotechnology Certificate Program is required. Internship will consist of a period of observation, experimentation and on-the-job training in a biotechnology laboratory. The laboratory may be industrial or academic. Credit will be determined by the number of hours a student works each week and in consultation between the intern's supervisor and instructor. Internship assignments will be commensurate with the education and experience of the student. Two credits may be used to fulfill the lab requirement.



**BIOL 3802 Vertebrate Physiology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831 and CHEM 1111 or CHEM 1081 plus CHEM 1091). Basic functional aspects of organ systems in relation to the physiochemical properties of protoplasm. Three hours lecture per week. Fulfills Science/Math requirement.

**BIOL 3803 Vertebrate Physiology Lab: 2 semester hours**

Prerequisite: BIOL 3802 (may be taken concurrently). Instrumental and experimental studies in physiology. Three and one-half hours laboratory per week.

**BIOL 4102 Behavioral Ecology: 3 semester hours**

Prerequisite: BIOL 3102 (BIOL 2102 recommended). Topics in animal behavior with an emphasis on ecological and evolutionary aspects of behavior. Topics will include the role of behavior in population regulation, habitat selection and spacing, feeding and predator-prey interactions, sexual selection, evolution of mating systems, and new approaches to animal communication. Three hours of lecture per week. Students may not receive credit for both BIOL 4102 and BIOL 6102.

**BIOL 4112 Evolution Of Animal Sociality: 3 semester hours**

Prerequisites: BIOL 3102, BIOL 2102, or BIOL 4182 recommended, or consent of instructor. The evolution of sociality, including a critical examination of sociobiological theories and alternative approaches to social evolution. Survey of social organization and behavior in arthropods, with an emphasis on social insects, & vertebrates Two hours of lecture, one hour of discussion per week. Students may not receive credit for both BIOL 4112 and BIOL 6112.

**BIOL 4122 Biometry: 3 semester hours**

Prerequisites: MATH 1030 and a minimum of 15 hours in biology. Reviews descriptive, analytical, and experimental methods useful for the statistical study of biological phenomena. Students will develop the skills needed to better appreciate and evaluate the published literature, as well as the ability to design their own research programs. Topics include: the collection and summarization of biological observations; development, design, and testing of hypothesis; analysis and presentation of data. Three hours of lecture per week. Fulfills the statistics requirement for the B.A. or B.S. degree in biology.

**BIOL 4182 Population Biology: 3 semester hours**

Prerequisite: BIOL 2102 and BIOL 2012 (BIOL 3302 recommended) Introduces concepts and mathematical models of population ecology and population genetics. By integrating the ecology and genetics of populations, the course goal is to understand the processes that contribute to microevolution of populations. Topics include: demography, metapopulation biology, natural selection, migration, gene flow, and genetic drift. Three hours of lecture per week. Students may not receive credit for both BIOL 4182 and BIOL 6182.

**BIOL 4192 Applications of Geographic Information Systems: 5 semester hours**

Prerequisites: BIOL 2102, BIOL 4122 or equivalent, and consent of instructor. Geographic Information Systems (GIS) are sophisticated computer-based systems for analysis, capture, presentation, and maintenance of geographically referenced data. This course provides a foundation in using GIS for spatial analysis. Although biological examples are primarily used, examples from a range of disciplines are employed to emphasize the use of GIS as a tool to support analysis and decision-making. Students will have hands-on use of GIS software during each session. An independent research project applying the spatial analysis tools learned in GIS to biological research will be required. Five hours of combined lecture and computer operations, plus 2-3 hours of open lab per week. Fulfills both a lecture and a laboratory requirement. Students may not receive credit for both BIOL 4192 and BIOL 6192.

**BIOL 4222 Tropical Ecology And Conservation: 3 semester hours**

Prerequisite: BIOL 2102, BIOL 4182, BIOL 5192, or equivalent. This Course Will Cover Research Areas In Tropical Population, Community And Ecosystem Ecology, With Emphasis On Inter-Species And Environment-Organism Interactions, Population Control Factors, And Genetic Structure Of Populations. Topics Include The Current Status And Causes Of Tropical Habitat Destruction, Ongoing Attempts To Manage Those Habitats, And Development Of Strategies Leading To Sustained Use Of Non-Renewable Resources. Three Hours Of Lecture Per Week. Students May Not Receive Credit For Both BIOL 4222 And BIOL 6222.

**BIOL 4245 Field Biology: 3 semester hours**

Prerequisite: Three biology courses and consent of instructor. Intensive study of the flora and fauna of selected natural areas of North America, including an extended field trip. Details of the field trip and course schedule will be posted in the Biology department preceding registration for the term in which the course will be offered. Students will be required to pay costs of travel and of the field trip. This is a laboratory course appropriate for advanced undergraduates and non-thesis Master of Science students. Students may not receive credit for both BIOL 4245 and BIOL 6245.

**BIOL 4270 Global Climate Change: 3 semester hours**

Prerequisites: BIOL 3302 or consent of instructor. Topics included are fundamental physical, meteorological, and biological circumstances of global climate change, as well as predictions of its future effects on biological diversity, including humans, and how those estimates are made. In addition, basic environmental economics and politics of climate change at local and global levels will be included. The course will be taught as a series of lectures and discussions led by guest experts in each of the subdisciplines covered. Students may not receive credit for both BIOL 4270 and BIOL 6270.

**BIOL 4299 Practicum In Conservation: 2 semester hours**

Prerequisites: Consent of instructor and BIOL 3643, Conservation Biology. This course is generally restricted to students officially enrolled in the Certificate Program in Conservation Biology. The course provides practical experience with conservation or environmental agencies. Specific placement will be selected according to student's interests and career goals as well as availability of agency openings. Course requirements include practical experience and final report on practicum experience.

**BIOL 4308 Transmission Electron Microscopy Hours: 3 semester hours**

Same as PHYSICS 4308 Course introduces students to transmission electron microscopy techniques and their applications to solving challenging materials and biological problems. Course includes fundamental principles (electron optics), electron-specimen interactions, diffraction of electrons, image formation and interpretation, image processing and analysis, energy dispersive X-ray spectroscopy, electron energy loss spectroscopy, and sample preparation of both biological and non-biological systems. Laboratory experiments will provide students "hands-on" experience with TEM operations and problem solving skills. Successful completion of the course enables students to independently operate transmission electron microscopes to perform basic research experiments. This course is ideal for students interested in ultrastructural or nanocharacterization of biological or materials systems. Two classroom hours and two hours of laboratory per week.

**BIOL 4402 Ornithology: 3 semester hours**

Prerequisites: BIOL 2102 and junior standing. Introduction to avian biology and ecology. Material to be covered will include basic adaptations of anatomy, physiology, and behavior of birds. There will be a strong emphasis on avian ecology and conservation. Specific topics will include flight, reproductive behavior, migration, foraging behavior, community structure, and current conservation concerns. The diversity of birds will be emphasized through comparisons between temperate and tropical regions. Three hours of lecture per week.

**BIOL 4403 Ornithology Laboratory: 2 semester hours**

Prerequisites: BIOL 4402 (may be taken concurrently), or consent of instructor. This course will introduce students to methods of identifying and studying birds. Labs will almost entirely be comprised of field trips to local areas and will emphasize diversity of birds, adaptations shown by different groups, and means of identification, particularly of birds found in Missouri. Field projects will focus on techniques for censusing birds, sampling foraging behavior, and studying habitat selection. Indoor periods will cover internal and external anatomy of birds. Slides and field trips to the St Louis Zoo will be used to survey the diversity of birds worldwide. Three and one-half hours of laboratory per week. Longer (e.g., Saturday) field trips will be made when appropriate.

**BIOL 4422 Entomology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. 9 additional hours of biology and upper-division standing. Development, structure, function, behavior and ecology of insects, including a systematic survey of the orders of Insecta. Three hours of lecture per week.

**BIOL 4423 Entomology Laboratory: 2 semester hours**

Prerequisites: BIOL 4442 (may be taken concurrently). Laboratory to accompany BIOL 4422. Studies of the morphology, physiology, and behavior of insects to give a sampling of biological studies of the class Insecta. Formation of a collection of insects, comprising a systematic survey of orders and principal families, will be an integral part of the course and will require additional time beyond the official lab hours. Three and one-half hours of lab per week.

**BIOL 4442 Developmental Biology: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 3622. A study of the basic principles that shape the embryonic and post-embryonic development of animals with an emphasis on the underlying cellular and molecular mechanisms. Specific topics include fertilization, determination of cell fate and differentiation, cell migration, establishment of the body plan, formation of selected organs and organ systems, stem cells, and limb regeneration. Environmental influences on development and the impact of developmental biology on modern medicine are also discussed. Three hours of lecture/discussion per week. Students may not receive credit for both BIOL 4442 and BIOL 6442.

**BIOL 4501 Flowering Plant Families: Phylogeny And Diversification: 5 semester hours**

Prerequisites: BIOL 1821, BIOL 1831 and junior standing or consent of instructor. Focusing on the flowering plant families of North America, the aim of the course is to give an understanding of their phylogeny and diversification. Student will also gain an understanding of plant morphology and anatomy, a basis for further developing their knowledge of plants. Three hours of lecture and three to four hours of laboratory per week. Students may need to return to the laboratory at unscheduled times.

**BIOL 4502 Evolution of Cognition: 3 semester hours**

Prerequisites: BIOL 3102 or Consent of Instructor; BIOL 3302 and PSYCH 2211 are strongly recommended. The evolutionary ecology of animal cognitive abilities. Topics include learning, memory, perception, navigation, and communication from an evolutionary perspective. The focus is on cognitive abilities as adaptations, which have evolved to solve specific environmental problems. Topics include empirical methods for assessing cognitive ability, experimental design, theoretical approaches for generating predictions, and the parsimonious interpretation of data. Two hours of lecture and one hour of discussion per week.

**BIOL 4550 Bacterial Pathogenesis: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482 Examination of the strategies bacterial pathogens use to infect animals. Topics include host immune responses to infection, bacterial virulence factors, regulation of bacterial virulence, and the cellular and molecular approaches used to study host-parasite interactions. Three hours of lecture per week. Students may not receive credit for both BIOL 4550 and BIOL 6550.

**BIOL 4602 Molecular Biology: 3 semester hours**

Prerequisites: BIOL 2012 and CHEM 2612. A study of the principles of molecular biology, with emphasis on understanding the genetic regulation of DNA, RNA, and protein synthesis and function in eukaryotic cells. Three hours of lecture per week. Students may not receive credit for BIOL 4602 and either BIOL 6602, or any course previously called Gene Expression in Eukaryotes or Advanced Gene Expression in Eukaryotes.

**BIOL 4612 Molecular Genetics Of Bacteria: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. A study of the molecular biology of gene replication, transfer, and expression in bacterial cells. Topics include DNA replication, transcription and translation, mutagenesis, DNA repair and recombination, gene transfer, and the regulation of genes and global expression systems. Three hours of lecture per week. Student may not receive credit for BIOL 4612 and either BIOL 6612 or any course previously called Gene Expression in Prokaryotes or Advanced Gene Expression in Prokaryotes.

**BIOL 4614 Biotechnology Laboratory I: 4 semester hours**

Prerequisites: BIOL 2012 or consent of instructor. An introduction to the fundamental concepts that underlie the field of biotechnology. Both the basic principles of molecular biology and hand-on experience with the techniques of the field will be addressed through lectures, discussions, and a series of laboratory exercises. Two hours of lecture and four hours of laboratory per week. Fulfills a laboratory requirement only; may not be used to fulfill the higher level (4000-5000) lecture course requirement for the B.A. or B.S. degree in biology. Students may not receive credit for BIOL 4614 and a comparable biotechnology course from another institution.

**BIOL 4615 Biotechnology Laboratory II: 4 semester hours**

Prerequisites: BIOL 4614 and either BIOL 4602 or BIOL 4612, or consent of instructor. An in-depth look at theory and practice of biotechnology. Lectures and discussion will examine the underlying principles, and laboratory exercises will present hands-on experience with current techniques. One hour of lecture and six hours of laboratory per week. Fulfills a laboratory requirement only; may not be used to fulfill the higher level (4000-5000) lecture course requirement for the B.A. or B.S. degree in biology. Students may not receive credit for BIOL 4615 and BIOL 6615.

**BIOL 4622 Cellular Basis of Disease: 3 semester hours**

Prerequisites: BIOL 3622. A study of the structural organization and processes of eukaryotic cells, focusing on how defects in cellular function lead to genetic diseases and cancer. Topics of discussion may include membrane dynamics, intracellular trafficking, signal transduction, and the cell cycle. Three hours of lecture per week. Students may not receive credit for both BIOL 4622 and BIOL 6622.

**BIOL 4632 Nucleic Acid Structure And Function: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 4712 or equivalent, or consent of instructor. A comprehensive view of the structural properties of DNA and RNA that promote molecular interactions and biological function. Topics will include the physical properties of nucleic acids, the formation and biological importance of higher order structures, RNA enzymatic activities, nucleic acid-protein interactions, and RNA metabolism. Three hours of lecture per week. Students may not receive credit for both BIOL 4632 and BIOL 6632.

**BIOL 4642 Plant Molecular Biology and Genetic Engineering: 3 semester hours**

Prerequisites: BIOL 4602 or BIOL 4612. Topics may include molecular and cellular aspects of plant growth, development, and responses to environmental stress and pathogen attack, using the experimental approaches of genetics, molecular biology, and biochemistry. Plant growth manipulation and genetic engineering, including techniques required for DNA transfer and plant regeneration, as well as current and potential future applications, such as engineered resistance to stress, developmental engineering, and metabolic engineering, also will be covered. Three hours of lecture per week. Student may not receive credit for both BIOL 4642 and BIOL 6642.

**BIOL 4652 Virology: 3 semester hours**

Prerequisite: BIOL 2012 and BIOL 3622. This first half of the course entails a comparative study of the structure, replication, and molecular biology of viruses. The second half of the course focuses on the pathogenesis, control, and evolution of animal viruses. Three hours of lecture per week. Students may not receive credit for both BIOL 4652 and BIOL 6652.

**BIOL 4662 Human Pathology: 3 semester hours**

Prerequisites: BIOL 3622 or consent of the instructor. A study of disease processes as they affect the human body. The course will examine both the proximate causes and underlying mechanisms of disease. Specific conditions will be used to illustrate application of clinical approaches in determining the origin, development, and effects of a disease.

**BIOL 4712 Biochemistry: 3 semester hours**

Prerequisites: CHEM 2612 and either BIOL 1831 or CHEM 2622. (Same as CHEM 4712) Examines the chemistry and function of cell constituents, and the interaction and conversions of intracellular substances. Students may not receive credit for both BIOL 4712 and CHEM 4712.

**BIOL 4713 Techniques In Biochemistry: 2 semester hours**

Prerequisites: BIOL 4712 or CHEM 4712 (may be taken concurrently). Laboratory activities introducing fundamental qualitative and quantitative biochemical techniques. Student evaluation will be based on laboratory participation, student laboratory reports, and written examinations. Three and one-half hours of organized laboratory time per week. Students may need to return to the laboratory at unscheduled times to complete some experiments.

**BIOL 4797 Biochemistry and Biotechnology Seminar: 1 semester hour**

Prerequisites: Same as CHEM 4797. Senior standing in the Biochemistry and Biotechnology program. This course will focus on selected publications related to biochemistry and biotechnology from both refereed journals and news sources. Students are expected to participate in discussions and to prepare oral and written presentations. Completion of the Major Field Achievement Test in Biochemistry & Biotechnology is a course requirement. May not be taken for graduate credit.

**BIOL 4822 Introduction To Neuroscience: 3 semester hours**

Prerequisite: BIOL 3802 or consent of instructor. The study of nervous systems, featuring the cellular bases of initiation and conduction of the impulse, synaptic transmission, and the network integrative function of invertebrate and vertebrate nervous systems. This course emphasizes the multidisciplinary nature of the neurosciences, including anatomical, physiological and molecular approaches to understanding neural function. Three hours of lecture per week.

**BIOL 4842 Immunobiology: 3 semester hours**

Prerequisite: BIOL 3622 and CHEM 2612. The fundamental principles and concepts of immunology and immunochemistry. Emphasis on the relation of immunological phenomena to biological phenomena and biological problems. Three hours lecture per week.

**BIOL 4889 Senior Seminar: 2 semester hours**

Prerequisites: BIOL 1821, BIOL 1831, BIOL 2012, and BIOL 3302, with a total of at least 30 credits in Biology. Oral and written presentation by students of selected scientific papers or articles. Students are expected to participate in discussions of oral presentations by other students. May not be taken for graduate credit.

**BIOL 4905 Research: 1-3 semester hours**

Prerequisites: Consent of faculty research advisor. Research in an area selected by the student in consultation with and under the direct supervision of an UMSL biology faculty research adviser. Research opportunities are subject to availability and must be approved in advance of beginning research. The project may include the reading of pertinent literature, laboratory or field experience, including keeping of a logbook, and a summary paper and a presentation, all based on an average 8 hours per week per credit during a 15 week semester at the discretion of the instructor. Credit arranged. Course may be repeated for a total of up to 5 credit hours. A maximum of one lab requirement may be satisfied using any two BIOL 4905 credits. Additional credits may be applied toward the total biology hours required for the biology BA or BS. May not be taken for graduate credit.

**BIOL 4915 Biology Internship: 1-3 semester hours**

Prerequisites: Consent of faculty research advisor; generally restricted to junior and senior standing. Research in an area selected by the student to be conducted off-campus in a lab of a professional researcher or faculty person (the internship mentor) other than those in UMSL Biology. Research opportunities are subject to availability and must be approved in advance of beginning research by an UMSL biology faculty liaison and the internship mentor. The project normally includes the reading of pertinent literature, laboratory or field experience, including keeping of a logbook, and a summary paper and a presentation, all based on an average 8 hours per week per credit during a 15 week semester. Credit arranged. This course and Biol 4905 may be repeated in any combination for a total of up to 5 credit hours. A maximum of one lab requirement may be satisfied using any two BIOL 4905 and/or BIOL 4915 credits. Additional credits may be applied toward the total biology hours required for the biology BA or BS.



**BIOL 4920 Selected Topics: 1-10 semester hours**

Prerequisite: Junior standing and consent of instructor. Selected topics in biology. The topics will vary each semester. Topics offered for the following semester will be available in the departmental office. Credit arranged. May be taken more than once for credit.

**BIOL 4986 Laboratory In Teaching Life Sciences: 2 semester hours**

Same as SEC ED 4986. Prerequisite: TCH ED 3310. Discussion, development, utilization, and evaluation of equipment, materials, and techniques applicable to instruction in the life sciences. Must be taken concurrently with BIOL 4985/ SEC ED 4985.

**BIOL 5059 Topics In Ecology, Evolution, And Systematics: 1 semester hour**

Prerequisites: Graduate Standing. Presentation and discussion of faculty and student current research projects in behavior, ecology, evolution, and systematics. May be repeated.

**BIOL 5069 Topics In Cellular And Molecular Biology: 1 semester hour**

Presentation and discussion of student and faculty research projects and/or current research articles in molecular, cellular and developmental biology. May be repeated.

**BIOL 5079 Topics In Floristic Taxonomy: 1 semester hour**

Prerequisite: BIOL 2501 or equivalent, and graduate standing. Seminar course in systematics of higher plants, arranged in the Cronquist sequence of families, covering morphology, anatomy, palynology, biogeography, chemosystematics, cytology, and other aspects of plant classification and phylogenetics. Given at the Missouri Botanical Garden. One hour per week.

**BIOL 5089 Topics In Animal Behavior: 1 semester hour**

Prerequisites: Graduate standing. Presentation and discussion of current research articles and/or student and faculty research projects in animal behavior, including ecology, evolution, genetics, and mechanisms of behavior. May be repeated.

**BIOL 5123 Advanced Tropical Resource Ecology Field Studies: 2 semester hours**

Prerequisites: BIOL 5122 (may be taken concurrently). The field component to the lecture and seminar course. Examines the patterns of use and exploitation of resources in the tropics by humans in the context of the theories of behavioral ecology. Two weeks of intensive field research and lectures in Guyana, South America during the second and third weeks of Summer Session I (trip costs to be borne by the student). Students may not receive credit for both BIOL 3123 and BIOL 5123. Offered in odd numbered years.

**BIOL 5179 Ethical Issues in Biology: 1 semester hour**

Prerequisites: Graduate Standing. Using readings and discussions, students will explore ethical issues in Biology in both professional and social realms. Professional topics include authorship, grants accounting, and academic misconduct; social topics include ethical foundations of basic and applied science, government regulation of science, environmental and individual protection, and current issues.

**BIOL 5192 Community Ecology: 3 semester hours**

Prerequisites: Graduate standing and either BIOL 2102 and BIOL 4182 or an equivalent course. Studies of structure and organization of natural communities stressing the abundance and distribution of species, the regulation of species diversity, and the evolution of demographic parameters in populations.

**BIOL 5312 Theory Of Systematics: 3 semester hours**

Prerequisites: BIOL 1821, BIOL 1831 and at least one course beyond the introductory level dealing with animal, plant, or microbial diversity (such as BIOL 2482, BIOL 2501, BIOL 2402, BIOL 4482, BIOL 4501, BIOL 4402, BIOL 4422) or consent of instructor. Course investigates the theory of classification, phylogenetic analysis, systematic biology, and their relation to systematic practice. Will cover goals and schools of systematics, characters and homology, analysis of molecular and morphological data and underlying assumptions, species concepts, classification, naming, and the connections between evolutionary biology and systematics. The course is appropriate for upper level undergraduates & graduate students in all disciplines, animal, plant, and microbial, as an introduction to systematic methods. Three hours of lecture per week.

**BIOL 5314 Herbarium Taxonomy: 2 semester hours**

Prerequisite: BIOL 5312. An introduction to the principles and practice of herbarium taxonomy, emphasizing species description, identification, how to access and use the taxonomic literature, data basing, nomenclature, curation, and collecting and the national and international regulations governing it. Two hours of lectures per week, projects including specimen curation, writing species description, etc., to be arranged. Offered every even year.

**BIOL 5436 Applied Bioinformatics: 3 semester hours**

Prerequisites: BIOL 4712 or BIOL 4602 or consent of instructor. This course provides a survey of the various computational approaches that can be used to solve biological problems. Specific attention will be focused on biological databases and methods for using and interpreting database information, sequence alignments, functional genomics, structure prediction, high-throughput analyses, and proteomics. Three hours of lecture per week.

**BIOL 5798 Practicum in Science in Business: 1-2 semester hours**

Same As CHEM 5798. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis in Chemistry, Biochemistry & Biotechnology, or Biology. Students will integrate and apply their scientific expertise to a practical, business-related problem. The course will emphasize interdisciplinary team-work as well as both written and oral communication skills.

**BIOL 5799 Internship in Science in Business: 1-2 semester hours**

Same As CHEM 5799. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis area in Chemistry, Biochemistry & Biotechnology, or Biology. The internship will consist of period of on-the-job training at a local company. Credit hours will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the course instructor. Internship assignments will be commensurate with the education and experience of the student, with an emphasis on work at the interface between the scientific and business components of the company. A written report describing the internship project is required.

**BIOL 6102 Advanced Topics In Behavioral Ecology: 3 semester hours**

Prerequisite: BIOL 3102 (BIOL 2102 is recommended). Topics in animal behavior with an emphasis on ecological and evolutionary aspects of behavior. Topics may include the role of behavior in population regulation, habitat selection and spacing, feeding and predator-prey interactions, sexual selection, evolution of mating systems, and new approaches to animal communication. Three hours of lecture, one hour of discussion or seminar per week. Students may not receive credit for both BIOL 4102 and BIOL 6102.



**BIOL 6112 Advanced Evolution Of Animal Sociality: 3 semester hours**

Prerequisites: BIOL 2102 or BIOL 4182 recommended or consent of instructor. The evolution of sociality, including a critical examination of sociobiological theories and alternative approaches of social evolution. Survey of social organization and behavior in arthropods, with an emphasis on social insects, & vertebrates. Two hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4112 and BIOL 6112.

**BIOL 6182 Advanced Population Biology: 3 semester hours**

Prerequisites: BIOL 2012 (BIOL 3302 recommended). Introduces concepts and mathematical models of population ecology and population genetics. By integrating the ecology and genetics of population, the course goal is to understand the processes that contribute to microevolution of populations. Topics include: demography, metapopulation biology, natural selection, migration, gene flow, and genetic drift. A discussion section will focus on mathematical elements of population biology models. Three hours of discussion per week. Students may not receive credit for both BIOL 4182 and BIOL 6182.

**BIOL 6192 Applications Of Geographic Information Systems: 5 semester hours**

Prerequisites: BIOL 2102, BIOL 4122 or equivalent, and consent of instructor. Geographic Information Systems (GIS) are sophisticated computer-based systems for analysis, capture, presentation, and maintenance of geographically referenced data. This course provides a foundation in using GIS for spatial analysis. Although biological examples are primarily used, examples from a range of disciplines are employed to emphasize the use of GIS as a tool to support analysis and decision-making. Students will have hands-on use of GIS software using Windows 2000/NT based workstations during each session. An independent research project applying the spatial analysis tools learned in GIS to biological research will be required. Five hours of combined lecture and computer operations, plus 2-3 hours of open lab per week.

**BIOL 6212 Theory And Application Of Conservation Biology: 3 semester hours**

Prerequisite: BIOL 4182 or BIOL 5162 or equivalent or consent of instructor. Prerequisites may be taken concurrently. Advanced analysis of conservation theory with emphasis on conservation of populations, their genetic diversity, and the biodiversity of habitats. Applied aspects of conservation and sustainable development will be illustrated through case studies presented by conservation professionals.

**BIOL 6222 Advanced Tropical Ecology And Conservation: 3 semester hours**

Prerequisite: BIOL 2102, BIOL 4182, or BIOL 5192, or their equivalent. This course will cover research areas in tropical population, community and ecosystem ecology, with emphasis on inter-species and environment-organism interactions, population control factors, and genetic structure of populations. Topics include the current status and causes of tropical habitat destruction, ongoing attempts to manage those habitats, and development of strategies leading to sustained use of non-renewable resources. A research proposal designed to investigate a current topic in tropical ecology will be required. Students may not receive credit for BIOL 4222 and BIOL 6222. Three hours of lecture per week.

**BIOL 6250 Public Policy Of Conservation And Sustainable Development: 3 semester hours**

Prerequisite: Same as POL SCI 6452. Graduate standing in Biology or Political Science and consent of instructor. Prior course in ecology recommended. This course will introduce the student to concepts and techniques for formulating, implementing, and analyzing public policy with an emphasis on environmental concerns, conservation, and sustainable development. The course will be team taught by a political scientist and a biologist. Course materials will include case studies that demonstrate the special problems of environmental policymaking in developing and developed economies.

**BIOL 6270 Advanced Global Climate Change: 3 semester hours**

Prerequisites: Graduate Standing or permission of the instructor. We will cover the fundamental physical, meteorological, and biological circumstances of global climate change, as well as predictions of its future effects on biological diversity, including humans, and how those estimates are made. We will also cover basic environmental economics and politics of climate change at local and global levels. The course will be taught as a series of lectures and discussions led by guest experts in each of the subdisciplines covered. Students may not receive credit for both BIOL 4270 and BIOL 6270.

**BIOL 6299 Internship In Conservation Biology: 1-4 semester hours**

Prerequisite: BIOL 6250 or BIOL 6212 and consent of the director of graduate studies in biology. Internships will consist of a period of study, observation and on-the-job training at a conservation or environmental agency. Specific placements will be selected according to student's interests and career goals. Internships may vary from 2 weeks to 4 months in duration.

**BIOL 6442 Advanced Developmental Biology: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 3622. A study of the basic principles that shape the embryonic and post-embryonic development of animals with an emphasis on the underlying cellular and molecular mechanisms. Specific topics include fertilization, determination of cell fate and differentiation, cell migration, establishment of the body plan, formation of selected organs and organ systems, stem cells, and limb regeneration. Environmental influences on development and the impact of developmental biology on modern medicine are also discussed. Three hours of lecture/discussion per week. Students may not receive credit for both BIOL 4442 and BIOL 6442.

**BIOL 6502 Advanced Evolution of Cognition: 3 semester hours**

Prerequisites: BIOL 3102 and BIOL 3302, or consent of instructor. PSYCH 2211 strongly recommended. The evolutionary ecology of animal cognitive abilities. Topics include learning, memory, perception, navigation, and communication from an evolutionary perspective. The focus is on cognitive abilities as adaptations, which have evolved to solve specific environmental problems. Topics include empirical methods for assessing cognitive ability, experimental design, theoretical approaches for generating predictions, and the parsimonious interpretation of data. Two hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4502 and BIOL 6502.

**BIOL 6550 Advanced Bacterial Pathogenesis: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. Examination of the strategies bacterial pathogens use to infect animals. Topics include host immune responses to infection, bacterial virulence factors, regulation of bacterial virulence, and the cellular and molecular approaches used to study host-parasite interactions. Students may not receive credit for both BIOL 6550 and BIOL 4550. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Three hours of lecture per week.

**BIOL 6552 Advanced Evolution And Phylogeny Of Seed Plants: 5 semester hours**

Prerequisites: BIOL 3302 or BIOL 2501, or equivalent. Advanced approaches in examination of the evolution of, and relationships among, major lines of seed-bearing plants, both extinct (Bennettitales, cordaites, etc.) and extant (conifers, cycades, ginkgo, Gnetales, and flowering plants). Criteria for the assessment of morphological homology are examined, and wherever possible the evolution of morphological structures is related to their function. Includes use of cladistic methods and practical exercises in the analysis of large morphological data matrices using PAUP and MacClade. Two hours of lecture per week and one hour of laboratory per week to be arranged. Does not fulfill a laboratory requirement for biology majors. students may not receive credit for both BIOL 4552 and BIOL 6552.

**BIOL 6602 Advanced Molecular Biology: 3 semester hours**

Prerequisites: BIOL 2012 and CHEM 2612, or consent of instructor. A study of the principles of molecular biology, with emphasis on understanding the genetic regulation of DNA, RNA, and protein synthesis and function in eukaryotic cells. Three hours of lecture per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Students may not receive credit for both BIOL 6602 and BIOL 4602, or any course previously called Gene Expression in Eukaryotes or Advanced Gene Expression in Eukaryotes.

**BIOL 6612 Advanced Molecular Genetics Of Bacteria: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. A study of the molecular biology of gene replication, transfer, and expression in bacterial cells. Topics include DNA replication, transcription and translation, mutagenesis, DNA repair and recombination, gene transfer, and the regulation of genes and global expression systems. Three hours of lecture per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Student may not receive credit for both BIOL 6612 and BIOL 4612 or any course previously called Gene Expression in Prokaryotes or Advanced Gene Expression in Prokaryotes.

**BIOL 6615 Advanced Biotechnology Laboratory II: 4 semester hours**

Prerequisites: BIOL 4614 and either BIOL 4602 or BIOL 4612, or consent of instructor. An in-depth look at the theory and practice of biotechnology. Lectures and discussion will examine the underlying principles, and laboratory exercises will present hands-on experience with current techniques. One hour of lecture and six hours of laboratory per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Students may not receive credit for both BIOL 6615 and BIOL 4615 or any course previously called Techniques in Molecular Biology or Advanced Techniques in Molecular Biology.

**BIOL 6622 Advanced Cellular Basis of Disease: 3 semester hours**

Prerequisites: BIOL 3622, or consent of instructor. A study of the structural organization and processes of eukaryotic cells, focusing on how defects in cellular function lead to genetic diseases and cancer. Topics of discussion may include membrane dynamics, intracellular trafficking, signal transduction, and the cell cycle. Three hours of lecture per week. Students may not receive credit for both BIOL 6622 and BIOL 4622.

**BIOL 6632 Advanced Nucleic Acid Structure And Function: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 4712 or equivalent, or consent of instructor. A comprehensive view of the structural properties of DNA and RNA that promote molecular interactions & biological function. Topics will include the physical properties of nucleic acids, the formation and biological importance of higher order structures, RNA enzymatic activities, nucleic acid-protein interactions, and RNA metabolism. Three hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4632 and BIOL 6632.

**BIOL 6642 Advanced Plant Biology And Biotechnology: 3 semester hours**

Prerequisites: BIOL 4602 or BIOL 4612. Topics may include molecular and cellular aspects of plant growth, development, and responses to environmental stress and pathogen attack, using the experimental approaches of genetics, molecular biology, and biochemistry. Plant growth manipulation and genetic engineering, including the techniques required for DNA transfer and plant regeneration, as well as current and potential future applications, such as engineered resistance to stress, developmental engineering, and metabolic engineering, also will be covered. Student may not receive credit for both BIOL 4642 and BIOL 6642.

**BIOL 6652 Advanced Virology: 3 semester hours**

Prerequisites: BIOL 2012, BIOL 3622, and graduate standing. This first half of the course entails a comparative study of the structure, replication, and molecular biology of viruses. The second half of the course focuses on the pathogenesis, control, and evolution of animal viruses. Three hours of lecture, one hour of discussion or seminar per week. Students may not receive credit for both BIOL 4652 and BIOL 6652.

**BIOL 6699 Graduate Internship In Biotechnology: 1-4 semester hours**

Prerequisites: Graduate standing and enrollment in graduate Biotechnology Certificate Program. 6 credit hours maximum (maximum of 8 combined credit hours of BIOL 6905 and internship) Internship will consist of period of observation, experimentation and on-the-job training in biotechnology laboratory. The laboratory may be industrial or academic. Credit will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the instructor. Internship assignments will be commensurate with the education and experience of the student.

**BIOL 6889 Graduate Seminar: 2 semester hours**

Presentation and discussion of various research problems in biology. Graduate student exposure to the seminar process.

**BIOL 6905 Graduate Research In Biology: 1-10 semester hours**

Research in area selected by student in consultation with faculty members.

**BIOL 6915 Graduate Research Practicum: 1-2 semester hours**

Prerequisite: Consent of instructor. This course is designed for graduate students wishing to pursue research experience in an area outside their dissertation topic. The project can be techniques-oriented or focused on a specific research question. The credit hours will depend on the time commitment to the project as decided by the supervisory faculty member.

## Courses

### **BIOL 1010 Introduction to Student Biological Research: 1-2 semester hours**

Prerequisites: Permission of Instructor. An opportunity for high school students to develop individual research projects under faculty mentorship. Includes interdisciplinary lectures, demonstrations, seminars, and project guidance. Evaluation will be based on written and oral presentation of the research project and student portfolio.

### **BIOL 1012 General Biology: 3 semester hours**

Emphasis on fundamental principles of biology. BIOL 1012 can be applied toward fulfillment of the general education requirement in science. BIOL 1012 does not satisfy the prerequisite requirements in other courses in biology at the 2000 level or above. Students who plan to pursue a career in medicine or one of the medical-oriented professions should enroll in BIOL 1831 rather than BIOL 1012.

### **BIOL 1013 General Biology Laboratory: 2 semester hours**

Prerequisite: BIOL 1012 (may be taken concurrently). Laboratory course to accompany BIOL 1012. BIOL 1013 can be used to fulfill the general education requirements in a laboratory science. BIOL 1013 does not meet the prerequisite requirements for other courses in biology. Three and one-half hours of laboratory per week.

### **BIOL 1102 Human Biology: 3 semester hours**

Lectures and readings concerned with the reproduction, development, genetics, functional anatomy, behavior, ecology, and evolution of the human species. Three hours lecture per week. Fulfills Science/Math requirement.

### **BIOL 1131 Human Physiology And Anatomy I: 4 semester hours**

Prerequisite: BIOL 1012 or its equivalent. The basic aspects of the structure of the healthy human body and how it functions. Special emphasis is on how the human body adapts itself to its environment and how changes affect physiological activities. Three hours lecture and two hours laboratory per week.

### **BIOL 1141 Human Physiology And Anatomy II: 4 semester hours**

Prerequisite: BIOL 1131. A continuation of BIOL 1131. A study of the basic aspects of human physiology and anatomy. Three hours lecture and two hours laboratory per week.

### **BIOL 1162 General Microbiology: 3 semester hours**

Prerequisite: BIOL 1012 or its equivalent. A survey of microbiology structure, genetics, and physiology. Special emphasis will be placed on the transmission and control of such organisms as it relates to the maintenance of human health. Three hours of lecture per week.

### **BIOL 1202 Environmental Biology: 3 semester hours**

An examination of the biological basis of current environmental problems, with emphasis upon resources, energy, pollution and conservation. Three hours lecture per week. Fulfills Science/Math requirement.

### **BIOL 1821 Introductory Biology: Organisms And The Environment: 5 semester hours**

Prerequisites: A minimum of high school chemistry, ENGL 1100 or equivalent (may be taken concurrently), and placement into college algebra or higher. Required for students intending to major in biology or take specified biology courses at the 2000 level or above. This course presents an introduction to some of the principles of biology and scientific methodology applied to the organism and supraorganism levels of biology. Topics to be covered include: ecology, evolution, diversity, and population biology. Three hours of lecture and one hour of discussion per week.

### **BIOL 1831 Introductory Biology: From Molecules To Organisms: 5 semester hours**

Prerequisites: A minimum of high school chemistry and MATH 1030; ENGL 1100 or equivalent (may be taken concurrently). Required for students intending to major in biology or take specified biology courses at the 2000 level or above. This course presents and introduction to some of the principles of biology and scientific methodology applied to the molecular/ cellular through organ system levels of organization. Topics include: cell structure, metabolism, reproduction, heredity and major physiological processes regulated by organ systems. Three hours of lecture, three and one half hours of lab, and one hour of discussion per week.

### **BIOL 1999 Evolution for Everyone: 3 semester hours**

Evolution for Everyone explores the development of our current understanding by examining modern and ancient controversies, and by studying major processes by which change occurs. Lectures will present overviews and many examples on topics in history, mechanisms, and outcome of evolutionary change, and students will participate in classroom and online discussions based on readings, computer exercises, and data collection and analysis. Course may not be applied towards major in Biology. Not eligible for credit with BIOL 3302 (Introduction to Evolution) required for Biology majors.

### **BIOL 2012 Genetics: 3 semester hours**

Prerequisites: BIOL 1831 (majors must also take BIOL 1821) MATH 1030, and CHEM 1111 or (CHEM 1081 plus CHEM 1091). Fundamental principles of inheritance, including classical genetic theory as well as recent advances in the molecular basis of heredity. Three hours of lecture per week. Fulfills Science/Math requirement.

### **BIOL 2013 Genetics Laboratory: 2 semester hours**

Prerequisites: Concurrent registration in BIOL 2012, or by permission of instructor. Laboratory to accompany BIOL 2012. Three and one-half hours of organized laboratory time per week. Students may need to return to the laboratory at unscheduled times to complete some exercises.

### **BIOL 2102 General Ecology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. An examination of the relationships between living organisms and their environment. Three hours lecture per week. Fulfills Science/Math requirement.

### **BIOL 2103 General Ecology Laboratory: 2 semester hours**

Prerequisites: BIOL 2102 required (may be taken concurrently); a general statistics course strongly recommended. An analysis of environmental factors influencing the abundance and distribution of living organisms. Some classes will be held at field sites in and around St. Louis. Three and one-half hours of laboratory or field work per week.

### **BIOL 2402 Vertebrate Anatomy, Evolution and Ecology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. Development, structure, function, interrelationships, and zoogeography of vertebrate animals with particular attention to phylogenetic aspects. Three hours of lecture per week. Fulfills Science/Math requirement.

### **BIOL 2403 Vertebrate Anatomy, Evolution and Ecology Laboratory: 2 semester hours**

Prerequisite: BIOL 2402 (may be taken concurrently). Laboratory to accompany BIOL 2402. Morphological analysis and systematic survey of major vertebrate groups. Overview of the vertebrate life forms and their adaptations to habitats and resources. Three and one-half hours of laboratory per week.

**BIOL 2482 Microbiology: 3 semester hours**

Prerequisites: BIOL 1831 (majors must also take BIOL 1821), MATH 1030, and CHEM 1111. Study of microorganisms, their metabolism, genetics, and their interaction with other forms of life. Three hours of lecture per week.

**BIOL 2483 Microbiology Laboratory: 2 semester hours**

Prerequisite: BIOL 2482 (may be taken concurrently). Experimental studies and procedures of microbiological techniques. Three and one-half hours of organized laboratory time per week. Students will need to return to the laboratory at unscheduled times to complete some exercises.

**BIOL 2501 Biology Of Plants: 5 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. A general discussion of the plant groups from algae through angiosperms. Plant morphology, physiology, reproduction and ecology will be discussed in lecture (three hours per week). The laboratory (three and one half hours per week) involves examination of representatives of the plant kingdom and experimentation in plant physiology and genetics. Fulfills both a lecture and laboratory requirement.

**BIOL 3001 Experiential Practicum in Biosciences: 1 semester hour**

Prerequisites: Consent of Biology Curriculum Committee. Credit for off-campus bioscience projects providing extraordinary student experience and service to a community in need.

**BIOL 3102 Animal Behavior: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. The study of invertebrate and vertebrate behavior, including neurophysiological, hormonal, developmental, genetic, ecological and evolutionary aspects of behavior; behavior interactions within and between populations. Three hours of lecture per week.

**BIOL 3103 Animal Behavior Laboratory: 2 semester hours**

Prerequisites: BIOL 3102 (may be taken concurrently). Observational and experimental studies of animal behavior in the field and laboratory. Three and one-half hours of formal laboratory time per week, but additional time may be required for independent projects. Some activities involve field trips or trips to the St. Louis Zoo.

**BIOL 3123 Tropical Resource Ecology Field Studies: 2 semester hours**

Prerequisites: BIOL 3122 (may be taken concurrently). The field component to the lecture and seminar course. Examines the patterns of use and exploitation of resources in the tropics by humans in the context of the theories of behavioral ecology. Two weeks of intensive field research and lectures in Guyana, South America during the second and third weeks of Summer Session I (trip costs to be borne by the student). Students may not receive credit for both BIOL 3123 and BIOL 5123. Offered in odd numbered years.

**BIOL 3202 Conservation Biology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. Introduction to the principles and theories of conservation biology. Course topics include biodiversity, extinctions, population modeling, habitat fragmentation, conservation area management, restoration ecology, and social science elements of conservation strategies. Class sessions will include lectures, discussions, and simulation exercises. Three hours of lecture per week.

**BIOL 3203 Conservation Biology Laboratory: 2 semester hours**

Prerequisite: BIOL 3202 (recommended to be taken concurrently). Laboratory to accompany BIOL 3202. Laboratory will include computer simulations of conservation problems using existing software, 2-3 field trips to local conservation projects, and field interviews with governmental and nongovernmental agencies. Three and one-half hours of laboratory per week.

**BIOL 3302 Introduction To Evolution: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831, and MATH 1030; BIOL 2012 strongly recommended. Introduction to the theory, events, and processes of organic evolution.

**BIOL 3622 Cell Biology: 3 semester hours**

Prerequisites: BIOL 1831, BIOL 2012, CHEM 2612, and MATH 1030. Examination of the organization and basic processes of cells including tissues, organelles, glycolysis, respiration, photosynthesis, trafficking, cytoskeleton, signal transduction, and cell division.

**BIOL 3699 Undergraduate Internship In Biotechnology: 1-4 semester hours**

Prerequisites: BIOL 1821, BIOL 1831, and CHEM 1111 and CHEM 1121 and consent of instructor. Concurrent enrollment in CHEM 2612 or higher is strongly encouraged. A 2.5 GPA and enrollment in the undergraduate Biotechnology Certificate Program is required. Internship will consist of a period of observation, experimentation and on-the-job training in a biotechnology laboratory. The laboratory may be industrial or academic. Credit will be determined by the number of hours a student works each week and in consultation between the intern's supervisor and instructor. Internship assignments will be commensurate with the education and experience of the student. Two credits may be used to fulfill the lab requirement.

**BIOL 3802 Vertebrate Physiology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831 and CHEM 1111 or CHEM 1081 plus CHEM 1091). Basic functional aspects of organ systems in relation to the physiochemical properties of protoplasm. Three hours lecture per week. Fulfills Science/Math requirement.

**BIOL 3803 Vertebrate Physiology Lab: 2 semester hours**

Prerequisite: BIOL 3802 (may be taken concurrently). Instrumental and experimental studies in physiology. Three and one-half hours laboratory per week.

**BIOL 4102 Behavioral Ecology: 3 semester hours**

Prerequisite: BIOL 3102 (BIOL 2102 recommended). Topics in animal behavior with an emphasis on ecological and evolutionary aspects of behavior. Topics will include the role of behavior in population regulation, habitat selection and spacing, feeding and predator-prey interactions, sexual selection, evolution of mating systems, and new approaches to animal communication. Three hours of lecture per week. Students may not receive credit for both BIOL 4102 and BIOL 6102.

**BIOL 4112 Evolution Of Animal Sociality: 3 semester hours**

Prerequisites: BIOL 3102, BIOL 2102, or BIOL 4182 recommended, or consent of instructor. The evolution of sociality, including a critical examination of sociobiological theories and alternative approaches to social evolution. Survey of social organization and behavior in arthropods, with an emphasis on social insects, & vertebrates Two hours of lecture, one hour of discussion per week. Students may not receive credit for both BIOL 4112 and BIOL 6112.

**BIOL 4122 Biometry: 3 semester hours**

Prerequisites: MATH 1030 and a minimum of 15 hours in biology. Reviews descriptive, analytical, and experimental methods useful for the statistical study of biological phenomena. Students will develop the skills needed to better appreciate and evaluate the published literature, as well as the ability to design their own research programs. Topics include: the collection and summarization of biological observations; development, design, and testing of hypothesis; analysis and presentation of data. Three hours of lecture per week. Fulfills the statistics requirement for the B.A. or B.S. degree in biology.



**BIOL 4182 Population Biology: 3 semester hours**

Prerequisite: BIOL 2102 and BIOL 2012 (BIOL 3302 recommended)  
 Introduces concepts and mathematical models of population ecology and population genetics. By integrating the ecology and genetics of populations, the course goal is to understand the processes that contribute to microevolution of populations. Topics include: demography, metapopulation biology, natural selection, migration, gene flow, and genetic drift. Three hours of lecture per week. Students may not receive credit for both BIOL 4182 and BIOL 6182.

**BIOL 4192 Applications of Geographic Information Systems: 5 semester hours**

Prerequisites: BIOL 2102, BIOL 4122 or equivalent, and consent of instructor. Geographic Information Systems (GIS) are sophisticated computer-based systems for analysis, capture, presentation, and maintenance of geographically referenced data. This course provides a foundation in using GIS for spatial analysis. Although biological examples are primarily used, examples from a range of disciplines are employed to emphasize the use of GIS as a tool to support analysis and decision-making. Students will have hands-on use of GIS software during each session. An independent research project applying the spatial analysis tools learned in GIS to biological research will be required. Five hours of combined lecture and computer operations, plus 2-3 hours of open lab per week. Fulfills both a lecture and a laboratory requirement. Students may not receive credit for both BIOL 4192 and BIOL 6192.

**BIOL 4222 Tropical Ecology And Conservation: 3 semester hours**

Prerequisite: BIOL 2102, BIOL 4182, BIOL 5192, or equivalent. This Course Will Cover Research Areas In Tropical Population, Community And Ecosystem Ecology, With Emphasis On Inter-Species And Environment-Organism Interactions, Population Control Factors, And Genetic Structure Of Populations. Topics Include The Current Status And Causes Of Tropical Habitat Destruction, Ongoing Attempts To Manage Those Habitats, And Development Of Strategies Leading To Sustained Use Of Non-Renewable Resources. Three Hours Of Lecture Per Week. Students May Not Receive Credit For Both BIOL 4222 And BIOL 6222.

**BIOL 4245 Field Biology: 3 semester hours**

Prerequisite: Three biology courses and consent of instructor. Intensive study of the flora and fauna of selected natural areas of North America, including an extended field trip. Details of the field trip and course schedule will be posted in the Biology department preceding registration for the term in which the course will be offered. Students will be required to pay costs of travel and of the field trip. This is a laboratory course appropriate for advanced undergraduates and non-thesis Master of Science students. Students may not receive credit for both BIOL 4245 and BIOL 6245.

**BIOL 4270 Global Climate Change: 3 semester hours**

Prerequisites: BIOL 3302 or consent of instructor. Topics included are fundamental physical, meteorological, and biological circumstances of global climate change, as well as predictions of its future effects on biological diversity, including humans, and how those estimates are made. In addition, basic environmental economics and politics of climate change at local and global levels will be included. The course will be taught as a series of lectures and discussions led by guest experts in each of the subdisciplines covered. Students may not receive credit for both BIOL 4270 and BIOL 6270.

**BIOL 4299 Practicum In Conservation: 2 semester hours**

Prerequisites: Consent of instructor and BIOL 3643, Conservation Biology. This course is generally restricted to students officially enrolled in the Certificate Program in Conservation Biology. The course provides practical experience with conservation or environmental agencies. Specific placement will be selected according to student's interests and career goals as well as availability of agency openings. Course requirements include practical experience and final report on practicum experience.

**BIOL 4308 Transmission Electron Microscopy Hours: 3 semester hours**

Same as PHYSICS 4308 Course introduces students to transmission electron microscopy techniques and their applications to solving challenging materials and biological problems. Course includes fundamental principles (electron optics), electron-specimen interactions, diffraction of electrons, image formation and interpretation, image processing and analysis, energy dispersive X-ray spectroscopy, electron energy loss spectroscopy, and sample preparation of both biological and non-biological systems. Laboratory experiments will provide students "hands-on" experience with TEM operations and problem solving skills. Successful completion of the course enables students to independently operate transmission electron microscopes to perform basic research experiments. This course is ideal for students interested in ultrastructural or nanocharacterization of biological or materials systems. Two classroom hours and two hours of laboratory per week.

**BIOL 4402 Ornithology: 3 semester hours**

Prerequisites: BIOL 2102 and junior standing. Introduction to avian biology and ecology. Material to be covered will include basic adaptations of anatomy, physiology, and behavior of birds. There will be a strong emphasis on avian ecology and conservation. Specific topics will include flight, reproductive behavior, migration, foraging behavior, community structure, and current conservation concerns. The diversity of birds will be emphasized through comparisons between temperate and tropical regions. Three hours of lecture per week.

**BIOL 4403 Ornithology Laboratory: 2 semester hours**

Prerequisites: BIOL 4402 (may be taken concurrently), or consent of instructor. This course will introduce students to methods of identifying and studying birds. Labs will almost entirely be comprised of field trips to local areas and will emphasize diversity of birds, adaptations shown by different groups, and means of identification, particularly of birds found in Missouri. Field projects will focus on techniques for censusing birds, sampling foraging behavior, and studying habitat selection. Indoor periods will cover internal and external anatomy of birds. Slides and field trips to the St Louis Zoo will be used to survey the diversity of birds worldwide. Three and one-half hours of laboratory per week. Longer (e.g., Saturday) field trips will be made when appropriate.

**BIOL 4422 Entomology: 3 semester hours**

Prerequisites: BIOL 1821 and BIOL 1831. 9 additional hours of biology and upper-division standing. Development, structure, function, behavior and ecology of insects, including a systematic survey of the orders of Insecta. Three hours of lecture per week.

**BIOL 4423 Entomology Laboratory: 2 semester hours**

Prerequisites: BIOL 4442 (may be taken concurrently). Laboratory to accompany BIOL 4422. Studies of the morphology, physiology, and behavior of insects to give a sampling of biological studies of the class Insecta. Formation of a collection of insects, comprising a systematic survey of orders and principal families, will be an integral part of the course and will require additional time beyond the official lab hours. Three and one-half hours of lab per week.

**BIOL 4442 Developmental Biology: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 3622. A study of the basic principles that shape the embryonic and post-embryonic development of animals with an emphasis on the underlying cellular and molecular mechanisms. Specific topics include fertilization, determination of cell fate and differentiation, cell migration, establishment of the body plan, formation of selected organs and organ systems, stem cells, and limb regeneration. Environmental influences on development and the impact of developmental biology on modern medicine are also discussed. Three hours of lecture/discussion per week. Students may not receive credit for both BIOL 4442 and BIOL 6442.

**BIOL 4501 Flowering Plant Families: Phylogeny And Diversification: 5 semester hours**

Prerequisites: BIOL 1821, BIOL 1831 and junior standing or consent of instructor. Focusing on the flowering plant families of North America, the aim of the course is to give an understanding of their phylogeny and diversification. Student will also gain an understanding of plant morphology and anatomy, a basis for further developing their knowledge of plants. Three hours of lecture and three to four hours of laboratory per week. Students may need to return to the laboratory at unscheduled times.

**BIOL 4502 Evolution of Cognition: 3 semester hours**

Prerequisites: BIOL 3102 or Consent of Instructor; BIOL 3302 and PSYCH 2211 are strongly recommended. The evolutionary ecology of animal cognitive abilities. Topics include learning, memory, perception, navigation, and communication from an evolutionary perspective. The focus is on cognitive abilities as adaptations, which have evolved to solve specific environmental problems. Topics include empirical methods for assessing cognitive ability, experimental design, theoretical approaches for generating predictions, and the parsimonious interpretation of data. Two hours of lecture and one hour of discussion per week.

**BIOL 4550 Bacterial Pathogenesis: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482 Examination of the strategies bacterial pathogens use to infect animals. Topics include host immune responses to infection, bacterial virulence factors, regulation of bacterial virulence, and the cellular and molecular approaches used to study host/parasite interactions. Three hours of lecture per week. Students may not receive credit for both BIOL 4550 and BIOL 6550.

**BIOL 4602 Molecular Biology: 3 semester hours**

Prerequisites: BIOL 2012 and CHEM 2612. A study of the principles of molecular biology, with emphasis on understanding the genetic regulation of DNA, RNA, and protein synthesis and function in eukaryotic cells. Three hours of lecture per week. Students may not receive credit for BIOL 4602 and either BIOL 6602, or any course previously called Gene Expression in Eukaryotes or Advanced Gene Expression in Eukaryotes.

**BIOL 4612 Molecular Genetics Of Bacteria: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. A study of the molecular biology of gene replication, transfer, and expression in bacterial cells. Topics include DNA replication, transcription and translation, mutagenesis, DNA repair and recombination, gene transfer, and the regulation of genes and global expression systems. Three hours of lecture per week. Student may not receive credit for BIOL 4612 and either BIOL 6612 or any course previously called Gene Expression in Prokaryotes or Advanced Gene Expression in Prokaryotes.

**BIOL 4614 Biotechnology Laboratory I: 4 semester hours**

Prerequisites: BIOL 2012 or consent of instructor. An introduction to the fundamental concepts that underlie the field of biotechnology. Both the basic principles of molecular biology and hand-on experience with the techniques of the field will be addressed through lectures, discussions, and a series of laboratory exercises. Two hours of lecture and four hours of laboratory per week. Fulfills a laboratory requirement only; may not be used to fulfill the higher level (4000-5000) lecture course requirement for the B.A. or B.S. degree in biology. Students may not receive credit for BIOL 4614 and a comparable biotechnology course from another institution.

**BIOL 4615 Biotechnology Laboratory II: 4 semester hours**

Prerequisites: BIOL 4614 and either BIOL 4602 or BIOL 4612, or consent of instructor. An in-depth look at theory and practice of biotechnology. Lectures and discussion will examine the underlying principles, and laboratory exercises will present hands-on experience with current techniques. One hour of lecture and six hours of laboratory per week. Fulfills a laboratory requirement only; may not be used to fulfill the higher level (4000-5000) lecture course requirement for the B.A. or B.S. degree in biology. Students may not receive credit for BIOL 4615 and BIOL 6615.

**BIOL 4622 Cellular Basis of Disease: 3 semester hours**

Prerequisites: BIOL 3622. A study of the structural organization and processes of eukaryotic cells, focusing on how defects in cellular function lead to genetic diseases and cancer. Topics of discussion may include membrane dynamics, intracellular trafficking, signal transduction, and the cell cycle. Three hours of lecture per week. Students may not receive credit for both BIOL 4622 and BIOL 6622.

**BIOL 4632 Nucleic Acid Structure And Function: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 4712 or equivalent, or consent of instructor. A comprehensive view of the structural properties of DNA and RNA that promote molecular interactions and biological function. Topics will include the physical properties of nucleic acids, the formation and biological importance of higher order structures, RNA enzymatic activities, nucleic acid-protein interactions, and RNA metabolism. Three hours of lecture per week. Students may not receive credit for both BIOL 4632 and BIOL 6632.

**BIOL 4642 Plant Molecular Biology and Genetic Engineering: 3 semester hours**

Prerequisites: BIOL 4602 or BIOL 4612. Topics may include molecular and cellular aspects of plant growth, development, and responses to environmental stress and pathogen attack, using the experimental approaches of genetics, molecular biology, and biochemistry. Plant growth manipulation and genetic engineering, including techniques required for DNA transfer and plant regeneration, as well as current and potential future applications, such as engineered resistance to stress, developmental engineering, and metabolic engineering, also will be covered. Three hours of lecture per week. Student may not receive credit for both BIOL 4642 and BIOL 6642.

**BIOL 4652 Virology: 3 semester hours**

Prerequisite: BIOL 2012 and BIOL 3622. This first half of the course entails a comparative study of the structure, replication, and molecular biology of viruses. The second half of the course focuses on the pathogenesis, control, and evolution of animal viruses. Three hours of lecture per week. Students may not receive credit for both BIOL 4652 and BIOL 6652.

**BIOL 4662 Human Pathology: 3 semester hours**

Prerequisites: BIOL 3622 or consent of the instructor. A study of disease processes as they affect the human body. The course will examine both the proximate causes and underlying mechanisms of disease. Specific conditions will be used to illustrate application of clinical approaches in determining the origin, development, and effects of a disease.

**BIOL 4712 Biochemistry: 3 semester hours**

Prerequisites: CHEM 2612 and either BIOL 1831 or CHEM 2622. (Same as CHEM 4712) Examines the chemistry and function of cell constituents, and the interaction and conversions of intracellular substances. Students may not receive credit for both BIOL 4712 and CHEM 4712.

**BIOL 4713 Techniques In Biochemistry: 2 semester hours**

Prerequisites: BIOL 4712 or CHEM 4712 (may be taken concurrently). Laboratory activities introducing fundamental qualitative and quantitative biochemical techniques. Student evaluation will be based on laboratory participation, student laboratory reports, and written examinations. Three and one-half hours of organized laboratory time per week. Students may need to return to the laboratory at unscheduled times to complete some experiments.

**BIOL 4797 Biochemistry and Biotechnology Seminar: 1 semester hour**

Prerequisites: Same as CHEM 4797. Senior standing in the Biochemistry and Biotechnology program. This course will focus on selected publications related to biochemistry and biotechnology from both refereed journals and news sources. Students are expected to participate in discussions and to prepare oral and written presentations. Completion of the Major Field Achievement Test in Biochemistry & Biotechnology is a course requirement. May not be taken for graduate credit.

**BIOL 4822 Introduction To Neuroscience: 3 semester hours**

Prerequisite: BIOL 3802 or consent of instructor. The study of nervous systems, featuring the cellular bases of initiation and conduction to the impulse, synaptic transmission, and the network integrative function of invertebrate and vertebrate nervous systems. This course emphasizes the multidisciplinary nature of the neurosciences, including anatomical, physiological and molecular approaches to understanding neural function. Three hours of lecture per week.

**BIOL 4842 Immunobiology: 3 semester hours**

Prerequisite: BIOL 3622 and CHEM 2612. The fundamental principles and concepts of immunology and immunochemistry. Emphasis on the relation of immunological phenomena to biological phenomena and biological problems. Three hours lecture per week.

**BIOL 4889 Senior Seminar: 2 semester hours**

Prerequisites: BIOL 1821, BIOL 1831, BIOL 2012, and BIOL 3302, with a total of at least 30 credits in Biology. Oral and written presentation by students of selected scientific papers or articles. Students are expected to participate in discussions of oral presentations by other students. May not be taken for graduate credit.

**BIOL 4905 Research: 1-3 semester hours**

Prerequisites: Consent of faculty research advisor. Research in an area selected by the student in consultation with and under the direct supervision of an UMSL biology faculty research adviser. Research opportunities are subject to availability and must be approved in advance of beginning research. The project may include the reading of pertinent literature, laboratory or field experience, including keeping of a logbook, and a summary paper and a presentation, all based on an average 8 hours per week per credit during a 15 week semester at the discretion of the instructor. Credit arranged. Course may be repeated for a total of up to 5 credit hours. A maximum of one lab requirement may be satisfied using any two BIOL 4905 credits. Additional credits may be applied toward the total biology hours required for the biology BA or BS. May not be taken for graduate credit.

**BIOL 4915 Biology Internship: 1-3 semester hours**

Prerequisites: Consent of faculty research advisor; generally restricted to junior and senior standing. Research in an area selected by the student to be conducted off-campus in a lab of a professional researcher or faculty person (the internship mentor) other than those in UMSL Biology. Research opportunities are subject to availability and must be approved in advance of beginning research by an UMSL biology faculty liaison and the internship mentor. The project normally includes the reading of pertinent literature, laboratory or field experience, including keeping of a logbook, and a summary paper and a presentation, all based on an average 8 hours per week per credit during a 15 week semester. Credit arranged. This course and Biol 4905 may be repeated in any combination for a total of up to 5 credit hours. A maximum of one lab requirement may be satisfied using any two BIOL 4905 and/or BIOL 4915 credits. Additional credits may be applied toward the total biology hours required for the biology BA or BS.

**BIOL 4920 Selected Topics: 1-10 semester hours**

Prerequisite: Junior standing and consent of instructor. Selected topics in biology. The topics will vary each semester. Topics offered for the following semester will be available in the departmental office. Credit arranged. May be taken more than once for credit.

**BIOL 4986 Laboratory In Teaching Life Sciences: 2 semester hours**

Same as SEC ED 4986. Prerequisite: TCH ED 3310. Discussion, development, utilization, and evaluation of equipment, materials, and techniques applicable to instruction in the life sciences. Must be taken concurrently with BIOL 4985/ SEC ED 4985.

**BIOL 5059 Topics In Ecology, Evolution, And Systematics: 1 semester hour**

Prerequisites: Graduate Standing. Presentation and discussion of faculty and student current research projects in behavior, ecology, evolution, and systematics. May be repeated.

**BIOL 5069 Topics In Cellular And Molecular Biology: 1 semester hour**

Presentation and discussion of student and faculty research projects and/or current research articles in molecular, cellular and developmental biology. May be repeated.

**BIOL 5079 Topics In Floristic Taxonomy: 1 semester hour**

Prerequisite: BIOL 2501 or equivalent, and graduate standing. Seminar course in systematics of higher plants, arranged in the Cronquist sequence of families, covering morphology, anatomy, palynology, biogeography, chemosystematics, cytology, and other aspects of plant classification and phylogenetics. Given at the Missouri Botanical Garden. One hour per week.

**BIOL 5089 Topics In Animal Behavior: 1 semester hour**

Prerequisites: Graduate standing. Presentation and discussion of current research articles and/or student and faculty research projects in animal behavior, including ecology, evolution, genetics, and mechanisms of behavior. May be repeated.

**BIOL 5123 Advanced Tropical Resource Ecology Field Studies: 2 semester hours**

Prerequisites: BIOL 5122 (may be taken concurrently). The field component to the lecture and seminar course. Examines the patterns of use and exploitation of resources in the tropics by humans in the context of the theories of behavioral ecology. Two weeks of intensive field research and lectures in Guyana, South America during the second and third weeks of Summer Session I (trip costs to be borne by the student). Students may not receive credit for both BIOL 3123 and BIOL 5123. Offered in odd numbered years.

**BIOL 5179 Ethical Issues in Biology: 1 semester hour**

Prerequisites: Graduate Standing. Using readings and discussions, students will explore ethical issues in Biology in both professional and social realms. Professional topics include authorship, grants accounting, and academic misconduct; social topics include ethical foundations of basic and applied science, government regulation of science, environmental and individual protection, and current issues.

**BIOL 5192 Community Ecology: 3 semester hours**

Prerequisites: Graduate standing and either BIOL 2102 and BIOL 4182 or an equivalent course. Studies of structure and organization of natural communities stressing the abundance and distribution of species, the regulation of species diversity, and the evolution of demographic parameters in populations.

**BIOL 5312 Theory Of Systematics: 3 semester hours**

Prerequisites: BIOL 1821, BIOL 1831 and at least one course beyond the introductory level dealing with animal, plant, or microbial diversity (such as BIOL 2482, BIOL 2501, BIOL 2402, BIOL 4482, BIOL 4501, BIOL 4402, BIOL 4422) or consent of instructor. Course investigates the theory of classification, phylogenetic analysis, systematic biology, and their relation to systematic practice. Will cover goals and schools of systematics, characters and homology, analysis of molecular and morphological data and underlying assumptions, species concepts, classification, naming, and the connections between evolutionary biology and systematics. The course is appropriate for upper level undergraduates & graduate students in all disciplines, animal, plant, and microbial, as an introduction to systematic methods. Three hours of lecture per week.

**BIOL 5314 Herbarium Taxonomy: 2 semester hours**

Prerequisite: BIOL 5312. An introduction to the principles and practice of herbarium taxonomy, emphasizing species description, identification, how to access and use the taxonomic literature, data basing, nomenclature, curation, and collecting and the national and international regulations governing it. Two hours of lectures per week, projects including specimen curation, writing species description, etc., to be arranged. Offered every even year.

**BIOL 5436 Applied Bioinformatics: 3 semester hours**

Prerequisites: BIOL 4712 or BIOL 4602 or consent of instructor. This course provides a survey of the various computational approaches that can be used to solve biological problems. Specific attention will be focused on biological databases and methods for using and interpreting database information, sequence alignments, functional genomics, structure prediction, high-throughput analyses, and proteomics. Three hours of lecture per week.

**BIOL 5798 Practicum in Science in Business: 1-2 semester hours**

Same As CHEM 5798. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis in Chemistry, Biochemistry & Biotechnology, or Biology. Students will integrate and apply their scientific expertise to a practical, business-related problem. The course will emphasize interdisciplinary team-work as well as both written and oral communication skills.

**BIOL 5799 Internship in Science in Business: 1-2 semester hours**

Same As CHEM 5799. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis area in Chemistry, Biochemistry & Biotechnology, or Biology. The internship will consist of period of on-the-job training at a local company. Credit hours will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the course instructor. Internship assignments will be commensurate with the education and experience of the student, with an emphasis on work at the interface between the scientific and business components of the company. A written report describing the internship project is required.

**BIOL 6102 Advanced Topics In Behavioral Ecology: 3 semester hours**

Prerequisite: BIOL 3102 (BIOL 2102 is recommended). Topics in animal behavior with an emphasis on ecological and evolutionary aspects of behavior. Topics may include the role of behavior in population regulation, habitat selection and spacing, feeding and predator-prey interactions, sexual selection, evolution of mating systems, and new approaches to animal communication. Three hours of lecture, one hour of discussion or seminar per week. Students may not receive credit for both BIOL 4102 and BIOL 6102.

**BIOL 6112 Advanced Evolution Of Animal Sociality: 3 semester hours**

Prerequisites: BIOL 2102 or BIOL 4182 recommended or consent of instructor. The evolution of sociality, including a critical examination of sociobiological theories and alternative approaches of social evolution. Survey of social organization and behavior in arthropods, with an emphasis on social insects, & vertebrates. Two hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4112 and BIOL 6112.

**BIOL 6182 Advanced Population Biology: 3 semester hours**

Prerequisites: BIOL 2012 (BIOL 3302 recommended). Introduces concepts and mathematical models of population ecology and population genetics. By integrating the ecology and genetics of population, the course goal is to understand the processes that contribute to microevolution of populations. Topics include: demography, metapopulation biology, natural selection, migration, gene flow, and genetic drift. A discussion section will focus on mathematical elements of population biology models. Three hours of discussion per week. Students may not receive credit for both BIOL 4182 and BIOL 6182.

**BIOL 6192 Applications Of Geographic Information Systems: 5 semester hours**

Prerequisites: BIOL 2102, BIOL 4122 or equivalent, and consent of instructor. Geographic Information Systems (GIS) are sophisticated computer-based systems for analysis, capture, presentation, and maintenance of geographically referenced data. This course provides a foundation in using GIS for spatial analysis. Although biological examples are primarily used, examples from a range of disciplines are employed to emphasize the use of GIS as a tool to support analysis and decision-making. Students will have hands-on use of GIS software using Windows 2000/NT based workstations during each session. An independent research project applying the spatial analysis tools learned in GIS to biological research will be required. Five hours of combined lecture and computer operations, plus 2-3 hours of open lab per week.



**BIOL 6212 Theory And Application Of Conservation Biology: 3 semester hours**

Prerequisite: BIOL 4182 or BIOL 5162 or equivalent or consent of instructor. Prerequisites may be taken concurrently. Advanced analysis of conservation theory with emphasis on conservation of populations, their genetic diversity, and the biodiversity of habitats. Applied aspects of conservation and sustainable development will be illustrated through case studies presented by conservation professionals.

**BIOL 6222 Advanced Tropical Ecology And Conservation: 3 semester hours**

Prerequisite: BIOL 2102, BIOL 4182, or BIOL 5192, or their equivalent. This course will cover research areas in tropical population, community and ecosystem ecology, with emphasis on inter-species and environment-organism interactions, population control factors, and genetic structure of populations. Topics include the current status and causes of tropical habitat destruction, ongoing attempts to manage those habitats, and development of strategies leading to sustained use of non-renewable resources. A research proposal designed to investigate a current topic in tropical ecology will be required. Students may not receive credit for BIOL 4222 and BIOL 6222. Three hours of lecture per week.

**BIOL 6250 Public Policy Of Conservation And Sustainable Development: 3 semester hours**

Prerequisite: Same as POL SCI 6452. Graduate standing in Biology or Political Science and consent of instructor. Prior course in ecology recommended. This course will introduce the student to concepts and techniques for formulating, implementing, and analyzing public policy with an emphasis on environmental concerns, conservation, and sustainable development. The course will be team taught by a political scientist and a biologist. Course materials will include case studies that demonstrate the special problems of environmental policymaking in developing and developed economies.

**BIOL 6270 Advanced Global Climate Change: 3 semester hours**

Prerequisites: Graduate Standing or permission of the instructor. We will cover the fundamental physical, meteorological, and biological circumstances of global climate change, as well as predictions of its future effects on biological diversity, including humans, and how those estimates are made. We will also cover basic environmental economics and politics of climate change at local and global levels. The course will be taught as a series of lectures and discussions led by guest experts in each of the subdisciplines covered. Students may not receive credit for both BIOL 4270 and BIOL 6270.

**BIOL 6299 Internship In Conservation Biology: 1-4 semester hours**

Prerequisite: BIOL 6250 or BIOL 6212 and consent of the director of graduate studies in biology. Internships will consist of a period of study, observation and on-the-job training at a conservation or environmental agency. Specific placements will be selected according to student's interests and career goals. Internships may vary from 2 weeks to 4 months in duration.

**BIOL 6442 Advanced Developmental Biology: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 3622. A study of the basic principles that shape the embryonic and post-embryonic development of animals with an emphasis on the underlying cellular and molecular mechanisms. Specific topics include fertilization, determination of cell fate and differentiation, cell migration, establishment of the body plan, formation of selected organs and organ systems, stem cells, and limb regeneration. Environmental influences on development and the impact of developmental biology on modern medicine are also discussed. Three hours of lecture/discussion per week. Students may not receive credit for both BIOL 4442 and BIOL 6442.

**BIOL 6502 Advanced Evolution of Cognition: 3 semester hours**

Prerequisites: BIOL 3102 and BIOL 3302, or consent of instructor. PSYCH 2211 strongly recommended. The evolutionary ecology of animal cognitive abilities. Topics include learning, memory, perception, navigation, and communication from an evolutionary perspective. The focus is on cognitive abilities as adaptations, which have evolved to solve specific environmental problems. Topics include empirical methods for assessing cognitive ability, experimental design, theoretical approaches for generating predictions, and the parsimonious interpretation of data. Two hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4502 and BIOL 6502.

**BIOL 6550 Advanced Bacterial Pathogenesis: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. Examination of the strategies bacterial pathogens use to infect animals. Topics include host immune responses to infection, bacterial virulence factors, regulation of bacterial virulence, and the cellular and molecular approaches used to study host-parasite interactions. Students may not receive credit for both BIOL 6550 and BIOL 4550. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Three hours of lecture per week.

**BIOL 6552 Advanced Evolution And Phylogeny Of Seed Plants: 5 semester hours**

Prerequisites: BIOL 3302 or BIOL 2501, or equivalent. Advanced approaches in examination of the evolution of, and relationships among, major lines of seed-bearing plants, both extinct (Bennettitales, cordaites, etc.) and extant (conifers, cycades, ginkgo, Gnetales, and flowering plants). Criteria for the assessment of morphological homology are examined, and wherever possible the evolution of morphological structures is related to their function. Includes use of cladistic methods and practical exercises in the analysis of large morphological data matrices using PAUP and MacClade. Two hours of lecture per week and one hour of laboratory per week to be arranged. Does not fulfill a laboratory requirement for biology majors. Students may not receive credit for both BIOL 4552 and BIOL 6552.

**BIOL 6602 Advanced Molecular Biology: 3 semester hours**

Prerequisites: BIOL 2012 and CHEM 2612, or consent of instructor. A study of the principles of molecular biology, with emphasis on understanding the genetic regulation of DNA, RNA, and protein synthesis and function in eukaryotic cells. Three hours of lecture per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Students may not receive credit for both BIOL 6602 and BIOL 4602, or any course previously called Gene Expression in Eukaryotes or Advanced Gene Expression in Eukaryotes.

**BIOL 6612 Advanced Molecular Genetics Of Bacteria: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 2482. A study of the molecular biology of gene replication, transfer, and expression in bacterial cells. Topics include DNA replication, transcription and translation, mutagenesis, DNA repair and recombination, gene transfer, and the regulation of genes and global expression systems. Three hours of lecture per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Student may not receive credit for both BIOL 6612 and BIOL 4612 or any course previously called Gene Expression in Prokaryotes or Advanced Gene Expression in Prokaryotes.

**BIOL 6615 Advanced Biotechnology Laboratory II: 4 semester hours**

Prerequisites: BIOL 4614 and either BIOL 4602 or BIOL 4612, or consent of instructor. An in-depth look at the theory and practice of biotechnology. Lectures and discussion will examine the underlying principles, and laboratory exercises will present hands-on experience with current techniques. One hour of lecture and six hours of laboratory per week. Students will be required to give an oral presentation and/or write an extra paper on a topic relevant to the course. Students may not receive credit for both BIOL 6615 and BIOL 4615 or any course previously called Techniques in Molecular Biology or Advanced Techniques in Molecular Biology.

**BIOL 6622 Advanced Cellular Basis of Disease: 3 semester hours**

Prerequisites: BIOL 3622, or consent of instructor. A study of the structural organization and processes of eukaryotic cells, focusing on how defects in cellular function lead to genetic diseases and cancer. Topics of discussion may include membrane dynamics, intracellular trafficking, signal transduction, and the cell cycle. Three hours of lecture per week. Students may not receive credit for both BIOL 6622 and BIOL 4622.

**BIOL 6632 Advanced Nucleic Acid Structure And Function: 3 semester hours**

Prerequisites: BIOL 2012 and BIOL 4712 or equivalent, or consent of instructor. A comprehensive view of the structural properties of DNA and RNA that promote molecular interactions & biological function. Topics will include the physical properties of nucleic acids, the formation and biological importance of higher order structures, RNA enzymatic activities, nucleic acid-protein interactions, and RNA metabolism. Three hours of lecture and one hour of discussion per week. Students may not receive credit for both BIOL 4632 and BIOL 6632.

**BIOL 6642 Advanced Plant Biology And Biotechnology: 3 semester hours**

Prerequisites: BIOL 4602 or BIOL 4612. Topics may include molecular and cellular aspects of plant growth, development, and responses to environmental stress and pathogen attack, using the experimental approaches of genetics, molecular biology, and biochemistry. Plant growth manipulation and genetic engineering, including the techniques required for DNA transfer and plant regeneration, as well as current and potential future applications, such as engineered resistance to stress, developmental engineering, and metabolic engineering, also will be covered. Student may not receive credit for both BIOL 4642 and BIOL 6642.

**BIOL 6652 Advanced Virology: 3 semester hours**

Prerequisites: BIOL 2012, BIOL 3622, and graduate standing. This first half of the course entails a comparative study of the structure, replication, and molecular biology of viruses. The second half of the course focuses on the pathogenesis, control, and evolution of animal viruses. Three hours of lecture, one hour of discussion or seminar per week. Students may not receive credit for both BIOL 4652 and BIOL 6652.

**BIOL 6699 Graduate Internship In Biotechnology: 1-4 semester hours**

Prerequisites: Graduate standing and enrollment in graduate Biotechnology Certificate Program. 6 credit hours maximum (maximum of 8 combined credit hours of BIOL 6905 and internship) Internship will consist of period of observation, experimentation and on-the-job training in biotechnology laboratory. The laboratory may be industrial or academic. Credit will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the instructor. Internship assignments will be commensurate with the education and experience of the student.

**BIOL 6889 Graduate Seminar: 2 semester hours**

Presentation and discussion of various research problems in biology. Graduate student exposure to the seminar process.

**BIOL 6905 Graduate Research In Biology: 1-10 semester hours**

Research in area selected by student in consultation with faculty members.

**BIOL 6915 Graduate Research Practicum: 1-2 semester hours**

Prerequisite: Consent of instructor. This course is designed for graduate students wishing to pursue research experience in an area outside their dissertation topic. The project can be techniques-oriented or focused on a specific research question. The credit hours will depend on the time commitment to the project as decided by the supervisory faculty member.

## Business Administration

### Courses

**BUS AD 1000 Introduction to Business: 3 semester hours**

Overview of the functional business disciplines, including, but not limited to principles of Accounting, Finance, Information Systems, Law, Logistics and Operations Management, Management, and Marketing.

**BUS AD 1900 Introduction to Personal Law: 3 semester hours**

This course introduces students to the American legal system and the basic issues every individual must deal with in our society. The course will be of interest to anyone seeking a job, leasing an apartment, buying a car or house, borrowing money, buying insurance, getting married or divorced, entering contracts, filing a law suit, writing a will, or accumulating wealth. May not be used for credit in any undergraduate business program.

**BUS AD 2000 Topics In Business Administration: 1-3 semester hours**

Prerequisites: Vary with topic; contact the School of Business Administration. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**BUS AD 2900 Legal Environment Of Business: 3 semester hours**

Prerequisites: Sophomore Standing. An introduction to the nature and meaning of law, sources of law, legal process and institutions. The legal environment of business is defined as: the attitude of the government toward business, the historical development of this attitude; current trends of public control in taxation, regulation of commerce and competition; freedom of contract, antitrust legislation and its relationship to marketing, mergers and acquisitions; and labor management relations.

**BUS AD 3090 Internship In Business Administration: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 hours of Business Administration electives and have consent of supervising instructor and Associate Dean. College of Business GPA of at least 2.5 is also required. Students are employed in the field of Business Administration where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. A Business Administration faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BUS AD 3090 may not be counted toward the minimum credit hours for any emphasis area.

**BUS AD 3099 Independent Study In Business Administration: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Associate Dean. Special individual study in business under the supervision of a full-time faculty member.

**BUS AD 3900 Business Law: Contracts, Sales, Secured Transactions, Bankruptcy: 3 semester hours**

Prerequisite: BUS AD 2900, or consent of instructor. Introduction to the laws of contracts, sales, secured transactions, bankruptcy, and other selected topics.

**BUS AD 3990 Internship In Business Law: 1-3 semester hours**

Prerequisites: BUS AD 2900, 3 credit hours of Business Law electives, and a Business College 2.5 GPA. Must have completed and/or be currently enrolled in at least 3 credit hour of Business Law electives and have consent of supervising instructor and Area Coordinator. Students are employed in the field of Business Law where the knowledge and skills learned in the classroom are applied. Professional development and obtaining specialized work experience are primary goals. A Business Law faculty member will monitor the student's program with the student providing a formal written report at the end of the project.

**BUS AD 3999 Independent Study In Legal Studies: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in legal studies under the supervision of a full-time legal studies faculty member.

**BUS AD 4198 Business Administration Senior Seminar: 1-10 semester hours**

Prerequisites: To be determined each time the course is offered and to include minimum 2.0 campus GPA. An intensive study of a specific area of business administration, of some specific business or economic phenomenon, or a specific problem or theory. Several different courses may be offered under this course number. May be repeated for credit as long as the topic differs.

**BUS AD 5000 Economics For Managers: 3 semester hours**

Prerequisites: none The first portion of this course introduces microeconomic analysis of consumers, firms, and government. The concepts and tools of economic analysis are applied to the production and distribution functions of organizations. The last portion is devoted to the macroeconomic influence of capital markets, the influence of interest rates, inflation, and the business cycle.

**BUS AD 5001 Managerial Economic Analysis: 3 semester hours**

Prerequisites: BUS AD 5000 or ECON 1001 and ECON 1002. Microeconomic analysis of consumers, firms, and government. The concepts and mathematical tools of economic analysis are applied to the production and distribution functions of organizations.

**BUS AD 5002 Analysis Of National Economic Environment: 3 semester hours**

Prerequisites: BUS AD 5000 or ECON 1001 and ECON 1002. The character and functioning of the national economic system; analyzing and forecasting fluctuations in national income and product, employment, and prices; the influence of monetary and fiscal policies. Emphasis is on the acquisition of knowledge concerning forces affecting all business firms.

**BUS AD 5100 Managerial Communication: 3 semester hours**

An analysis of business writing and speaking, and the communication conventions common in organizations. Emphasis is placed on developing skills critical to career advancement and necessary for effective organizational functioning. A second goal is to prepare students for assignments in other business courses. This course must be taken within the first 12 credit hours of study, preferably in the student's first semester.

**BUS AD 5198 Seminar In Business Administration: 3 semester hours**

An intensive study of a specific area of business administration of some specific business or economic phenomenon, or a specific problem or theory. Several different courses may be offered under this course number.

**BUS AD 5299 Individual Research: 1-3 semester hours**

Prerequisite: Consent of instructor and graduate director. Special individual research topics under the guidance of a specific professor.

**BUS AD 5450 Governmental Budgeting And Financial Control: 3 semester hours**

Prerequisite: ACCTNG 5400. A study of municipal and federal financial control and budgeting procedures with emphasis on public policy. The impact of financial control on top management decisions and the effect of budget strategies on the allocations of public funds.

**BUS AD 5900 Law, Ethics And Business: 3 semester hours**

Analysis of the relationship between law and business with emphasis on the ability of, and extent to which, governments regulate business activities. Topics covered include the employer-employee relationship, protection of consumers, antitrust regulation, and securities law. Also discussed are ethical issues confronting management of the modern business enterprises.

**BUS AD 6990 Strategy Formulation And Implementation: 3 semester hours**

Prerequisites: FINANCE 6500, MGMT 5600, MKTG 5700, LOG OM 5320 and special consent. Graduate program capstone course examining concepts and methods that integrate functional areas of business. The perspective is that of general management charged with directing the total enterprise. Interactions between the environment, organization, strategy, policies and the implementation of plans are explored. Special emphasis is given to globalization of business and ethical perspectives. This course should be taken during the semester prior to graduation. In no case may it be taken sooner than two semesters prior to graduation.

**BUS AD 7001 Doctoral Research: 1-12 semester hours**

Prerequisites: Must have Ph.D. Program Director or Area Coordinator approval Investigation of an advanced nature culminating in preparation for comprehensive examinations and/or development of dissertation proposal. The course may be repeated for credit.

**BUS AD 7002 Dissertation Research: 1-12 semester hours**

Prerequisites: Must have Ph.D. Program Director or Area Coordinator approval. Investigation of an advanced nature culminating preparation of a doctoral dissertation. The course may be repeated.

**BUS AD 7021 Qualitative Methods And Philosophical Foundations Of BA Research: 3 semester hours**

Prerequisites: Admittance into the Ph.D. Program This course investigates the ontology and epistemology of business administration research, particularly as they pertain to qualitative research methods, such as case studies, action research, and ethnomethodology.

**BUS AD 7300 Statistical Modeling: 3 semester hours**

Prerequisites: LOG OM 5300; Admittance into the Ph.D. Program. Study of multivariate analytical techniques and their application to the analysis of business systems. Topics include the construction and adaptation of statistical models and extrapolative techniques to accommodate factor interactions, nonlinearities, and periodic effects. Methodologies include multiple regression, ANOVA, and general linear model, MANOVA, structural equation modeling, and time series modeling.



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Prerequisites: LOG OM 5300; Admittance into the Ph.D. Program. Study of multivariate analytical techniques and their application to the analysis of business systems. Topics include the construction and adaptation of statistical models and extrapolative techniques to accommodate factor interactions, nonlinearities, and periodic effects. Methodologies include multiple regression, ANOVA, and general linear model, MANOVA, structural equation modeling, and time series modeling.

## Child Advocacy Studies

### Courses

**CAST 3290 Traumatic Stress in Childhood and Adolescence: 3 semester hours**

SAME AS PSYCH 3290. Prerequisites: PSYCH 2270 (majors), PSYCH 1268, or approval from the instructor. Exploration of the impact of stressors experienced during infancy, childhood and adolescence. Integrates how theoretical frameworks, cultural considerations and policy implications apply to child development research and practice.

**CAST 4398 Child Maltreatment: A Multidisciplinary Approach: 3 semester hours**

SAME AS PSYCH 4398 and SOC WK 4398. Focuses on clinical aspects of child abuse with attention to identification, reporting, intervention and prevention. Perspectives from the disciplines of psychology and social work are provided.

**CAST 4498 Forensic Investigation of Child Abuse: 3 semester hours**

Prerequisites: CAST 4398/PSYCH 4398/SOC WK 4398. Designed for students across multiple disciplines where knowledge of child abuse investigation and advocacy are necessary. Focuses on the investigative and prosecutorial responses of professionals involved with child abuse cases to expand the student's knowledge and skills in the most effective response to child abuse investigations. Includes competency-based skills training such as conducting a cursory interview, participating in peer review, doing case presentations, and producing investigative documentation.

**CAST 4598 Child Abuse Assessment and Intervention: 3 semester hours**

Prerequisites: CAST 4398/PSYCH 4398/SOC WK 4398. Provides students with knowledge and skills to intervene effectively and empathically with families that experience child abuse and neglect. Uses experiential learning to develop skills in trauma-focused screening, assessment, and crisis intervention for vulnerable children and their families who are involved with child serving systems such as law enforcement, child protective services, prosecution, and physical and mental health.

**CAST 4698 Internship in Child Advocacy Studies: 3 semester hours**

SAME AS PSYCH 4698. Prerequisites: PSYCH 4398, completion of or concurrent enrollment in PSYCH 4498 and PSYCH 4598, and approval from the CAST director. Internship under CAST staff supervision in child or youth-serving setting. Monthly seminar participation required. Approval from the CAST director is required prior to enrolling.

### Courses

**CAST 3290 Traumatic Stress in Childhood and Adolescence: 3 semester hours**

SAME AS PSYCH 3290. Prerequisites: PSYCH 2270 (majors), PSYCH 1268, or approval from the instructor. Exploration of the impact of stressors experienced during infancy, childhood and adolescence. Integrates how theoretical frameworks, cultural considerations and policy implications apply to child development research and practice.

**CAST 4398 Child Maltreatment: A Multidisciplinary Approach: 3 semester hours**

SAME AS PSYCH 4398 and SOC WK 4398. Focuses on clinical aspects of child abuse with attention to identification, reporting, intervention and prevention. Perspectives from the disciplines of psychology and social work are provided.

**CAST 4498 Forensic Investigation of Child Abuse: 3 semester hours**

Prerequisites: CAST 4398/PSYCH 4398/SOC WK 4398. Designed for students across multiple disciplines where knowledge of child abuse investigation and advocacy are necessary. Focuses on the investigative and prosecutorial responses of professionals involved with child abuse cases to expand the student's knowledge and skills in the most effective response to child abuse investigations. Includes competency-based skills training such as conducting a cursory interview, participating in peer review, doing case presentations, and producing investigative documentation.

**CAST 4598 Child Abuse Assessment and Intervention: 3 semester hours**

Prerequisites: CAST 4398/PSYCH 4398/SOC WK 4398. Provides students with knowledge and skills to intervene effectively and empathically with families that experience child abuse and neglect. Uses experiential learning to develop skills in trauma-focused screening, assessment, and crisis intervention for vulnerable children and their families who are involved with child serving systems such as law enforcement, child protective services, prosecution, and physical and mental health.

**CAST 4698 Internship in Child Advocacy Studies: 3 semester hours**

SAME AS PSYCH 4698. Prerequisites: PSYCH 4398, completion of or concurrent enrollment in PSYCH 4498 and PSYCH 4598, and approval from the CAST director. Internship under CAST staff supervision in child or youth-serving setting. Monthly seminar participation required. Approval from the CAST director is required prior to enrolling.

## Chemistry

### Courses

**CHEM 1011 Chemistry In The Environment And Every Day Living: 3 semester hours**

This course examines the role of chemistry in everyday life and in the environment, and is intended for students not pursuing scientific or engineering majors. Chemical principles are introduced to the extent necessary for understanding of issues, but this course does not provide the basis for further technical courses. Two hours of lecture per week; on alternate weeks, one hour of discussion or two hours of laboratory.

**CHEM 1052 Chemistry For The Health Professions: 4 semester hours**

An introduction to general, nuclear, structural organic, organic reactions and biochemistry. This course is designed primarily for students in nursing and related health professions, and should not be taken by students majoring in the physical or biological sciences. Chemistry majors may include neither CHEM 1052 or CHEM 1062 in the 120 hours required for graduation. Four hours of lecture per week.

**CHEM 1062 Organic & Biochem For The Health Professions: 2 semester hours**

Prerequisites: Any college Chemistry course An introduction to organic reactions and biochemistry. CHEM 1062 is offered during the second half of the semester. Four hours of lecture per week.

**CHEM 1081 Introductory Chemistry I-A: 3 semester hours**

Prerequisites: MATH 1030 (or a score of 26 or higher on either the Math ACT or the Math Placement Test). This course is designed for students who want to have an in depth understanding of introductory concepts in Chemistry. CHEM 1081 covers the topics taught in the first half of CHEM 1111 but at a slower pace, thus allowing students time to fully integrate the concepts and thereby build a stronger foundation for their subsequent Chemistry courses. CHEM 1081 consists of the first half of CHEM 1111 (excluding laboratory experiments), whereas CHEM 1091 covers all the laboratory experiments and second half of lecture part of CHEM 1111. Three hours of lecture or workshop per week.

**CHEM 1091 Introductory Chemistry IB: 3 semester hours**

Prerequisites: CHEM 1081 and MATH 1035 (MATH 1035 may be taken concurrently). CHEM 1091 is the completion of CHEM 1111 for students who have completed CHEM 1081. The laboratory portion of this course will start at the beginning of the semester. The lecture part of the course starts in mid-semester and students join an ongoing CHEM 1111 class. Students who completed CHEM 1081 must complete CHEM 1091 to be considered as having completed the equivalent of CHEM 1111. Three hours of lecture and one and one half hours of workshop during the second half of the semester, and three hours of laboratory per week during the entire semester.

**CHEM 1111 Introductory Chemistry I: 5 semester hours**

Prerequisite: MATH 1030 (or a score of 26 or higher on either the Math ACT or the Missouri Math Placement Test) and MATH 1035 (MATH 1035 may be taken concurrently). Presents an introduction to the fundamental laws and theories of chemistry. Laboratory experiments are designed to demonstrate some aspects of qualitative and quantitative analysis and to develop skills in laboratory procedures. Chemistry majors may not include both CHEM 1011 and CHEM 1111 in the 120 hours required for graduation. Three hours of lecture, one and one-half hours of workshop, and three hours of laboratory per week.

**CHEM 1121 Introductory Chemistry II: 5 semester hours**

Prerequisite: CHEM 1111 or advanced placement. Lecture and laboratory are a continuation of CHEM 1111. Three hours of lecture, one and one-half hours of workshop and three hours laboratory per week.

**CHEM 1134 Special Topics In Introductory Chemistry: 1-5 semester hours**

Prerequisite: Consent of instructor. A lecture and/or laboratory course to assist transfer students to complete the equivalent of CHEM 1111 and CHEM 1121. Students enrolling in this course should contact the instructor prior to the first day of class for guidelines on course requirements, to choose a lab or workshop section, and to request enrollment in the course website.

**CHEM 2223 Quantitative Analysis: 3 semester hours**

Prerequisites: CHEM 1121 Principles and practice of elementary quantitative chemistry. The lecture treats descriptive statistics with emphasis on small samples; various types of competing equilibria pertaining to acid-base, complexometric, and potentiometric titrations; and an introduction to spectrophotometric processes. The laboratory provides exercises in titrimetric gravimetric, and spectrophotometric techniques. Both portions of the course deal with the analytical chemistry of environmentally-significant problems. Two hours of lecture and four and one-half hours of laboratory weekly.

**CHEM 2612 Organic Chemistry I: 3 semester hours**

Prerequisite: CHEM 1121 (may be taken concurrently). An introduction to the structure, properties, synthesis, and reactions of aliphatic and aromatic carbon compounds. Three hours of lecture per week.

**CHEM 2622 Organic Chemistry II: 3 semester hours**

Prerequisite: CHEM 2612. A systematic study of organic reactions and their mechanisms; organic synthetic methods. Three hours of lecture per week.

**CHEM 2633 Organic Chemistry Laboratory: 2 semester hours**

Prerequisite: CHEM 2612 An introduction to laboratory techniques and procedures of synthetic organic chemistry including analysis of organic compounds. One hour of lecture and four and one-half hours of laboratory per week.

**CHEM 3022 Introduction To Chemical Literature: 1 semester hour**

Prerequisites: CHEM 2622 (2622 may be taken concurrently) and CHEM 3412. This course will familiarize the student with the literature of chemistry and its use. One hour of lecture per week.

**CHEM 3302 Physical Chemistry For The Life Sciences: 3 semester hours**

Prerequisites: CHEM 2612 and MATH 1800 or MATH 1100, and PHYSICS 1012 Principles and applications of physical chemistry appropriate to students pursuing degree programs in the life sciences. Topics will include thermodynamics, equilibria, kinetics, and spectroscopy. This course is intended for undergraduates seeking the B.S. degree in Biochemistry and Biotechnology and does not fulfill the physical chemistry required for other Chemistry B.A. and B.S. degree programs.

**CHEM 3312 Physical Chemistry I: 3 semester hours**

Prerequisites: CHEM 1121 and MATH 2000 (MATH 2000 may be taken concurrently), and PHYSICS 2111. Principles of physical chemistry, including thermodynamics, theory of gases, phase equilibria, kinetics, crystal structure, spectroscopy, and quantum mechanics. Three hours per week.

**CHEM 3322 Physical Chemistry II: 3 semester hours**

Prerequisite: CHEM 3312 and MATH 2000. Continuation of CHEM 3312. Three hours lecture per week.

**CHEM 3333 Physical Chemistry Laboratory I: 2 semester hours**

Prerequisites: CHEM 2223 and CHEM 3312 Experiments designed to illustrate principles introduced in CHEM 3312. One hour of lecture and four and one-half hours of laboratory per week.

**CHEM 3412 Basic Inorganic Chemistry: 2 semester hours**

Prerequisite: CHEM 1121. This course reviews the principles of atomic structure and studies covalent and ionic bonding. Topics include properties of the elements and synthesis, reactions and bonding aspects of important main group and transition metal compounds. Two hours lecture per week.

**CHEM 3643 Advanced Organic Chemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 3022 Identification of organic compounds by classical and spectroscopic methods; advanced techniques in synthesis and separation of organic compounds. One hour of lecture and four and one-half hours of laboratory per week. Not for graduate credit.

**CHEM 3905 Chemical Research: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent laboratory and library study, in conjunction with faculty member, of fundamental problems in chemistry. A written report describing the research is required.

**CHEM 4212 Instrumental Analysis: 2 semester hours**

Prerequisites: CHEM 3322 Principles and applications of modern methods of instrumental analysis for analytical chemistry measurements. Topics will be selected from the areas of electrochemistry, absorption and emission spectroscopy, chromatography, mass spectrometry, surface analysis, and nuclear magnetic resonance. Two hours of lecture per week.

**CHEM 4233 Laboratory In Instrumental Analysis: 2 semester hours**

Prerequisites: CHEM 4212, CHEM 3333 Experiments designed to illustrate the principles and practices of instrumental analysis, involving the use of modern instrumentation in analytical chemistry applications. One hour of discussion and four and one-half hours of laboratory per week.

**CHEM 4302 Survey Of Physical Chemistry With Applications To The Life Scienc: 3 semester hours**

Prerequisites: CHEM 2612 and MATH 1800 or MATH 1100, and PHYSICS 1012. Principles of physical chemistry with applications to the life sciences. Topics will include thermodynamics, equilibria, kinetics, and spectroscopy. This course will be taught simultaneously with CHEM 3302, but students in CHEM 4302 will have additional assignments or projects. No student may receive credit for both CHEM 3302 and CHEM 4302.

**CHEM 4343 Physical Chemistry Laboratory II: 2 semester hours**

Prerequisites: CHEM 3322 (may be taken concurrently) and CHEM 3333. Experiments designed to illustrate principles introduced in CHEM 2322. One hour of lecture and four and one-half hours of laboratory per week. Not for graduate credit.

**CHEM 4412 Advanced Inorganic Chemistry: 3 semester hours**

Prerequisites: CHEM 3322 (may be taken concurrently), CHEM 3412, and CHEM 2622 An introduction to the chemistry of the elements, including atomic and molecular structure, acids and bases, the chemistry of the solid state, and main group and transition metal chemistry. Three hours of lecture per week.

**CHEM 4433 Inorganic Chemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 3333, CHEM 3643, and CHEM 4412 (CHEM 3643 may be taken concurrently) The more sophisticated techniques of physical and analytical chemistry will be used to study inorganic compounds and their reactions. One hour of lecture and four and one-half hours of laboratory per week. Not for graduate credit.

**CHEM 4652 Spectroscopic Identification Of Organic Compounds: 3 semester hours**

Prerequisites: CHEM 3643 An applied approach to the use of spectroscopic techniques in organic chemistry. Topics to include integrated applications of infrared and Raman spectroscopy, nuclear magnetic resonance ( $^{13}\text{C}$  and  $^1\text{H}$ , cw and pulsed) and mass spectroscopy for the purpose of elucidating the structure of organic compounds. Three hours of lecture per week.

**CHEM 4712 Biochemistry: 3 semester hours**

Same as BIOL 4712. Prerequisites: CHEM 2612 and either BIOL 1831 or CHEM 2622. Examines the chemistry and function of cell constituents, and the interaction and conversions of intracellular substances. Students may not receive credit for both BIOL 4712 and CHEM 4712.

**CHEM 4722 Advanced Biochemistry: 3 semester hours**

Prerequisite: CHEM 4712. Selected advanced topics in the chemistry of life processes. Three hours lecture per week.

**CHEM 4733 Biochemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 4712 (may be taken concurrently), and CHEM 2223. Laboratory study of biochemical processes in cellular and subcellular systems with emphasis on the isolation and purification of proteins (enzymes) and the characterization of catalytic properties. One hour of lecture and four and one-half hours of laboratory per week.

**CHEM 4772 Physical Biochemistry: 3 semester hours**

Prerequisites: CHEM 3312 or CHEM 4712/ BIOL 4712 Designed to acquaint students with concepts and methods in biophysical chemistry. Topics that will be discussed include protein and DNA structures, forces involved in protein folding and conformational stability, protein-DNA interactions, methods for characterization and separation of macromolecules, electron transfer, and biological spectroscopy. Three hours of lecture per week.



**CHEM 4797 Biochemistry and Biotechnology Seminar: 1 semester hour**

Same as BIOL 4797. Prerequisites: Senior standing in the Biochemistry and Biotechnology program. This course will focus on selected publications related to biochemistry and biotechnology from both refereed journals and news sources. Students are expected to participate in discussions and to prepare oral and written presentations. Completion of the Major Field Achievement Test in Biochemistry & Biotechnology is a course requirement. May not be taken for graduate credit.

**CHEM 4814 Special Topics In Chemistry: 1-10 semester hours**

A reading and seminar course in selected advanced topics.

**CHEM 4897 Seminar: 1 semester hour**

Prerequisites: CHEM 3022 and senior standing Presentation of papers by students, faculty, and invited speakers. Chemistry majors must enroll during the semester in which they intend to graduate. Completion of a comprehensive examination during one of the semesters is a course requirement One hour of lecture and one hour of discussion per week.

**CHEM 5394 Special Topics In Physical Chemistry: 1-10 semester hours**

Prerequisite: Consent of instructor. Selected topics in physical chemistry; may be taken more than once for credit.

**CHEM 5396 Directed Readings in Physical Chemistry: 1-3 semester hours**

Prerequisites: Consent of Physical Chemistry Faculty. A series of readings of monographs, review papers, and/or research publications for a particular student directed at providing that student with appropriate background preparation for experimental or theoretical Ph.D.-level research in an area of physical chemistry. The particular readings will be selected by the physical chemistry staff. Potential topics include but are not limited to advances in Electrochemistry, Surface Chemistry, Thermodynamics, Molecular Spectroscopy, Quantitative Absorption Spectroscopy using new Methodologies, Applications of Group Theory in Spectroscopy, and Computational Chemistry. Assessment may be in various forms including by assignments and seminars. Students may take this course more than once for credit through the particular topic must be different in each case.

**CHEM 5422 Coordination Chemistry: 3 semester hours**

Prerequisite: CHEM 4412 or an equivalent course. Chemistry of the coordination compounds of the transition metals including such topics as kinetics and mechanisms of reaction, stereochemistry, ligand field theory, stability and electronic spectra. Three hours of lecture per week.

**CHEM 5462 Organometallic Chemistry Of The Transition Elements: 3 semester hours**

Prerequisites: CHEM 4412 or an equivalent course. A study of transition metal compounds containing metal-carbon bonds and related metal-element bonds, including their synthesis, structure and bonding, and reactions. Applications in organic synthesis and catalysis will also be presented. Three hours of lecture per week.

**CHEM 5494 Special Topics In Inorganic Chemistry: 1-3 semester hours**

Prerequisite: Consent of instructor. Selected topics in organic chemistry; may be taken more than once for credit.

**CHEM 5602 Advanced Organic Chemistry I - Physical Organic: 3 semester hours**

Prerequisites: CHEM 2622 and CHEM 3322 Mechanism and theory of organic chemistry. Topics to include kinetics, transition state theory, reaction intermediates, and stereochemical analysis. Three hours of lecture per week.

**CHEM 5612 Advanced Organic Chemistry II - Reactions And Synthesis: 3 semester hours**

Prerequisite: CHEM 2622 This course will examine a variety of organic transformations typically utilized in organic synthesis. Topics will include carbon-carbon bond formation, pericyclic reactions, oxidation, reduction, and functional group interconversions. Mechanism and stereochemistry will be emphasized. Three hours of lecture per week.

**CHEM 5694 Special Topics In Organic Chemistry: 3 semester hours**

Prerequisite: Consent of Instructor Advanced topics of special current interest. May be taken more than once for credit. Topics that may be offered include: Methods in Organic Synthesis, Organometallics in Organic Synthesis, Topics in Bioorganic Chemistry, Organic thermochemistry, Natural Products Chemistry, Stereochemistry, Photochemistry, Heterocyclic Chemistry, Medicinal Chemistry.

**CHEM 5774 Bioinformatics: 3 semester hours**

Prerequisites: CHEM 4712 or equivalent. This course introduces modern approaches in bioinformatics and computational biochemistry. Topics to be covered include a survey of biological databases, predictions from protein and DNA sequences, sequence alignment and sequence database searches, building phylogenetic trees, three-dimensional protein structure prediction, and molecular modeling and simulation.

**CHEM 5794 Special Topics In Biochemistry: 3 semester hours**

Prerequisites: Consent of instructor Selected topics in biochemistry. May be taken more than once for credit.

**CHEM 5798 Practicum in Science in Business: 1-2 semester hours**

Same As BIOL 5798. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis in Chemistry, Biochemistry & Biotechnology, or Biology. Students will integrate and apply their scientific expertise to a practical, business-related problem. The course will emphasize interdisciplinary team-work as well as both written and oral communication skills.

**CHEM 5799 Internship in Science in Business: 1-2 semester hours**

Same As BIOL 5799. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis area in Chemistry, Biochemistry & Biotechnology, or Biology. The internship will consist of period of on-the-job training at a local company. Credit hours will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the course instructor. Internship assignments will be commensurate with the education and experience of the student, with an emphasis on work at the interface between the scientific and business components of the company. A written report describing the internship project is required.

**CHEM 6196 Advanced Reading In Chemistry: 1 semester hour**

Prerequisite: Admission to the Ph.D. program. Reading and examinations in the sub-disciplines of chemistry. Enrollment must begin after completion of any course deficiencies.

**CHEM 6487 Problem Seminar In Inorganic Chemistry: 1 semester hour**

Prerequisite: Consent of the inorganic chemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. Ph.D. students may take more than once for credit. Up to three credits may be applied to the M.S. degree program.

**CHEM 6687 Problem Seminar In Organic Chemistry: 1-3 semester hours**

Prerequisite: Consent of the organic chemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. PH.D. Students may take more than once for credit. Up to three credits may be applied to the M.S. degree programs.



**CHEM 6787 Problem Seminar In Biochemistry: 1 semester hour**

Prerequisite: Consent of the biochemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. Ph.D. students may take more than once for credit. Up to three credits may be applied to the M.S. degree program.

**CHEM 6812 Introduction To Graduate Study In Chemistry: 1 semester hour**

Prerequisite: Consent of Graduate Advisor. Topics to be covered include: techniques of teaching of chemistry in colleges and universities, methods of instruction and evaluation; role and responsibilities of the Graduate Teaching Assistant in laboratory instruction; safety in the undergraduate laboratory, safety practices, emergency procedures; selection of a research project and thesis advisor.

**CHEM 6822 Introduction To Graduate Research In Chemistry: 1 semester hour**

Prerequisite: Consent of instructor. Topics to include: safety in the research laboratory, safety practices, emergency procedures, hazardous materials, waste disposal, radiation safety; research ethics, chemistry information retrieval, computer assisted information retrieval, types of databases, searching bibliographic data bases.

**CHEM 6832 Strategies for Independent Research Proposal Development: 1 semester hour**

Prerequisites: CHEM 6822 and Consent of Graduate Advisor. Topics include: strategies for identification of research topics in chemistry and biochemistry, techniques for database literature search, critical analysis of existing research knowledge, introduction to standard grant proposal formats, technical aspects in preparation of a research plan and accompanying sections, use of bibliographical software, and overview and practice of the peer review process.

**CHEM 6897 Chemistry Colloquium: 1 semester hour**

Presentation of papers by students, faculty and invited speakers. One hour per week.

**CHEM 6905 Graduate Research In Chemistry: 1-10 semester hours**

## Courses

**CHEM 1011 Chemistry In The Environment And Every Day Living: 3 semester hours**

This course examines the role of chemistry in everyday life and in the environment, and is intended for students not pursuing scientific or engineering majors. Chemical principles are introduced to the extent necessary for understanding of issues, but this course does not provide the basis for further technical courses. Two hours of lecture per week; on alternate weeks, one hour of discussion or two hours of laboratory.

**CHEM 1052 Chemistry For The Health Professions: 4 semester hours**

An introduction to general, nuclear, structural organic, organic reactions and biochemistry. This course is designed primarily for students in nursing and related health professions, and should not be taken by students majoring in the physical or biological sciences. Chemistry majors may include neither CHEM 1052 or CHEM 1062 in the 120 hours required for graduation. Four hours of lecture per week.

**CHEM 1062 Organic & Biochem For The Health Professions: 2 semester hours**

Prerequisites: Any college Chemistry course An introduction to organic reactions and biochemistry. CHEM 1062 is offered during the second half of the semester. Four hours of lecture per week.

**CHEM 1081 Introductory Chemistry I-A: 3 semester hours**

Prerequisites: MATH 1030 (or a score of 26 or higher on either the Math ACT or the Math Placement Test). This course is designed for students who want to have an in depth understanding of introductory concepts in Chemistry. CHEM 1081 covers the topics taught in the first half of CHEM 1111 but at a slower pace, thus allowing students time to fully integrate the concepts and thereby build a stronger foundation for their subsequent Chemistry courses. CHEM 1081 consists of the first half of CHEM 1111 (excluding laboratory experiments), whereas CHEM 1091 covers all the laboratory experiments and second half of lecture part of CHEM 1111. Three hours of lecture or workshop per week.

**CHEM 1091 Introductory Chemistry IB: 3 semester hours**

Prerequisites: CHEM 1081 and MATH 1035 (MATH 1035 may be taken concurrently). CHEM 1091 is the completion of CHEM 1111 for students who have completed CHEM 1081. The laboratory portion of this course will start at the beginning of the semester. The lecture part of the course starts in mid-semester and students join an ongoing CHEM 1111 class. Students who completed CHEM 1081 must complete CHEM 1091 to be considered as having completed the equivalent of CHEM 1111. Three hours of lecture and one and one half hours of workshop during the second half of the semester, and three hours of laboratory per week during the entire semester.

**CHEM 1111 Introductory Chemistry I: 5 semester hours**

Prerequisite: MATH 1030 (or a score of 26 or higher on either the Math ACT or the Missouri Math Placement Test) and MATH 1035 (MATH 1035 may be taken concurrently). Presents an introduction to the fundamental laws and theories of chemistry. Laboratory experiments are designed to demonstrate some aspects of qualitative and quantitative analysis and to develop skills in laboratory procedures. Chemistry majors may not include both CHEM 1011 and CHEM 1111 in the 120 hours required for graduation. Three hours of lecture, one and one-half hours of workshop, and three hours of laboratory per week.

**CHEM 1121 Introductory Chemistry II: 5 semester hours**

Prerequisite: CHEM 1111 or advanced placement. Lecture and laboratory are a continuation of CHEM 1111. Three hours of lecture, one and one-half hours of workshop and three hours laboratory per week.

**CHEM 1134 Special Topics In Introductory Chemistry: 1-5 semester hours**

Prerequisite: Consent of instructor. A lecture and/or laboratory course to assist transfer students to complete the equivalent of CHEM 1111 and CHEM 1121. Students enrolling in this course should contact the instructor prior to the first day of class for guidelines on course requirements, to choose a lab or workshop section, and to request enrollment in the course website.

**CHEM 2223 Quantitative Analysis: 3 semester hours**

Prerequisites: CHEM 1121 Principles and practice of elementary quantitative chemistry. The lecture treats descriptive statistics with emphasis on small samples; various types of competing equilibria pertaining to acid-base, complexometric, and potentiometric titrations; and an introduction to spectrophotometric processes. The laboratory provides exercises in titrimetric gravimetric, and spectrophotometric techniques. Both portions of the course deal with the analytical chemistry of environmentally-significant problems. Two hours of lecture and four and one-half hours of laboratory weekly.

**CHEM 2612 Organic Chemistry I: 3 semester hours**

Prerequisite: CHEM 1121 (may be taken concurrently). An introduction to the structure, properties, synthesis, and reactions of aliphatic and aromatic carbon compounds. Three hours of lecture per week.

**CHEM 2622 Organic Chemistry II: 3 semester hours**

Prerequisite: CHEM 2612. A systematic study of organic reactions and their mechanisms; organic synthetic methods. Three hours of lecture per week.

**CHEM 2633 Organic Chemistry Laboratory: 2 semester hours**

Prerequisite: CHEM 2612 An introduction to laboratory techniques and procedures of synthetic organic chemistry including analysis of organic compounds. One hour of lecture and four and one-half hours of laboratory per week.

**CHEM 3022 Introduction To Chemical Literature: 1 semester hour**

Prerequisites: CHEM 2622 (2622 may be taken concurrently) and CHEM 3412. This course will familiarize the student with the literature of chemistry and its use. One hour of lecture per week.

**CHEM 3302 Physical Chemistry For The Life Sciences: 3 semester hours**

Prerequisites: CHEM 2612 and MATH 1800 or MATH 1100, and PHYSICS 1012 Principles and applications of physical chemistry appropriate to students pursuing degree programs in the life sciences. Topics will include thermodynamics, equilibria, kinetics, and spectroscopy. This course is intended for undergraduates seeking the B.S. degree in Biochemistry and Biotechnology and does not fulfill the physical chemistry required for other Chemistry B.A. and B.S. degree programs.

**CHEM 3312 Physical Chemistry I: 3 semester hours**

Prerequisites: CHEM 1121 and MATH 2000 (MATH 2000 may be taken concurrently), and PHYSICS 2111. Principles of physical chemistry, including thermodynamics, theory of gases, phase equilibria, kinetics, crystal structure, spectroscopy, and quantum mechanics. Three hours per week.

**CHEM 3322 Physical Chemistry II: 3 semester hours**

Prerequisite: CHEM 3312 and MATH 2000. Continuation of CHEM 3312. Three hours lecture per week.

**CHEM 3333 Physical Chemistry Laboratory I: 2 semester hours**

Prerequisites: CHEM 2223 and CHEM 3312 Experiments designed to illustrate principles introduced in CHEM 3312. One hour of lecture and four and one-half hours of laboratory per week.

**CHEM 3412 Basic Inorganic Chemistry: 2 semester hours**

Prerequisite: CHEM 1121. This course reviews the principles of atomic structure and studies covalent and ionic bonding. Topics include properties of the elements and synthesis, reactions and bonding aspects of important main group and transition metal compounds. Two hours lecture per week.

**CHEM 3643 Advanced Organic Chemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 3022 Identification of organic compounds by classical and spectroscopic methods; advanced techniques in synthesis and separation of organic compounds. One hour of lecture and four and one-half hours of laboratory per week. Not for graduate credit.

**CHEM 3905 Chemical Research: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent laboratory and library study, in conjunction with faculty member, of fundamental problems in chemistry. A written report describing the research is required.

**CHEM 4212 Instrumental Analysis: 2 semester hours**

Prerequisites: CHEM 3322 Principles and applications of modern methods of instrumental analysis for analytical chemistry measurements. Topics will be selected from the areas of electrochemistry, absorption and emission spectroscopy, chromatography, mass spectrometry, surface analysis, and nuclear magnetic resonance. Two hours of lecture per week.

**CHEM 4233 Laboratory In Instrumental Analysis: 2 semester hours**

Prerequisites: CHEM 4212, CHEM 3333 Experiments designed to illustrate the principles and practices of instrumental analysis, involving the use of modern instrumentation in analytical chemistry applications. One hour of discussion and four and one-half hours of laboratory per week.

**CHEM 4302 Survey Of Physical Chemistry With Applications To The Life Scienc: 3 semester hours**

Prerequisites: CHEM 2612 and MATH 1800 or MATH 1100, and PHYSICS 1012. Principles of physical chemistry with applications to the life sciences. Topics will include thermodynamics, equilibria, kinetics, and spectroscopy. This course will be taught simultaneously with CHEM 3302, but students in CHEM 4302 will have additional assignments or projects. No student may receive credit for both CHEM 3302 and CHEM 4302.

**CHEM 4343 Physical Chemistry Laboratory II: 2 semester hours**

Prerequisites: CHEM 3322 (may be taken concurrently) and CHEM 3333. Experiments designed to illustrate principles introduced in CHEM 2322. One hour of lecture and four and one-half hours of laboratory per week. Not for graduate credit.

**CHEM 4412 Advanced Inorganic Chemistry: 3 semester hours**

Prerequisites: CHEM 3322 (may be taken concurrently), CHEM 3412, and CHEM 2622 An introduction to the chemistry of the elements, including atomic and molecular structure, acids and bases, the chemistry of the solid state, and main group and transition metal chemistry. Three hours of lecture per week.

**CHEM 4433 Inorganic Chemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 3333, CHEM 3643, and CHEM 4412 (CHEM 3643 may be taken concurrently) The more sophisticated techniques of physical and analytical chemistry will be used to study inorganic compounds and their reactions. One hour of lecture and four and one half hours of laboratory per week. Not for graduate credit.

**CHEM 4652 Spectroscopic Identification Of Organic Compounds: 3 semester hours**

Prerequisites: CHEM 3643 An applied approach to the use of spectroscopic techniques in organic chemistry. Topics to include integrated applications of infrared and Raman spectroscopy, nuclear magnetic resonance ( $^{13}\text{C}$  and  $^1\text{H}$ , cw and pulsed) and mass spectroscopy for the purpose of elucidating the structure of organic compounds. Three hours of lecture per week.

**CHEM 4712 Biochemistry: 3 semester hours**

Same as BIOL 4712. Prerequisites: CHEM 2612 and either BIOL 1831 or CHEM 2622. Examines the chemistry and function of cell constituents, and the interaction and conversions of intracellular substances. Students may not receive credit for both BIOL 4712 and CHEM 4712.

**CHEM 4722 Advanced Biochemistry: 3 semester hours**

Prerequisite: CHEM 4712. Selected advanced topics in the chemistry of life processes. Three hours lecture per week.

**CHEM 4733 Biochemistry Laboratory: 2 semester hours**

Prerequisites: CHEM 4712 (may be taken concurrently), and CHEM 2223. Laboratory study of biochemical processes in cellular and subcellular systems with emphasis on the isolation and purification of proteins (enzymes) and the characterization of catalytic properties. One hour of lecture and four and one-half hours of laboratory per week.

**CHEM 4772 Physical Biochemistry: 3 semester hours**

Prerequisites: CHEM 3312 or CHEM 4712/ BIOL 4712 Designed to acquaint students with concepts and methods in biophysical chemistry. Topics that will be discussed include protein and DNA structures, forces involved in protein folding and conformational stability, protein-DNA interactions, methods for characterization and separation of macromolecules, electron transfer, and biological spectroscopy. Three hours of lecture per week.

**CHEM 4797 Biochemistry and Biotechnology Seminar: 1 semester hour**

Same as BIOL 4797. Prerequisites: Senior standing in the Biochemistry and Biotechnology program. This course will focus on selected publications related to biochemistry and biotechnology from both refereed journals and news sources. Students are expected to participate in discussions and to prepare oral and written presentations. Completion of the Major Field Achievement Test in Biochemistry & Biotechnology is a course requirement. May not be taken for graduate credit.

**CHEM 4814 Special Topics In Chemistry: 1-10 semester hours**

A reading and seminar course in selected advanced topics.

**CHEM 4897 Seminar: 1 semester hour**

Prerequisites: CHEM 3022 and senior standing Presentation of papers by students, faculty, and invited speakers. Chemistry majors must enroll during the semester in which they intend to graduate. Completion of a comprehensive examination during one of the semesters is a course requirement One hour of lecture and one hour of discussion per week.

**CHEM 5394 Special Topics In Physical Chemistry: 1-10 semester hours**

Prerequisite: Consent of instructor. Selected topics in physical chemistry; may be taken more than once for credit.

**CHEM 5396 Directed Readings in Physical Chemistry: 1-3 semester hours**

Prerequisites: Consent of Physical Chemistry Faculty. A series of readings of monographs, review papers, and/or research publications for a particular student directed at providing that student with appropriate background preparation for experimental or theoretical Ph.D.-level research in an area of physical chemistry. The particular readings will be selected by the physical chemistry staff. Potential topics include but are not limited to advances in Electrochemistry, Surface Chemistry, Thermodynamics, Molecular Spectroscopy, Quantitative Absorption Spectroscopy using new Methodologies, Applications of Group Theory in Spectroscopy, and Computational Chemistry. Assessment may be in various forms including by assignments and seminars. Students may take this course more than once for credit through the particular topic must be different in each case.

**CHEM 5422 Coordination Chemistry: 3 semester hours**

Prerequisite: CHEM 4412 or an equivalent course. Chemistry of the coordination compounds of the transition metals including such topics as kinetics and mechanisms of reaction, stereochemistry, ligand field theory, stability and electronic spectra. Three hours of lecture per week.

**CHEM 5462 Organometallic Chemistry Of The Transition Elements: 3 semester hours**

Prerequisites: CHEM 4412 or an equivalent course. A study of transition metal compounds containing metal-carbon bonds and related metal-element bonds, including their synthesis, structure and bonding, and reactions. Applications in organic synthesis and catalysis will also be presented. Three hours of lecture per week.

**CHEM 5494 Special Topics In Inorganic Chemistry: 1-3 semester hours**

Prerequisite: Consent of instructor. Selected topics in organic chemistry; may be taken more than once for credit.

**CHEM 5602 Advanced Organic Chemistry I - Physical Organic: 3 semester hours**

Prerequisites: CHEM 2622 and CHEM 3322 Mechanism and theory of organic chemistry. Topics to include kinetics, transition state theory, reaction intermediates, and stereochemical analysis. Three hours of lecture per week.

**CHEM 5612 Advanced Organic Chemistry II - Reactions And Synthesis: 3 semester hours**

Prerequisite: CHEM 2622 This course will examine a variety of organic transformations typically utilized in organic synthesis. Topics will include carbon-carbon bond formation, pericyclic reactions, oxidation, reduction, and functional group interconversions. Mechanism and stereochemistry will be emphasized. Three hours of lecture per week.

**CHEM 5694 Special Topics In Organic Chemistry: 3 semester hours**

Prerequisite: Consent of Instructor Advanced topics of special current interest. May be taken more than once for credit. Topics that may be offered include: Methods in Organic Synthesis, Organometallics in Organic Synthesis, Topics in Bioorganic Chemistry, Organic thermochemistry, Natural Products Chemistry, Stereochemistry, Photochemistry, Heterocyclic Chemistry, Medicinal Chemistry.

**CHEM 5774 Bioinformatics: 3 semester hours**

Prerequisites: CHEM 4712 or equivalent. This course introduces modern approaches in bioinformatics and computational biochemistry. Topics to be covered include a survey of biological databases, predictions from protein and DNA sequences, sequence alignment and sequence database searches, building phylogenetic trees, three-dimensional protein structure prediction, and molecular modeling and simulation.

**CHEM 5794 Special Topics In Biochemistry: 3 semester hours**

Prerequisites: Consent of instructor Selected topics in biochemistry. May be taken more than once for credit.

**CHEM 5798 Practicum in Science in Business: 1-2 semester hours**

Same As BIOL 5798. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis in Chemistry, Biochemistry & Biotechnology, or Biology. Students will integrate and apply their scientific expertise to a practical, business-related problem. The course will emphasize interdisciplinary team-work as well as both written and oral communication skills.

**CHEM 5799 Internship in Science in Business: 1-2 semester hours**

Same As BIOL 5799. Prerequisites: Graduate standing and enrollment in a Professional Science emphasis area in Chemistry, Biochemistry & Biotechnology, or Biology. The internship will consist of period of on-the-job training at a local company. Credit hours will be determined by the number of hours the student works each week and in consultation between the intern's supervisor and the course instructor. Internship assignments will be commensurate with the education and experience of the student, with an emphasis on work at the interface between the scientific and business components of the company. A written report describing the internship project is required.

**CHEM 6196 Advanced Reading In Chemistry: 1 semester hour**

Prerequisite: Admission to the Ph.D. program. Reading and examinations in the sub-disciplines of chemistry. Enrollment must begin after completion of any course deficiencies.



**CHEM 6487 Problem Seminar In Inorganic Chemistry: 1 semester hour**

Prerequisite: Consent of the inorganic chemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. Ph.D. students may take more than once for credit. Up to three credits may be applied to the M.S. degree program.

**CHEM 6687 Problem Seminar In Organic Chemistry: 1-3 semester hours**

Prerequisite: Consent of the organic chemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. PH.D. Students may take more than once for credit. Up to three credits may be applied to the M.S. degree programs.

**CHEM 6787 Problem Seminar In Biochemistry: 1 semester hour**

Prerequisite: Consent of the biochemistry staff. Problems from the current literature, presentations and discussions by faculty, students and visiting scientists. Ph.D. students may take more than once for credit. Up to three credits may be applied to the M.S. degree program.

**CHEM 6812 Introduction To Graduate Study In Chemistry: 1 semester hour**

Prerequisite: Consent of Graduate Advisor. Topics to be covered include: techniques of teaching of chemistry in colleges and universities, methods of instruction and evaluation; role and responsibilities of the Graduate Teaching Assistant in laboratory instruction; safety in the undergraduate laboratory, safety practices, emergency procedures; selection of a research project and thesis advisor.

**CHEM 6822 Introduction To Graduate Research In Chemistry: 1 semester hour**

Prerequisite: Consent of instructor. Topics to include: safety in the research laboratory, safety practices, emergency procedures, hazardous materials, waste disposal, radiation safety; research ethics, chemistry information retrieval, computer assisted information retrieval, types of databases, searching bibliographic data bases.

**CHEM 6832 Strategies for Independent Research Proposal Development: 1 semester hour**

Prerequisites: CHEM 6822 and Consent of Graduate Advisor. Topics include: strategies for identification of research topics in chemistry and biochemistry, techniques for database literature search, critical analysis of existing research knowledge, introduction to standard grant proposal formats, technical aspects in preparation of a research plan and accompanying sections, use of bibliographical software, and overview and practice of the peer review process.

**CHEM 6897 Chemistry Colloquium: 1 semester hour**

Presentation of papers by students, faculty and invited speakers. One hour per week.

**CHEM 6905 Graduate Research In Chemistry: 1-10 semester hours**

## Chinese

### Courses

**CHINESE 1001 Chinese I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, reading, and writing of Mandarin Chinese and upon the acquisition of the fundamentals of grammar and syntax.

**CHINESE 1002 Chinese II: 5 semester hours**

Prerequisites: Chinese I or equivalent. Emphasis is placed upon the understanding, speaking, reading, and writing of Mandarin Chinese. Continuation of the acquisition of the fundamentals of grammar and syntax.

**CHINESE 1003 Chinese III: 3 semester hours**

Prerequisites: CHINESE 1002 or equivalent. Review and practice of vocabulary, fundamentals of grammar, syntax, reading and writing acquired in CHINESE 1002. This course is not a CHINESE 2101 equivalent and may not be counted towards a foreign language requirement.

**CHINESE 1005 Chinese Calligraphy and Writing in East Asia: 1 semester hour**

Same as JAPAN 1005. This course is an introduction to the art of Chinese calligraphy and the history and basic features of the writing systems in East Asia) Chinese, Japanese, Korean, Mongolian, Tibetan, etc.). Emphasis is placed on the Chinese script and writing Chinese characters correctly with a calligraphy brush and ink. Students practice writing basic strokes and characters and creating their own calligraphic works.

**CHINESE 1199 Special Topics: Language Immersion: Chinese: 1 semester hour**

Prerequisites: CHINESE 1001 or concurrent enrollment in CHINESE 1001. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

**CHINESE 2101 Intermediate Chinese I: 5 semester hours**

Prerequisites: CHINESE 1002 or equivalent. Grammar review and continued development of language skills.

**CHINESE 2102 Intermediate Chinese II: 5 semester hours**

Prerequisites: CHINESE 2101 or equivalent. Continuation of CHINESE 2101.

**CHINESE 2150 Chinese Literature In Translation: 3 semester hours**

A historical and critical introduction to great works in classical Chinese literature and culture. All Required readings will be in English translation. This course may be repeated for credit with different literary works with departmental approval. This course satisfies the University cultural diversity requirement.

**CHINESE 2190 Special Readings: 1-6 semester hours**

Prerequisites: CHINESE 2102 or consent of the department Independent study through readings, reports, and conferences.

**CHINESE 2191 Special Topics in Chinese Culture: 3 semester hours**

A topically organized introduction to Chinese culture and society. May be repeated for credit (up to 9 credits) when the topic varies.

**CHINESE 2199 Special Topics: Language Immersion: Chinese: 1 semester hour**

Prerequisites: CHINESE 2101 or concurrent enrollment in CHINESE 2101. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

### Courses

**CHINESE 1001 Chinese I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, reading, and writing of Mandarin Chinese and upon the acquisition of the fundamentals of grammar and syntax.

**CHINESE 1002 Chinese II: 5 semester hours**

Prerequisites: Chinese I or equivalent. Emphasis is placed upon the understanding, speaking, reading, and writing of Mandarin Chinese. Continuation of the acquisition of the fundamentals of grammar and syntax.



**CHINESE 1003 Chinese III: 3 semester hours**

Prerequisites: CHINESE 1002 or equivalent. Review and practice of vocabulary, fundamentals of grammar, syntax, reading and writing acquired in CHINESE 1002. This course is not a CHINESE 2101 equivalent and may not be counted towards a foreign language requirement.

**CHINESE 1005 Chinese Calligraphy and Writing in East Asia: 1 semester hour**

Same as JAPAN 1005. This course is an introduction to the art of Chinese calligraphy and the history and basic features of the writing systems in East Asia) Chinese, Japanese, Korean, Mongolian, Tibetan, etc.). Emphasis is placed on the Chinese script and writing Chinese characters correctly with a calligraphy brush and ink. Students practice writing basic strokes and characters and creating their own calligraphic works.

**CHINESE 1199 Special Topics: Language Immersion: Chinese: 1 semester hour**

Prerequisites: CHINESE 1001 or concurrent enrollment in CHINESE 1001. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

**CHINESE 2101 Intermediate Chinese I: 5 semester hours**

Prerequisites: CHINESE 1002 or equivalent. Grammar review and continued development of language skills.

**CHINESE 2102 Intermediate Chinese II: 5 semester hours**

Prerequisites: CHINESE 2101 or equivalent. Continuation of CHINESE 2101.

**CHINESE 2150 Chinese Literature In Translation: 3 semester hours**

A historical and critical introduction to great works in classical Chinese literature and culture. All Required readings will be in English translation. This course may be repeated for credit with different literary works with departmental approval. This course satisfies the University cultural diversity requirement.

**CHINESE 2190 Special Readings: 1-6 semester hours**

Prerequisites: CHINESE 2102 or consent of the department Independent study through readings, reports, and conferences.

**CHINESE 2191 Special Topics in Chinese Culture: 3 semester hours**

A topically organized introduction to Chinese culture and society. May be repeated for credit (up to 9 credits) when the topic varies.

**CHINESE 2199 Special Topics: Language Immersion: Chinese: 1 semester hour**

Prerequisites: CHINESE 2101 or concurrent enrollment in CHINESE 2101. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

## Center International Studies

### Courses

**C I ST 2000 Introduction to African/African American Studies: 3 semester hours**

The course examines the cultural and human experiences of Africans and peoples of the African Diaspora. The course will also explore the contributions of Africans and peoples of African descent in all areas of human endeavor, with particular emphasis on their cultural-aesthetics and social behavioral heritage.

**C I ST 3200 Study Abroad, Non UM-St. Louis Program: 1-24 semester hours****C I ST 5200 Study Abroad Non UM-St Louis Program Grad: 1-15 semester hours**

### Courses

**C I ST 2000 Introduction to African/African American Studies: 3 semester hours**

The course examines the cultural and human experiences of Africans and peoples of the African Diaspora. The course will also explore the contributions of Africans and peoples of African descent in all areas of human endeavor, with particular emphasis on their cultural-aesthetics and social behavioral heritage.

**C I ST 3200 Study Abroad, Non UM-St. Louis Program: 1-24 semester hours****C I ST 5200 Study Abroad Non UM-St Louis Program Grad: 1-15 semester hours**

## Computer Science

### Courses

**CMP SCI 1010 Introduction To Computers And The Internet: 3 semester hours**

Prerequisites: None. Covers basic concepts and components of a PC: survey of popular applications including e-mail, word processors, spreadsheets, overview of the Internet, popular browsers, World Wide Web, search engines, multimedia, web pages, security, and privacy. Credit not granted for both CMP SCI 1010 and INFSYS 1800.

**CMP SCI 1011 Introduction to the Internet and World Wide Web: 3 semester hours**

Intended for any student wishing to utilize the Internet and World Wide Web more effectively. Topics include networking basics, the Internet and World Wide Web, browsers, search engines, Web Services, utilities, tools, online privacy and security. Students will learn to develop a personal web page using skills acquired in the course.

**CMP SCI 1012 Learning to Program Using Virtual Worlds: 3 semester hours**

Introduces modern programming principles without requiring the knowledge of a traditional programming language. Instead, this course utilizes a novel graphical approach that enables the student to create, populate, and manipulate virtual 3-dimensional worlds which resemble video games. The development of these worlds allows students to gain direct experience and skills in using computers to solve problems. Students will create worlds of varying complexity.

**CMP SCI 1250 Introduction To Computing: 3 semester hours**

Prerequisites: MATH 1030 with B-or better, or MATH 1100, or MATH 1800. Provides an introduction to the concepts of computation, problem solving, and computer systems. Covers fundamental programming constructs, basic data types, and modularization using a modern high level language. Problem solving skills are developed through a progression of programming projects.

**CMP SCI 2250 Programming And Data Structures: 3 semester hours**

Prerequisite: CMP SCI 1250. Continuation of CMP SCI 1250. Discusses properties and implementation of abstract data types such as lists, trees, stacks and queues. Introduces procedural and class abstraction, basic program architecture, use of interfaces, modular programming, and file processing.

**CMP SCI 2261 Object-Oriented Programming: 3 semester hours**

Prerequisite: CMP SCI 2250. Introduces object-oriented concepts, terminology, and notation (UML) using Java. Covers encapsulation, classes, objects, inheritance, and the use of class libraries. Additional topics may include graphical user interfaces, applets, and related tools and technologies.

**CMP SCI 2700 Computer Organization and Architecture: 3 semester hours**

Prerequisite: CMP SCI 2250. Introduces details of computer systems from architectural and organizational points of view. Covers data representation, basic digital logic circuits, memory types and hierarchies, I/O and storage devices, CPU architectures such as RISC, CISC, parallel, and multi-core.

**CMP SCI 2750 System Programming and Tools: 3 semester hours**

Prerequisites: CMP SCI 2250. Covers systems programming, scripting, libraries, utilities, and development tools. Additional programming topics include piping, binary files, exception handling, command-line arguments and symbolic debugging. This course also explores tools available in the Unix/Linux environments.

**CMP SCI 3010 Web Programming: 3 semester hours**

Prerequisite: CMP SCI 2250 Provides a survey of current Web technologies including markup languages (such as HTML/XHTML, CSS, XML), client side languages (such as JavaScript), server side languages (such as PERL, PHP), and Web protocols. This course requires client-server computing projects.

**CMP SCI 3130 Design And Analysis Of Algorithms: 3 semester hours**

Prerequisites: CMP SCI 2250, MATH 1320, MATH 2450, and MATH 3000. Addresses the design and analysis of fundamental algorithms in computer science. Studies basic sorting algorithms, priority queues, order statistics, search trees, and hash tables. Analysis techniques may involve time and space complexity analysis of both iterative and recursive algorithms, analysis of algorithm correctness, and amortized complexity analysis. Additional topics may include data compression, string manipulation, greedy algorithms, dynamic programming, and graph traversal.

**CMP SCI 3710 Assembly Language Programming: 3 semester hours**

Prerequisite: CMP SCI 2700. Explores machine architecture concepts and principles through a study of assembly language programming. Topics covered include integer and floating point arithmetic, procedures, conditional processing, strings, macros, and interfaces to high level languages. Programming projects using a commercially available assembly language will be required.

**CMP SCI 4010 Advanced Web Development with Java: 3 semester hours**

Prerequisites: CMP SCI 2261 and CMP SCI 3010, or consent of instructor. Covers more advanced Java topics, along with related concepts and technologies for Web development. Topics may include database connectivity, multi threading, security, networking, MVC pattern, testing and source control for Java applications, and server-side topics such as servlets and web servers.

**CMP SCI 4030 Introduction to Intelligent Web: 3 semester hours**

Prerequisites: CMP SCI 2261, CMP SCI 2750, CMP SCI 3010, and CMP SCI 3130. Covers the application of artificial intelligence and other modern techniques to help construct, navigate, and experience the Web. Topics may include retrieval models, classification, mining, association, topology, and indexing algorithms such as PageRank and HITS. Credit cannot be earned for both CMP SCI 4030 and CMP SCI 5030.

**CMP SCI 4140 Theory Of Computation: 3 semester hours**

Prerequisite: CMP SCI 3130. Provides an introduction to the theory of computation. Describes basic computational models, such as finite state machines, pushdown automata, Turing machines and grammars. Covers the concept of nondeterministic computation and the relationships between different computational models. Discusses decidability, reducibility, and classification of problems into complexity classes based on their time and space complexity, such as P, NP, and PSPACE.

**CMP SCI 4250 Programming Languages: 3 semester hours**

Prerequisite: CMP SCI 2261 and CMP SCI 3010 or Graduate Standing. Studies the principles, approaches, and trade-offs in modern programming languages, including a comparative study of syntax, semantics, and pragmatics. Examines major programming paradigms: object-oriented, imperative, functional and logic.

**CMP SCI 4280 Program Translation: 3 semester hours**

Prerequisites: CMP SCI 2700, CMP SCI 2750, CMP SCI 3130 and CMP SCI 4250. Focuses on methods, techniques, and mechanisms used to create the abstraction from high level programming to machine level execution. This course also requires an individual, semester long project.

**CMP SCI 4300 Introduction To Artificial Intelligence: 3 semester hours**

Prerequisites: CMP SCI 2261, CMP SCI 2750 and CMP SCI 3130. Provides an introduction to artificial intelligence. The list of topics may include search, planning, knowledge-based reasoning, probabilistic inference, machine learning, natural language processing, and practical applications.

**CMP SCI 4340 Introduction to Machine Learning: 3 semester hours**

Prerequisites: CMP SCI 2261, CMP SCI 2750 and CMP SCI 3130. Provides an introduction to machine learning in the context of applications such as data mining, natural language processing, and adaptive computer systems. The course reviews several supervised, unsupervised, and reinforcement machine learning techniques such as naive Bayes networks, clustering, and decision trees. Selected concepts in computational learning theory may also be covered. Credit cannot be granted for both CMP SCI 4340 and CMP SCI 5340.

**CMP SCI 4410 Computer Graphics: 3 semester hours**

Prerequisites: CMP SCI 2750 and CMP SCI 3130. Covers the theoretical foundation and algorithms for computer graphics. Students learn the basics of graphics programming for modeling, rendering, and animation of 2D and 3D objects. Vector and raster graphics, and different display devices are also discussed. A brief discussion of special graphics hardware, such as GPU, may be presented.

**CMP SCI 4420 Introduction to Digital Image Processing: 3 semester hours**

Prerequisites: CMP SCI 2750 and CMP SCI 3130. Focuses on image analysis and visual perception. Students learn data structures and algorithms for image processing, region and texture analysis, image filtering, edge detection, contour following, and image enhancement in both spatial and frequency domain. Other topics may include color processing, coding for storage, retrieval, transmission, and image restoration. Credit cannot be granted for both CMP SCI 4420 and CMP SCI 5420.

**CMP SCI 4500 Introduction to the Software Profession: 3 semester hours**

Prerequisite: CMP SCI 2261, CMP SCI 2700, CMP SCI 2750, CMP SCI 3010, and CMP SCI 3130. Focuses on software development and on the skills required for success in the software profession. Topics related to software development may include software process, models and views, software architectures, documentation, and testing strategies. Topics related to the profession may include ethics, licensing, copyright, trademarks, and professional conduct. Individual and group projects, research, and presentations may be required in this capstone course.

**CMP SCI 4520 Introduction to Object-Oriented Analysis And Design: 3 semester hours**

Prerequisite: CMP SCI 2261, CMP SCI 3010, CMP SCI 3130. Covers object-oriented development, illustrated with a visual modeling language and following an agile process. Discusses elements of analysis, requirements, design, implementation, and deployment such as use cases, static and dynamic diagrams, patterns, and frameworks. This course includes a semester long project starting with requirements and culminating with deployment. Credit not granted for both CMP SCI 4520 and CMP SCI 5520.

**CMP SCI 4610 Database Management Systems: 3 semester hours**

Prerequisites: CMP SCI 2750 and MATH 3000. Focuses on database theory and applications, with emphasis on the relational model. Topics include database design, modeling, file systems, indexing, integrity constraints, relational algebra, normalization, transaction processing, and concurrency control. Students are exposed to emerging DBMS technologies and applications. Several programming projects will be required, using a popular SQL server.

**CMP SCI 4730 Computer Networks And Communications: 3 semester hours**

Prerequisites: CMP SCI 2750 and MATH 1320. Covers communication systems in the context of the ISO and TCP/IP standards for systems interconnection. Covers various types of networks including wide area networks, local area networks, and fiber optic networks.

**CMP SCI 4760 Operating Systems: 3 semester hours**

Prerequisites: CMP SCI 2700, CMP SCI 2750, and CMP SCI 3130. Covers the structure of a generic operating system, considering in detail the algorithms for interprocess communication, process scheduling, resource management, memory management, file systems, and device management. Presents examples from contemporary operating systems. This course also requires practical projects implemented within a modern operating system or simulator environment.

**CMP SCI 4780 Computer and Network Security: 3 semester hours**

Prerequisite: CMP SCI 2750. Covers major issues relevant to providing security in a networked environment. The course includes algorithms and protocols for secure communications between computers.

**CMP SCI 4880 Individual Studies: 1-3 semester hours**

Prerequisites: Consent of the instructor. This course allows a student to pursue individual studies under the supervision of a faculty member. It may include development of a software project. The course may be repeated for credit.

**CMP SCI 4890 Topics In Computer Science: 3 semester hours**

Prerequisites: Consent of the Instructor. Covers a special topic in computer science to be determined by recent developments in the field and the interests of the instructor. Course may be repeated for credit.

**CMP SCI 5010 Enterprise Web Development: 3 semester hours**

Prerequisite: CMP SCI 4010 or consent of instructor. Covers design and implementation issues for enterprise web development, and some popular advanced technologies. Topics include MVC and persistence frameworks, such as Spring and Hibernate. Other topics may include Java Web services, EJB, messaging standards such as JMS, and Java EE design patterns. Students will develop enterprise-level web application projects using the.

**CMP SCI 5030 Intelligent Web: 3 semester hours**

Prerequisite: Consent of the instructor. Covers the application of artificial intelligence and other modern techniques to help construct, navigate, and experience the Web. Topics may include retrieval models, classification, mining, association, topology, and indexing algorithms such as PageRank and HITS. Topics are the same as CMP SCI 4030 but material is covered at a greater depth and additional projects are required. Credit cannot be earned for both CMP SCI 4030 and CMP SCI 5030.

**CMP SCI 5130 Advanced Data Structures And Algorithms: 3 semester hours**

Prerequisite: An elementary course in analysis of algorithms or consent of the instructor. This course covers analysis of time and space complexity of iterative and recursive algorithms along with performance bounds, design of data structures for efficient performance, sorting algorithms, probabilistic algorithms, divide and conquer strategies, various algorithms on graphs, and np completeness.

**CMP SCI 5320 Introduction To Evolutionary Computation: 3 semester hours**

Prerequisites: CMP SCI 4300 or consent of instructor. This course introduces the concepts of nature-inspired problem solving population dynamics, Darwinian selection, and inheritance. It discusses problems applicable to evolutionary algorithms, overviews the existing models and instances, and analyzes specific instances such as genetic algorithms and genetic programming.

**CMP SCI 5340 Machine Learning: 3 semester hours**

Prerequisites: Consent of instructor. Provides an introduction to machine learning in the context of applications such as data mining, natural language processing and adaptive computer systems. Reviews several supervised, unsupervised, and reinforcement machine learning techniques such as naive Bayes networks, clustering and decision trees. Selected concepts in computational learning theory may also be covered. Topics are the same as CMP SCI 4340 but material is covered at a greater depth and additional projects are required. Credit cannot be granted for both CMP SCI 4340 and CMP SCI 5340.

**CMP SCI 5420 Digital Image Processing: 3 semester hours**

Prerequisites: Consent of instructor. Covers topics in image analysis and visual perception. Students learn data structures and algorithms for image processing, region and texture analysis, image filtering, edge detection, contour following, and image enhancement in both spatial and frequency domain. Other topics may include color processing, coding for storage, retrieval, transmission, and image restoration. Topics are the same as CMP SCI 4420 but material is covered at a greater depth and additional projects are required. Credit cannot be granted for both CMP SCI 4420 and CMP SCI 5420.



**CMP SCI 5500 Software Engineering: 3 semester hours**

Prerequisite: Consent of instructor. Introduces software engineering as a discipline, discusses stages of the software life cycle, compares development models such as waterfall, prototyping and incremental/iterative, covers requirements analysis, effort and cost estimation, compares structured and object-oriented analysis and design methods. Discusses verification/validation, quality assurance, software reliability, testing methods, maintenance, documentation, project management and team structure, metrics, and available tools.

**CMP SCI 5520 Object Oriented Analysis And Design: 3 semester hours**

Prerequisite: Consent of the instructor. Covers object-oriented development, illustrated with visual modeling language and following an agile process. Discusses elements of analysis, requirements, design, implementation, and deployment such as use cases, static and dynamic diagrams, patterns and frameworks. A semester long project, starting with requirements and culminating with deployment, is required. Topics are the same as CMP SCI 4520 but material is covered at a greater depth and additional projects are required. Credit not granted for both CMP SCI 4520 and CMP SCI 5520.

**CMP SCI 5700 Computer Systems: 3 semester hours**

Prerequisite: Background in computer organization or architecture or consent of the instructor. This course focuses on parallel computing architectures, including RISC, pipelining, vector processing, SIMD, MIMD, and array processing. It introduces different memory and I/O subsystems, hardware description languages, and it demonstrates performance enhancement using different architectures studied.

**CMP SCI 5740 High Performance Computing: 3 semester hours**

Prerequisite: Consent of the instructor. Introduces algorithms for multiprocessor and multi-core architectures. Students learn the models of modern parallel computation and techniques to take advantage of parallel architectures for distributed and shared memory multi-processor architectures.

**CMP SCI 5880 Computer Science Independent Project: 1-3 semester hours**

Prerequisites: Graduate standing and consent of instructor This course offers the student an opportunity to work on an advisor-supervised project, individually or in a group. A student may repeat the course for up to 6 credit hours total, but at most 6 hours can be accumulated for CMP SCI 5880 and CMP SCI 6900.

**CMP SCI 5890 Topics In Computer Science: 1-3 semester hours**

Prerequisites: Graduate standing and consent of the instructor This course offers various topics not offered on a regular basis. It may be taken more than once for credit with the consent of the department.

**CMP SCI 5900 Graduate Internship in Computer Science: 3 semester hours**

Prerequisites: Consent of Advisor The internship provides for a student to attain field experience in an organization related to Computer Science. A student is employed off-campus for an assignment of at least 320 hours working on a project as directed by his/her supervisor in the host organization. The project should be approved by the student's academic advisor, or a designated faculty member, who will monitor the student's progress. The student is responsible for having the project supervisor at the company establish contact with the academic advisor to establish schedule and goals, and a procedure to evaluate the goals. The student will submit a written report to the advisor at the end of internship. The course cannot be repeated for credit. Students completing this course will be allowed only up to three hours of Independent Study (CMP SCI 5880).

**CMP SCI 6320 Advances In Evolutionary Computation: 3 semester hours**

Prerequisite: CMP SCI 5320 or consent of instructor. This course focuses on some advanced topics in Genetic and Evolutionary Computation, both theoretical and practical. Topics may include competent genetic algorithms, learning classifier systems, and Markov models. A substantial part of the course will be based on recent literature. Projects may involve literature research, developing specific applications or implementing a specific model.

**CMP SCI 6340 Genetic Programming: 3 semester hours**

Prerequisite: CMP SCI 5320 or consent of instructor. This course provides an in-depth exploration of Genetic programming, including advanced concepts such as scalability, evolution of modularity and regularity, and constrained evolution with CGP, STGP, or CFG-based GP. It may be reading, research, or application oriented.

**CMP SCI 6410 Topics In Computer Graphics: 3 semester hours**

Prerequisites: CMP SCI 4410 or consent of instructor This course covers various aspects of advanced graphics techniques, such as geometric modeling, rendering, shading, texturing, and computer animation. The course provides an in-depth study of recent advanced topics in computer graphics.

**CMP SCI 6420 Topics In Image Processing And Multimedia: 3 semester hours**

Prerequisites: CMP SCI 5400, CMP SCI 5420 or consent of instructor. This course covers new developments in digital image processing, computer vision, and multimedia. Topics to be covered may include image databases, object tracking, and large-scale data visualization.

**CMP SCI 6740 High Performance Computing: 3 semester hours**

Prerequisites: CMP SCI 5740, or Graduate standing and consent of instructor. Looks at the current state of the art in parallel and distributed computing, with emphasis on programming in such environments. Introduction to the state of the art in code optimization and grid computing environments.

**CMP SCI 6900 Thesis: 1-6 semester hours**

Prerequisites: Completion of at least 12 graduate credits and approval of research topic by thesis advisor. This course is designed for those students intending to present a thesis as part of their M.S. program. At most 6 hours can be accumulated for CMP SCI 5880 and CMP SCI 6900.

## Courses

**CMP SCI 1010 Introduction To Computers And The Internet: 3 semester hours**

Prerequisites: None. Covers basic concepts and components of a PC: survey of popular applications including e-mail, word processors, spreadsheets, overview of the Internet, popular browsers, World Wide Web, search engines, multimedia, web pages, security, and privacy. Credit not granted for both CMP SCI 1010 and INFSYS 1800.

**CMP SCI 1011 Introduction to the Internet and World Wide Web: 3 semester hours**

Intended for any student wishing to utilize the Internet and World Wide Web more effectively. Topics include networking basics, the Internet and World Wide Web, browsers, search engines, Web Services, utilities, tools, online privacy and security. Students will learn to develop a personal web page using skills acquired in the course.



**CMP SCI 1012 Learning to Program Using Virtual Worlds: 3 semester hours**

Introduces modern programming principles without requiring the knowledge of a traditional programming language. Instead, this course utilizes a novel graphical approach that enables the student to create, populate, and manipulate virtual 3-dimensional worlds which resemble video games. The development of these worlds allows students to gain direct experience and skills in using computers to solve problems. Students will create worlds of varying complexity.

**CMP SCI 1250 Introduction To Computing: 3 semester hours**

Prerequisites: MATH 1030 with B-or better, or MATH 1100, or MATH 1800. Provides an introduction to the concepts of computation, problem solving, and computer systems. Covers fundamental programming constructs, basic data types, and modularization using a modern high level language. Problem solving skills are developed through a progression of programming projects.

**CMP SCI 2250 Programming And Data Structures: 3 semester hours**

Prerequisite: CMP SCI 1250. Continuation of CMP SCI 1250. Discusses properties and implementation of abstract data types such as lists, trees, stacks and queues. Introduces procedural and class abstraction, basic program architecture, use of interfaces, modular programming, and file processing.

**CMP SCI 2261 Object-Oriented Programming: 3 semester hours**

Prerequisite: CMP SCI 2250. Introduces object-oriented concepts, terminology, and notation (UML) using Java. Covers encapsulation, classes, objects, inheritance, and the use of class libraries. Additional topics may include graphical user interfaces, applets, and related tools and technologies.

**CMP SCI 2700 Computer Organization and Architecture: 3 semester hours**

Prerequisite: CMP SCI 2250. Introduces details of computer systems from architectural and organizational points of view. Covers data representation, basic digital logic circuits, memory types and hierarchies, I/O and storage devices, CPU architectures such as RISC, CISC, parallel, and multi-core.

**CMP SCI 2750 System Programming and Tools: 3 semester hours**

Prerequisites: CMP SCI 2250. Covers systems programming, scripting, libraries, utilities, and development tools. Additional programming topics include piping, binary files, exception handling, command-line arguments and symbolic debugging. This course also explores tools available in the Unix/Linux environments.

**CMP SCI 3010 Web Programming: 3 semester hours**

Prerequisite: CMP SCI 2250 Provides a survey of current Web technologies including markup languages (such as HTML/XHTML, CSS, XML), client side languages (such as JavaScript), server side languages (such as PERL, PHP), and Web protocols. This course requires client-server computing projects.

**CMP SCI 3130 Design And Analysis Of Algorithms: 3 semester hours**

Prerequisites: CMP SCI 2250, MATH 1320, MATH 2450, and MATH 3000. Addresses the design and analysis of fundamental algorithms in computer science. Studies basic sorting algorithms, priority queues, order statistics, search trees, and hash tables. Analysis techniques may involve time and space complexity analysis of both iterative and recursive algorithms, analysis of algorithm correctness, and amortized complexity analysis. Additional topics may include data compression, string manipulation, greedy algorithms, dynamic programming, and graph traversal.

**CMP SCI 3710 Assembly Language Programming: 3 semester hours**

Prerequisite: CMP SCI 2700. Explores machine architecture concepts and principles through a study of assembly language programming. Topics covered include integer and floating point arithmetic, procedures, conditional processing, strings, macros, and interfaces to high level languages. Programming projects using a commercially available assembly language will be required.

**CMP SCI 4010 Advanced Web Development with Java: 3 semester hours**

Prerequisites: CMP SCI 2261 and CMP SCI 3010, or consent of instructor. Covers more advanced Java topics, along with related concepts and technologies for Web development. Topics may include database connectivity, multi threading, security, networking, MVC pattern, testing and source control for Java applications, and server-side topics such as servlets and web servers.

**CMP SCI 4030 Introduction to Intelligent Web: 3 semester hours**

Prerequisites: CMP SCI 2261, CMP SCI 2750, CMP SCI 3010, and CMP SCI 3130. Covers the application of artificial intelligence and other modern techniques to help construct, navigate, and experience the Web. Topics may include retrieval models, classification, mining, association, topology, and indexing algorithms such as PageRank and HITS. Credit cannot be earned for both CMP SCI 4030 and CMP SCI 5030.

**CMP SCI 4140 Theory Of Computation: 3 semester hours**

Prerequisite: CMP SCI 3130. Provides an introduction to the theory of computation. Describes basic computational models, such as finite state machines, pushdown automata, Turing machines and grammars. Covers the concept of nondeterministic computation and the relationships between different computational models. Discusses decidability, reducibility, and classification of problems into complexity classes based on their time and space complexity, such as P, NP, and PSPACE.

**CMP SCI 4250 Programming Languages: 3 semester hours**

Prerequisite: CMP SCI 2261 and CMP SCI 3010 or Graduate Standing. Studies the principles, approaches, and trade-offs in modern programming languages, including a comparative study of syntax, semantics, and pragmatics. Examines major programming paradigms: object-oriented, imperative, functional and logic.

**CMP SCI 4280 Program Translation: 3 semester hours**

Prerequisites: CMP SCI 2700, CMP SCI 2750, CMP SCI 3130 and CMP SCI 4250. Focuses on methods, techniques, and mechanisms used to create the abstraction from high level programming to machine level execution. This course also requires an individual, semester long project.

**CMP SCI 4300 Introduction To Artificial Intelligence: 3 semester hours**

Prerequisites: CMP SCI 2261, CMP SCI 2750 and CMP SCI 3130. Provides an introduction to artificial intelligence. The list of topics may include search, planning, knowledge-based reasoning, probabilistic inference, machine learning, natural language processing, and practical applications.

**CMP SCI 4340 Introduction to Machine Learning: 3 semester hours**

Prerequisites: CMP SCI 2261, CMP SCI 2750 and CMP SCI 3130. Provides an introduction to machine learning in the context of applications such as data mining, natural language processing, and adaptive computer systems. The course reviews several supervised, unsupervised, and reinforcement machine learning techniques such as naive Bayes networks, clustering, and decision trees. Selected concepts in computational learning theory may also be covered. Credit cannot be granted for both CMP SCI 4340 and CMP SCI 5340.

**CMP SCI 4410 Computer Graphics: 3 semester hours**

Prerequisites: CMP SCI 2750 and CMP SCI 3130. Covers the theoretical foundation and algorithms for computer graphics. Students learn the basics of graphics programming for modeling, rendering, and animation of 2D and 3D objects. Vector and raster graphics, and different display devices are also discussed. A brief discussion of special graphics hardware, such as GPU, may be presented.

**CMP SCI 4420 Introduction to Digital Image Processing: 3 semester hours**

Prerequisites: CMP SCI 2750 and CMP SCI 3130. Focuses on image analysis and visual perception. Students learn data structures and algorithms for image processing, region and texture analysis, image filtering, edge detection, contour following, and image enhancement in both spatial and frequency domain. Other topics may include color processing, coding for storage, retrieval, transmission, and image restoration. Credit cannot be granted for both CMP SCI 4420 and CMP SCI 5420.

**CMP SCI 4500 Introduction to the Software Profession: 3 semester hours**

Prerequisite: CMP SCI 2261, CMP SCI 2700, CMP SCI 2750, CMP SCI 3010, and CMP SCI 3130. Focuses on software development and on the skills required for success in the software profession. Topics related to software development may include software process, models and views, software architectures, documentation, and testing strategies. Topics related to the profession may include ethics, licensing, copyright, trademarks, and professional conduct. Individual and group projects, research, and presentations may be required in this capstone course.

**CMP SCI 4520 Introduction to Object-Oriented Analysis And Design: 3 semester hours**

Prerequisite: CMP SCI 2261, CMP SCI 3010, CMP SCI 3130. Covers object-oriented development, illustrated with a visual modeling language and following an agile process. Discusses elements of analysis, requirements, design, implementation, and deployment such as use cases, static and dynamic diagrams, patterns, and frameworks. This course includes a semester long project starting with requirements and culminating with deployment. Credit not granted for both CMP SCI 4520 and CMP SCI 5520.

**CMP SCI 4610 Database Management Systems: 3 semester hours**

Prerequisites: CMP SCI 2750 and MATH 3000. Focuses on database theory and applications, with emphasis on the relational model. Topics include database design, modeling, file systems, indexing, integrity constraints, relational algebra, normalization, transaction processing, and concurrency control. Students are exposed to emerging DBMS technologies and applications. Several programming projects will be required, using a popular SQL server.

**CMP SCI 4730 Computer Networks And Communications: 3 semester hours**

Prerequisites: CMP SCI 2750 and MATH 1320. Covers communication systems in the context of the ISO and TCP/IP standards for systems interconnection. Covers various types of networks including wide area networks, local area networks, and fiber optic networks.

**CMP SCI 4760 Operating Systems: 3 semester hours**

Prerequisites: CMP SCI 2700, CMP SCI 2750, and CMP SCI 3130. Covers the structure of a generic operating system, considering in detail the algorithms for interprocess communication, process scheduling, resource management, memory management, file systems, and device management. Presents examples from contemporary operating systems. This course also requires practical projects implemented within a modern operating system or simulator environment.

**CMP SCI 4780 Computer and Network Security: 3 semester hours**

Prerequisite: CMP SCI 2750. Covers major issues relevant to providing security in a networked environment. The course includes algorithms and protocols for secure communications between computers.

**CMP SCI 4880 Individual Studies: 1-3 semester hours**

Prerequisites: Consent of the instructor. This course allows a student to pursue individual studies under the supervision of a faculty member. It may include development of a software project. The course may be repeated for credit.

**CMP SCI 4890 Topics In Computer Science: 3 semester hours**

Prerequisites: Consent of the Instructor. Covers a special topic in computer science to be determined by recent developments in the field and the interests of the instructor. Course may be repeated for credit.

**CMP SCI 5010 Enterprise Web Development: 3 semester hours**

Prerequisite: CMP SCI 4010 or consent of instructor. Covers design and implementation issues for enterprise web development, and some popular advanced technologies. Topics include MVC and persistence frameworks, such as Spring and Hibernate. Other topics may include Java Web services, EJB, messaging standards such as JMS, and Java EE design patterns. Students will develop enterprise-level web application projects using the.

**CMP SCI 5030 Intelligent Web: 3 semester hours**

Prerequisite: Consent of the instructor. Covers the application of artificial intelligence and other modern techniques to help construct, navigate, and experience the Web. Topics may include retrieval models, classification, mining, association, topology, and indexing algorithms such as PageRank and HITS. Topics are the same as CMP SCI 4030 but material is covered at a greater depth and additional projects are required. Credit cannot be earned for both CMP SCI 4030 and CMP SCI 5030.

**CMP SCI 5130 Advanced Data Structures And Algorithms: 3 semester hours**

Prerequisite: An elementary course in analysis of algorithms or consent of the instructor. This course covers analysis of time and space complexity of iterative and recursive algorithms along with performance bounds, design of data structures for efficient performance, sorting algorithms, probabilistic algorithms, divide and conquer strategies, various algorithms on graphs, and np completeness.

**CMP SCI 5320 Introduction To Evolutionary Computation: 3 semester hours**

Prerequisites: CMP SCI 4300 or consent of instructor. This course introduces the concepts of nature-inspired problem solving population dynamics, Darwinian selection, and inheritance. It discusses problems applicable to evolutionary algorithms, overviews the existing models and instances, and analyzes specific instances such as genetic algorithms and genetic programming.

**CMP SCI 5340 Machine Learning: 3 semester hours**

Prerequisites: Consent of instructor. Provides an introduction to machine learning in the context of applications such as data mining, natural language processing and adaptive computer systems. Reviews several supervised, unsupervised, and reinforcement machine learning techniques such as naive Bayes networks, clustering and decision trees. Selected concepts in computational learning theory may also be covered. Topics are the same as CMP SCI 4340 but material is covered at a greater depth and additional projects are required. Credit cannot be granted for both CMP SCI 4340 and CMP SCI 5340.

**CMP SCI 5420 Digital Image Processing: 3 semester hours**

Prerequisites: Consent of instructor. Covers topics in image analysis and visual perception. Students learn data structures and algorithms for image processing, region and texture analysis, image filtering, edge detection, contour following, and image enhancement in both spatial and frequency domain. Other topics may include color processing, coding for storage, retrieval, transmission, and image restoration. Topics are the same as CMP SCI 4420 but material is covered at a greater depth and additional projects are required. Credit cannot be granted for both CMP SCI 4420 and CMP SCI 5420.

**CMP SCI 5500 Software Engineering: 3 semester hours**

Prerequisite: Consent of instructor. Introduces software engineering as a discipline, discusses stages of the software life cycle, compares development models such as waterfall, prototyping and incremental/iterative, covers requirements analysis, effort and cost estimation, compares structured and object-oriented analysis and design methods. Discusses verification/validation, quality assurance, software reliability, testing methods, maintenance, documentation, project management and team structure, metrics, and available tools.

**CMP SCI 5520 Object Oriented Analysis And Design: 3 semester hours**

Prerequisite: Consent of the instructor. Covers object-oriented development, illustrated with visual modeling language and following an agile process. Discusses elements of analysis, requirements, design, implementation, and deployment such as use cases, static and dynamic diagrams, patterns and frameworks. A semester long project, starting with requirements and culminating with deployment, is required. Topics are the same as CMP SCI 4520 but material is covered at a greater depth and additional projects are required. Credit not granted for both CMP SCI 4520 and CMP SCI 5520.

**CMP SCI 5700 Computer Systems: 3 semester hours**

Prerequisite: Background in computer organization or architecture or consent of the instructor. This course focuses on parallel computing architectures, including RISC, pipelining, vector processing, SIMD, MIMD, and array processing. It introduces different memory and I/O subsystems, hardware description languages, and it demonstrates performance enhancement using different architectures studied.

**CMP SCI 5740 High Performance Computing: 3 semester hours**

Prerequisite: Consent of the instructor. Introduces algorithms for multiprocessor and multi-core architectures. Students learn the models of modern parallel computation and techniques to take advantage of parallel architectures for distributed and shared memory multi-processor architectures.

**CMP SCI 5880 Computer Science Independent Project: 1-3 semester hours**

Prerequisites: Graduate standing and consent of instructor This course offers the student an opportunity to work on an advisor-supervised project, individually or in a group. A student may repeat the course for up to 6 credit hours total, but at most 6 hours can be accumulated for CMP SCI 5880 and CMP SCI 6900.

**CMP SCI 5890 Topics In Computer Science: 1-3 semester hours**

Prerequisites: Graduate standing and consent of the instructor This course offers various topics not offered on a regular basis. It may be taken more than once for credit with the consent of the department.

**CMP SCI 5900 Graduate Internship in Computer Science: 3 semester hours**

Prerequisites: Consent of Advisor The internship provides for a student to attain field experience in an organization related to Computer Science. A student is employed off-campus for an assignment of at least 320 hours working on a project as directed by his/her supervisor in the host organization. The project should be approved by the student's academic advisor, or a designated faculty member, who will monitor the student's progress. The student is responsible for having the project supervisor at the company establish contact with the academic advisor to establish schedule and goals, and a procedure to evaluate the goals. The student will submit a written report to the advisor at the end of internship. The course cannot be repeated for credit. Students completing this course will be allowed only up to three hours of Independent Study (CMP SCI 5880).

**CMP SCI 6320 Advances In Evolutionary Computation: 3 semester hours**

Prerequisite: CMP SCI 5320 or consent of instructor. This course focuses on some advanced topics in Genetic and Evolutionary Computation, both theoretical and practical. Topics may include competent genetic algorithms, learning classifier systems, and Markov models. A substantial part of the course will be based on recent literature. Projects may involve literature research, developing specific applications or implementing a specific model.

**CMP SCI 6340 Genetic Programming: 3 semester hours**

Prerequisite: CMP SCI 5320 or consent of instructor. This course provides an in-depth exploration of Genetic programming, including advanced concepts such as scalability, evolution of modularity and regularity, and constrained evolution with CGP, STGP, or CFG-based GP. It may be reading, research, or application oriented.

**CMP SCI 6410 Topics In Computer Graphics: 3 semester hours**

Prerequisites: CMP SCI 4410 or consent of instructor This course covers various aspects of advanced graphics techniques, such as geometric modeling, rendering, shading, texturing, and computer animation. The course provides an in-depth study of recent advanced topics in computer graphics.

**CMP SCI 6420 Topics In Image Processing And Multimedia: 3 semester hours**

Prerequisites: CMP SCI 5400, CMP SCI 5420 or consent of instructor. This course covers new developments in digital image processing, computer vision, and multimedia. Topics to be covered may include image databases, object tracking, and large-scale data visualization.

**CMP SCI 6740 High Performance Computing: 3 semester hours**

Prerequisites: CMP SCI 5740, or Graduate standing and consent of instructor. Looks at the current state of the art in parallel and distributed computing, with emphasis on programming in such environments. Introduction to the state of the art in code optimization and grid computing environments.

**CMP SCI 6900 Thesis: 1-6 semester hours**

Prerequisites: Completion of at least 12 graduate credits and approval of research topic by thesis advisor. This course is designed for those students intending to present a thesis as part of their M.S. program. At most 6 hours can be accumulated for CMP SCI 5880 and CMP SCI 6900.

## Counselor Education



## Courses

### ***CNS ED 1400 Making A Career Choice: 3 semester hours***

Introduces students to career development theories and the career decision-making process. Students receive an overview of career development theory and learn how these theories pertain to the formulation of individual career plans. Self-knowledge of career interests, values, beliefs, aptitudes, and other factors are explored. Self-assessment and decision-making techniques learned in this class can be revisited throughout the life span. The seminar format allows for small group discussion of career-related issues and personal application of career development principles.

### ***CNS ED 3220 Counseling Individuals With Special Needs: 3 semester hours***

Prerequisite: TCH ED 3313 or equivalent, or consent of instructor. A course emphasizing counseling skills for individuals who plan to work with people with disabilities. Emphasis is placed on using counseling strategies with school-age children with disabilities.

### ***CNS ED 4310 Human Relations Skills: 3 semester hours***

Prerequisite: Junior or Senior level standing or consent of instructor. A course emphasizing the development of specific skills in human relationships to help facilitate effective interaction among individuals and groups in the helping professions. Readings, discussion and skill-building exercise will be used to develop various human relations skills.

### ***CNS ED 4320 Occupational And Education Information: 3 semester hours***

Prerequisites: Junior or senior level standing or consent of instructor. This course is a basic introduction to the nature and use of occupational and educational information, including the characteristics and educational requirements of occupations as well as the history of and current occupation organizing systems.

### ***CNS ED 6000 Personal and Professional Development in Counseling: 3 semester hours***

Prerequisites: Provisional Acceptance to the Counseling Program or Consent of Instructor. This course provides an in-depth view of the professional counseling field. Attention is focused on the development of the helping relationship, including a review of research on factors which influence helping processes and rapport building, a development of skills used in the counseling process, and increased awareness of how students' values, beliefs, and behaviors are related to counselor effectiveness.

### ***CNS ED 6010 Theories of Counseling: 3 semester hours***

Prerequisite: CNS ED 6000. This course will explore the philosophical foundations of counseling theory. The major constructs of contemporary counseling approaches will be discussed and the practical applications of these theories will be analyzed.

### ***CNS ED 6020 Ethical and Professional Issues in Counseling: 3 semester hours***

Prerequisites: CNS ED 6000. Ethical, legal, and professional issues related to counseling are addressed. Ethical dilemmas in the provision of counseling services to individuals, couples, families, and groups are defined. Specific ethical codes of professional organizations are examined.

### ***CNS ED 6030 Foundations for Multicultural Counseling: 3 semester hours***

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010. This course will focus on: (1) reviewing knowledge and research in the area of multicultural counseling, (2) developing and/or enhancing skills useful in counseling with individuals from minority populations, and (3) developing levels of personal awareness about stereotypes, and learning how feelings and attitudes about these may impact counseling with individuals from minority populations.

### ***CNS ED 6040 Group Procedures in Counseling: 3 semester hours***

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010 and CNS ED 6270 or CNS ED 6370. This course examines the process dynamics of groups including group development, leadership, norms and therapeutic factors. Group counseling theories and approaches used for other group work including: skills, personal growth, support, vocational, and developmental guidance groups are included. Knowledge and skills of how to facilitate therapeutic groups are included. Students will be required to be participant-observers or facilitators of a group outside of class time.

### ***CNS ED 6050 Individual Inventory: 3 semester hours***

Prerequisite: ED REM 6709. Uses of educational and psychological appraisal techniques in counseling, develops counselor's abilities in assisting clients toward self-awareness through the use of test and non-test data. Ethical practices in the use of tests and the maintenance of personnel records are stressed.

### ***CNS ED 6070 Psychopathology & Diagnosis: 3 semester hours***

Prerequisites: Graduate Standing. Same As ED PSY 6113. Covers etiology, assessment and diagnosis of mental disorders using contemporary diagnostic systems. Course materials and assignment address the dynamics of adjustment and treatment implication for counselors, school psychologists, and others in the helping professions.

### ***CNS ED 6200 Foundations of School Guidance: 3 semester hours***

Prerequisites: CNS ED 6000 with a grade of B or better. The purpose of this course is to give students a foundation for understanding the history, philosophy, and development of school guidance programs. The role functions of the school counselor within a developmental, comprehensive program are examined, along with communication skills necessary for consultation with students, parents, school support staff, and resource people in the community nonacademic needs.

### ***CNS ED 6220 Current Issues In Counseling Special Needs Populations: 3 semester hours***

Prerequisite: Graduate Standing Designed to analyze relevant literature and to provide communication skills training for those professionals in school settings who work with individuals with special needs. The characteristics and social and emotional needs of this special population will be discussed as well as the impact of special needs on the family system.

### ***CNS ED 6270 School Counseling Practicum: 3 semester hours***

Prerequisites: CNS ED 6000 and CNS ED 6010 (both courses with a grade of B- or better) or consent of instructor. One hundred clock hours of supervised practice in counseling to provide the opportunity for students to pragmatically integrate and process materials, theories, techniques, and methodologies as they are applied in the counseling profession with emphasis on school counseling.



**CNS ED 6280 School Counseling Field Experience: 1-6 semester hours**

Prerequisites: CNS ED 6270 with a grade of B or better and consent of instructor. A 100 clock hour field experience for each semester-credit-hour of enrollment. Students will be closely supervised under the direction of a graduate faculty member. Students must demonstrate counseling competencies and skillful ethical practice. Students will receive 1.5 contact hours of group supervision weekly by a graduate faculty member and 1 contact hour of individual supervision weekly by field experience site supervisor during terms of enrollment. Course may be repeated for a maximum of 6 semester-credit-hours.

**CNS ED 6300 Foundations Of Clinical Mental Health Counseling: 3 semester hours**

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010. A survey of counseling in a variety of mental health settings. Introduction to the basic philosophical, historical, and psychological foundations of clinical mental health counseling. Designed to acquaint the student with the foundations and roles of the professional counselor in various community and agency settings.

**CNS ED 6370 Clinical Mental Health Counseling Practicum I: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010 (both courses with a grade of B- or better) or consent of the instructor. One hundred clock hours of supervised practice in counseling to provide the opportunity for students to pragmatically integrate and process materials, theories, techniques, and methodologies as they are applied in the counseling profession, focusing on clinical mental health counseling.

**CNS ED 6375 Clinical Mental Health Counseling Practicum II: 3 semester hours**

Prerequisites: CNS ED 6000, CNS ED 6010, and CNS ED 6370 (all courses with a grade of B- or better or S, as appropriate) or consent of instructor. One hundred clock hours of supervised advanced practice in counseling to provide the opportunity for students to continue to integrate and process theories, techniques, and methods as they are applied to the professional practice of counseling, with an emphasis on clinical mental health counseling.

**CNS ED 6380 Clinical Mental Health Counseling Field Experience: 1-6 semester hours**

Prerequisites: CNS ED 6370 and consent of instructor. A 100 clock hour field experience for each semester-credit-hour of enrollment. Students will be closely supervised under the direction of a graduate faculty member. Students must demonstrate counseling competencies and skillful ethical practice. Students will receive 1.5 contact hours of group supervision weekly by a graduate faculty member and 1 contact hour of individual supervision weekly by a field experience site supervisor during terms of enrollment. Course may be repeated for a maximum of 6 semester-credit-hours.

**CNS ED 6400 Career Information and Development: 3 semester hours**

Prerequisites: CNS ED 6000 with a grade of B or better and graduate standing. Emphasis is on the nature of the changing labor market and the impact on personal, social, economic, career, and educational aspects of individuals and society. Use of occupational and educational information systems and resources to assist with career decisions are examined. The needs of culturally diverse populations are discussed. Use of career and labor market information and programs such as computer technology to access up-to-date career and labor market information is explored. Techniques and methods of career counseling are discussed. Various theories of career development and career choice will be examined.

**CNS ED 6404 Seminar: 1-10 semester hours**

Prerequisite: Graduate Standing.

**CNS ED 6410 Advanced Career Development: 3 semester hours**

Prerequisites: CNS ED 6400 or consent of instructor Emphasis is on current theories of career development, career choice, and techniques and methods of career counseling. Issues concerning education and training, work, leisure, the family, life roles, and culturally diverse populations are studied. The role of career theory in planning, development, and delivery of a career development program is explored.

**CNS ED 6420 Career Assessment In Counseling And Rehabilitation: 3 semester hours**

Prerequisites: CNS ED 6050 and CNS ED 6400 or consent of instructor This course provides an in-depth and specialized look at the educational and psychological assessment techniques used in career counseling, especially the assessment of career interests, work values, work environment, work skills, work samples, career development stages, career maturity, career decision making, and career beliefs. Issues of using computers in the delivery of career development services will be discussed.

**CNS ED 6497 Problems: 1-10 semester hours****CNS ED 6500 Introduction to Systems Theory for Couples and Family Counseling: 3 semester hours**

Prerequisite: CNS ED 6010 or Consent of Instructor. This course is an introduction to relationship theory as applied to couples and family counseling. General systems theory, and social constructivism theory are reviewed. Students learn relationship interventions and beginning couple and family counseling techniques. Ethical, professional, and legal issues related to couples and family counseling are addressed.

**CNS ED 6510 Marriage Counseling And Enrichment: 3 semester hours**

Prerequisite: CNS ED 6500 Or Consent Of Instructor. This Course Focuses On The Theory And Techniques Of Marital Or Couples Counseling And Enrichment. Models And Methods For Prevention And Treatment Of Relationship Dysfunction Are Explored. Relationship Developmental Issues Are Addressed. Students Are Challenged To Develop The Critical Skills Necessary To Be Effective Marriage Counselors And Marital-Life Educators.

**CNS ED 6520 Family Counseling: 3 semester hours**

Prerequisite: CNS ED 6500 and CNS ED 6270, or CNS ED 6370, or consent of instructor. This course offers an in-depth analysis of strategic, structural, experiential, communications, behavioral, and psychodynamic approaches to systems change and family counseling. The range of techniques and applied practices evolving from each orientation are explored as are normal and dysfunctional family processes. Various counseling modalities, such as individual, concurrent, collaborative, conjoint, group, intergenerational, and networking are also considered.

**CNS ED 6600 Theories and Techniques of Counseling Children and Adolescents: 3 semester hours**

Prerequisites: CNS ED 6000, CNS ED 6010 (with a grade of B or better in both courses) or permission of instructor. This course focuses on counseling theories and their applicability to the developmental special concerns of children and adolescents including child-at risk issues such as: abuse, suicide, divorce, and death and dying. Individual, group, and family intervention techniques and consultation skills will be emphasized, as well as legal and ethical considerations for counselors. Strategies presented can be utilized in a variety of settings. Multicultural considerations are also addressed.

**CNS ED 6610 Introduction to Play Therapy: 3 semester hours**

Prerequisites: Graduate standing. Provides students a foundation for understanding the history, theories and application of play therapy. Working with children in both agency and school settings will be discussed as well as how play therapy skills can be incorporated into the student's developing theoretical framework. Can count towards the Registered Play Therapist Credential.

**CNS ED 6620 Advanced Play Therapy: 3 semester hours**

Prerequisites: CNS ED 6610. Helps students further develop their play therapy skills, especially in the area of client-centered play therapy. Examines the use of play therapy with traumatized children and aggressive children in both school and agency settings. Group play therapy and sand tray therapy as additional modalities will also be explored. Ethical and legal issues as well as supervision in play therapy will be emphasized. Can count towards the Registered Play Therapist credential.

**CNS ED 6700 Introduction To Addictive Behaviors And Addiction Counseling: 3 semester hours**

Prerequisites: CNS ED 6010 or Consent of Instructor Exploration of the theoretical foundations of contemporary approaches to such addictive behaviors as alcohol and drug abuse, smoking, compulsive gambling, and sexual addiction. The nature, etiology, prevention, and treatment of addictions are discussed and analyzed from a variety of theoretical perspectives. The applications of these specific theoretical models to various treatment settings are examined. Multicultural considerations are also addressed.

**CNS ED 6710 Advanced Strategies in Addictions Counseling: 3 semester hours**

Prerequisites: CNS ED 6700 or consent of instructor. Study of advanced, empirically supported counseling approaches and techniques for the treatment of addictive behaviors. An emphasis is placed on screening and assessment procedures and on matching interventions to individual client and community needs.

**CNS ED 6720 Counseling Individuals with Co-Occurring Disorders: 3 semester hours**

Prerequisites: CNS ED 6700 or consent of instructor. This course introduces the student to the special needs, concerns, and problems encountered when counseling clients who have co-occurring substance use and mental health problems. Subject areas include an overview of screening and assessment, evidence-based practices, counseling approaches and psychopharmacology for co-occurring disorders.

**CNS ED 6800 Rehabilitation Counseling: 3 semester hours**

Prerequisites: CNS ED 6000, CNS ED 6010, and CNS ED 6270 or CNS ED 6370, or consent of instructor. This course addresses: (a) the history of vocational rehabilitation; (b) specialty issues in rehabilitation counseling; (c) medical aspects of disability; (d) the rehabilitation process; (e) theories of rehabilitation; (f) the assessment process of individuals with disabilities; (g) the job placement and work adjustment process of individuals with disabilities; (h) ethical issues in rehabilitation counseling.

**CNS ED 6810 Integrating Religion And Spirituality In Counseling: 3 semester hours**

This course is for counselors and students wishing to develop the methods to integrate religion and spirituality in counseling and learn about counseling strategies for persons of various religious backgrounds, the link between health and religion, and ethics involved in the assessment and integration of religion and spirituality in practice.

**CNS ED 6820 Counseling Women Toward Empowerment: 3 semester hours**

Prerequisites: CNS ED 6000, CNS ED 6010, and CNS ED 6270 or CNS ED 6370, or consent of instructor. An introduction to Women's issues in counseling. Relational theory, healthy female development, and an overview of clinical issues most common to females will be presented.

**CNS ED 6830 Counseling African American Clients: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of instructor. This course is designed to promote an increased awareness and understanding of the psychological development and mental health needs of African American clients. This course also offers research-based theoretical strategies for counseling this diverse population.

**CNS ED 6840 Counseling Sexual Minorities: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of instructor. This course is focused on affirmative perspectives on lesbian, gay, bisexual, and transgender (LGBT) issues and populations. All of the major professional mental health organizations have formal ethical guidelines requiring non-discrimination with regard to LGBT populations and all of the organizations are active in promoting affirmative perspectives. Students will learn current perspectives in the fields of counseling and psychology on LGBT issues necessary for adequate practice or research in this area. A major focus will be on developing awareness and knowledge related to these populations.

**CNS ED 6850 Social Class and Poverty Issues In Counseling: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of the instructor. This course focuses on the experience of poor people in the United States. Specifically, the circumstances of poverty, the consequences of living in poverty (on behaviors, aspirations, relationships, education, and health including mental health), and the impact of poverty on the helping relationship will be addressed. Personal, social, and cultural aspects of poverty will be examined in both rural and urban settings. One objective of this course is to reduce the psychological distance between the poor client and the non-poor counselor. Included in this endeavor are specific attitude and techniques designed to maximize the quality of a counselor's work with poorer clients.

**CNS ED 6860 Human Sexuality in Counseling: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of instructor. This course will focus on integrating issues of human sexuality into the counseling process. The psycho-sexual development of the individual from birth throughout the life span will be discussed and compared to other developmental tasks at each age. Themes related to influences from family, culture, environment, socioeconomic, ethnic, and religious perceptions of sexuality will be integrated. The physiology of human sexual function will be addressed, including variations in sexual orientation and gender identity.

**CNS ED 7000 Advanced Theories And Foundations Of Counseling Psychology: 3 semester hours**

Prerequisites: Doctoral standing or instructor consent. A seminar on the discipline of counseling psychology, including its history, development, and current status. An important focus will be contemporary and emergent theories in the field.

**CNS ED 7010 Advanced Multicultural Counseling: 3 semester hours**

Prerequisites: CNS ED 6030 and doctoral standing or consent of instructor This advanced course addresses theories and research in multicultural counseling.

**CNS ED 7020 Seminar In Counseling Research: 3 semester hours**

Prerequisites: ED REM 6710, doctoral standing or consent of instructor  
The purpose of this course is to review and analyze current counseling research literature. Ethical issues will be addressed.

**CNS ED 7030 Counselor Education And Supervision: 3 semester hours**

Prerequisites: Master's degree in Counseling An introduction to clinical supervision in counseling. Theories, models, and research in supervision will be presented. Students will supervise master's level students in practicum and internship courses in counseling.

**CNS ED 7035 Counselor Education & Supervision Practicum: 3 semester hours**

Prerequisites: Admission to the Counseling Option in the Ed.D. or Ph.D. Program. Offers advanced training in counseling supervision. Students will supervise master's level students in practicum and internship courses in counseling. Students will be expected to maintain as assigned caseload of supervisees and attend three hours of weekly doctoral-level supervision.

**CNS ED 7400 Advanced Topics in School Counseling Leadership: 3 semester hours**

Prerequisites: Admission to the Counseling Option in the Ed.D. Program. Focuses on leadership roles and advanced skills for professional school counselors, school counseling supervisors, and evaluation strategies, and training and supervision strategies will be addressed, with a special emphasis on preventative and culturally sound interventions.

**CNS ED 7770 Doctoral Practicum: 3 semester hours**

Prerequisites: Doctoral Standing One hundred clock hours of on-campus doctoral-level supervised counseling practice. Students will counsel clients and will be introduced to teaching and supervising beginning counseling trainees in a clinical context. As a prerequisite to the Doctoral Internship, students will be expected to demonstrate competence in skills required of counselor educators and clinical supervisors. Students will receive 1.5 hours of group and 1 hour of individual supervision by a graduate faculty member.

**CNS ED 7780 Doctoral Internship: 1-6 semester hours**

Prerequisites: CNS ED 7770; ED REM 7771; ED REM 7781. A 100-hour field experience for each semester-credit hour of enrollment under the direction of a graduate faculty member. Students provide counseling services to clients at field sites, teach and supervise beginning counseling trainees, and conduct clinical research projects. Students are supervised by a graduate faculty member in two hours per week of group supervision, and they receive one hour per week of individual supervision by the field site supervisor.

## Courses

**CNS ED 1400 Making A Career Choice: 3 semester hours**

Introduces students to career development theories and the career decision-making process. Students receive an overview of career development theory and learn how these theories pertain to the formulation of individual career plans. Self-knowledge of career interests, values, beliefs, aptitudes, and other factors are explored. Self-assessment and decision-making techniques learned in this class can be revisited throughout the life span. The seminar format allows for small group discussion of career-related issues and personal application of career development principles.

**CNS ED 3220 Counseling Individuals With Special Needs: 3 semester hours**

Prerequisite: TCH ED 3313 or equivalent, or consent of instructor. A course emphasizing counseling skills for individuals who plan to work with people with disabilities. Emphasis is placed on using counseling strategies with school-age children with disabilities.

**CNS ED 4310 Human Relations Skills: 3 semester hours**

Prerequisite: Junior or Senior level standing or consent of instructor. A course emphasizing the development of specific skills in human relationships to help facilitate effective interaction among individuals and groups in the helping professions. Readings, discussion and skill-building exercise will be used to develop various human relations skills.

**CNS ED 4320 Occupational And Education Information: 3 semester hours**

Prerequisites: Junior or senior level standing or consent of instructor. This course is a basic introduction to the nature and use of occupational and educational information, including the characteristics and educational requirements of occupations as well as the history of and current occupation organizing systems.

**CNS ED 6000 Personal and Professional Development in Counseling: 3 semester hours**

Prerequisites: Provisional Acceptance to the Counseling Program or Consent of Instructor. This course provides an in-depth view of the professional counseling field. Attention is focused on the development of the helping relationship, including a review of research on factors which influence helping processes and rapport building, a development of skills used in the counseling process, and increased awareness of how students' values, beliefs, and behaviors are related to counselor effectiveness.

**CNS ED 6010 Theories of Counseling: 3 semester hours**

Prerequisite: CNS ED 6000. This course will explore the philosophical foundations of counseling theory. The major constructs of contemporary counseling approaches will be discussed and the practical applications of these theories will be analyzed.

**CNS ED 6020 Ethical and Professional Issues in Counseling: 3 semester hours**

Prerequisites: CNS ED 6000. Ethical, legal, and professional issues related to counseling are addressed. Ethical dilemmas in the provision of counseling services to individuals, couples, families, and groups are defined. Specific ethical codes of professional organizations are examined.

**CNS ED 6030 Foundations for Multicultural Counseling: 3 semester hours**

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010. This course will focus on: (1) reviewing knowledge and research in the area of multicultural counseling, (2) developing and/or enhancing skills useful in counseling with individuals from minority populations, and (3) developing levels of personal awareness about stereotypes, and learning how feelings and attitudes about these may impact counseling with individuals from minority populations.

**CNS ED 6040 Group Procedures in Counseling: 3 semester hours**

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010 and CNS ED 6270 or CNS ED 6370. This course examines the process dynamics of groups including group development, leadership, norms and therapeutic factors. Group counseling theories and approaches used for other group work including: skills, personal growth, support, vocational, and developmental guidance groups are included. Knowledge and skills of how to facilitate therapeutic groups are included. Students will be required to be participant-observers or facilitators of a group outside of class time.



**CNS ED 6050 Individual Inventory: 3 semester hours**

Prerequisite: ED REM 6709. Uses of educational and psychological appraisal techniques in counseling, develops counselor's abilities in assisting clients toward self-awareness through the use of test and non-test data. Ethical practices in the use of tests and the maintenance of personnel records are stressed.

**CNS ED 6070 Psychopathology & Diagnosis: 3 semester hours**

Prerequisites: Graduate Standing. Same As ED PSY 6113. Covers etiology, assessment and diagnosis of mental disorders using contemporary diagnostic systems. Course materials and assignment address the dynamics of adjustment and treatment implication for counselors, school psychologists, and others in the helping professions.

**CNS ED 6200 Foundations of School Guidance: 3 semester hours**

Prerequisites: CNS ED 6000 with a grade of B or better. The purpose of this course is to give students a foundation for understanding the history, philosophy, and development of school guidance programs. The role functions of the school counselor within a developmental, comprehensive program are examined, along with communication skills necessary for consultation with students, parents, school support staff, and resource people in the community nonacademic needs.

**CNS ED 6220 Current Issues In Counseling Special Needs****Populations: 3 semester hours**

Prerequisite: Graduate Standing Designed to analyze relevant literature and to provide communication skills training for those professionals in school settings who work with individuals with special needs. The characteristics and social and emotional needs of this special population will be discussed as well as the impact of special needs on the family system.

**CNS ED 6270 School Counseling Practicum: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010 (both courses with a grade of B- or better) or consent of instructor. One hundred clock hours of supervised practice in counseling to provide the opportunity for students to pragmatically integrate and process materials, theories, techniques, and methodologies as they are applied in the counseling profession with emphasis on school counseling.

**CNS ED 6280 School Counseling Field Experience: 1-6 semester hours**

Prerequisites: CNS ED 6270 with a grade of B or better and consent of instructor. A 100 clock hour field experience for each semester-credit-hour of enrollment. Students will be closely supervised under the direction of a graduate faculty member. Students must demonstrate counseling competencies and skillful ethical practice. Students will received 1.5 contact hours of grup supervision weekly by a gradiate faculty member and 1 contact hour of individual supervision weekly by field experience site supervisor during terms of enrollment. Course may be repeated for a maximum of 6 semester-credit-hours.

**CNS ED 6300 Foundations Of Clinical Mental Health Counseling: 3 semester hours**

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010. A survey of counseling in a variety of mental health settings. Introduction to the basic philosophical, historical, and psychological foundations of clinical mental health counseling. Designed to acquaint the student with the foundations and roles of the professional counselor in various community and agency settings.

**CNS ED 6370 Clinical Mental Health Counseling Practicum I: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010 (both courses with a grade of B- or better) or consent of the instructor. One hundred clock hours of supervised practice in counseling to provide the opportunity for students to pragmatically integrate and process materials, theories, techniques, and methodologies as they are applied in the counseling profession, focusing on clinical mental health counseling.

**CNS ED 6375 Clinical Mental Health Counseling Practicum II: 3 semester hours**

Prerequisites: CNS ED 6000, CNS ED 6010, and CNS ED 6370 (all courses with a grade of B- or better or S, as appropriate) or consent of instructor. One hundred clock hours of supervised advanced practice in counseling to provide the opportunity for students to continue to integrate and process theories, techniques, and methods as they are applied to the professional practice of counseling, with an emphasis on clinical mental health counseling.

**CNS ED 6380 Clinical Mental Health Counseling Field Experience: 1-6 semester hours**

Prerequisites: CNS ED 6370 and consent of instructor. A 100 clock hour field experience for each semester-credit-hour of enrollment. Students will be closely supervised under the direction of a graduate faculty member. Students must demonstrate counseling competencies and skillful ethical practice. Students will receive 1.5 contact hours of group supervision weekly by a graduate faculty member and 1 contact hour of individual supervision weekly by a field experience site supervisor during terms of enrollment. Course may be repeated for a maximum of 6 semester-credit-hours.

**CNS ED 6400 Career Information and Development: 3 semester hours**

Prerequisites: CNS ED 6000 with a grade of B or better and graduate standing. Emphasis is on the nature of the changing labor market and the impact on personal, social, economic, career, and educational aspects of individuals and society. Use of occupational and educational information systems and resources to assist with career decisions are examined. The needs of culturally diverse populations are discussed. Use of career and labor market information and programs such as computer technology to access up-to-date career and labor market information is explored. Techniques and methods of career counseling are discussed. Various theories of career development and career choice will be examined.

**CNS ED 6404 Seminar: 1-10 semester hours**

Prerequisite: Graduate Standing.

**CNS ED 6410 Advanced Career Development: 3 semester hours**

Prerequisites: CNS ED 6400 or consent of instructor Emphasis in on current theories of career development, career choice, and techniques and methods of career counseling. Issues concerning education and training, work, leisure, the family, life roles, and culturally diverse populations are studied. The role of career theory in planning, development, and delivery of a career development program is explored.

**CNS ED 6420 Career Assessment In Counseling And Rehabilitation: 3 semester hours**

Prerequisites: CNS ED 6050 and CNS ED 6400 or consent of instructor This course provides an in-depth and specialized look at the educational and psychological assessment techniques used in career counseling, especially the assessment of career interests, work values, work environment, work skills, work samples, career development stages, career maturity, career decision making, and career beliefs. Issues of using computers in the delivery of career development services will be discussed.

**CNS ED 6497 Problems: 1-10 semester hours**



***CNS ED 6500 Introduction to Systems Theory for Couples and Family Counseling: 3 semester hours***

Prerequisite: CNS ED 6010 or Consent of Instructor. This course is an introduction to relationship theory as applied to couples and family counseling. General systems theory, and social constructivism theory are reviewed. Students learn relationship interventions and beginning couple and family counseling techniques. Ethical, professional, and legal issues related to couples and family counseling are addressed.

***CNS ED 6510 Marriage Counseling And Enrichment: 3 semester hours***

Prerequisite: CNS ED 6500 Or Consent Of Instructor. This Course Focuses On The Theory And Techniques Of Marital Or Couples Counseling And Enrichment. Models And Methods For Prevention And Treatment Of Relationship Dysfunction Are Explored. Relationship Developmental Issues Are Addressed. Students Are Challenged To Develop The Critical Skills Necessary To Be Effective Marriage Counselors And Marital-Life Educators.

***CNS ED 6520 Family Counseling: 3 semester hours***

Prerequisite: CNS ED 6500 and CNS ED 6270, or CNS ED 6370, or consent of instructor. This course offers an in-depth analysis of strategic, structural, experiential, communications, behavioral, and psychodynamic approaches to systems change and family counseling. The range of techniques and applied practices evolving from each orientation are explored as are normal and dysfunctional family processes. Various counseling modalities, such as individual, concurrent, collaborative, conjoint, group, intergenerational, and networking are also considered.

***CNS ED 6600 Theories and Techniques of Counseling Children and Adolescents: 3 semester hours***

Prerequisites: CNS ED 6000, CNS ED 6010 (with a grade of B or better in both courses) or permission of instructor. This course focuses on counseling theories and their applicability to the developmental special concerns of children and adolescents including child-at risk issues such as: abuse, suicide, divorce, and death and dying. Individual, group, and family intervention techniques and consultation skills will be emphasized, as well as legal and ethical considerations for counselors. Strategies presented can be utilized in a variety of settings. Multicultural considerations are also addressed.

***CNS ED 6610 Introduction to Play Therapy: 3 semester hours***

Prerequisites: Graduate standing. Provides students a foundation for understanding the history, theories and application of play therapy. Working with children in both agency and school settings will be discussed as well as how play therapy skills can be incorporated into the student's developing theoretical framework. Can count towards the Registered Play Therapist Credential.

***CNS ED 6620 Advanced Play Therapy: 3 semester hours***

Prerequisites: CNS ED 6610. Helps students further develop their play therapy skills, especially in the area of client-centered play therapy. Examines the use of play therapy with traumatized children and aggressive children in both school and agency settings. Group play therapy and sand tray therapy as additional modalities will also be explored. Ethical and legal issues as well as supervision in play therapy will be emphasized. Can count towards the Registered Play Therapist credential.

***CNS ED 6700 Introduction To Addictive Behaviors And Addiction Counseling: 3 semester hours***

Prerequisites: CNS ED 6010 or Consent of Instructor Exploration of the theoretical foundations of contemporary approaches to such addictive behaviors as alcohol and drug abuse, smoking, compulsive gambling, and sexual addiction. The nature, etiology, prevention, and treatment of addictions are discussed and analyzed from a variety of theoretical perspectives. The applications of these specific theoretical models to various treatment settings are examined. Multicultural considerations are also addressed.

***CNS ED 6710 Advanced Strategies in Addictions Counseling: 3 semester hours***

Prerequisites: CNS ED 6700 or consent of instructor. Study of advanced, empirically supported counseling approaches and techniques for the treatment of addictive behaviors. An emphasis is placed on screening and assessment procedures and on matching interventions to individual client and community needs.

***CNS ED 6720 Counseling Individuals with Co-Occurring Disorders: 3 semester hours***

Prerequisites: CNS ED 6700 or consent of instructor. This course introduces the student to the special needs, concerns, and problems encountered when counseling clients who have co-occurring substance use and mental health problems. Subject areas include an overview of screening and assessment, evidence-based practices, counseling approaches and psychopharmacology for co-occurring disorders.

***CNS ED 6800 Rehabilitation Counseling: 3 semester hours***

Prerequisites: CNS ED 6000, CNS ED 6010, and CNS ED 6270 or CNS ED 6370, or consent of instructor. This course addresses: (a) the history of vocational rehabilitation; (b) specialty issues in rehabilitation counseling; (c) medical aspects of disability; (d) the rehabilitation process; (e) theories of rehabilitation; (f) the assessment process of individuals with disabilities; (g) the job placement and work adjustment process of individuals with disabilities; (h) ethical issues in rehabilitation counseling.

***CNS ED 6810 Integrating Religion And Spirituality In Counseling: 3 semester hours***

This course is for counselors and students wishing to develop the methods to integrate religion and spirituality in counseling and learn about counseling strategies for persons of various religious backgrounds, the link between health and religion, and ethics involved in the assessment and integration of religion and spirituality in practice.

***CNS ED 6820 Counseling Women Toward Empowerment: 3 semester hours***

Prerequisites: CNS ED 6000, CNS ED 6010, and CNS ED 6270 or CNS ED 6370, or consent of instructor. An introduction to Women's issues in counseling. Relational theory, healthy female development, and an overview of clinical issues most common to females will be presented.

***CNS ED 6830 Counseling African American Clients: 3 semester hours***

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of instructor. This course is designed to promote an increased awareness and understanding of the psychological development and mental health needs of African American clients. This course also offers research-based theoretical strategies for counseling this diverse population.

**CNS ED 6840 Counseling Sexual Minorities: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of instructor.

This course is focused on affirmative perspectives on lesbian, gay, bisexual, and transgender (LGBT) issues and populations. All of the major professional mental health organizations have formal ethical guidelines requiring non-discrimination with regard to LGBT populations and all of the organizations are active in promoting affirmative perspectives. Students will learn current perspectives in the fields of counseling and psychology on LGBT issues necessary for adequate practice or research in this area. A major focus will be on developing awareness and knowledge related to these populations.

**CNS ED 6850 Social Class and Poverty Issues In Counseling: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of the instructor. This course focuses on the experience of poor people in the United States. Specifically, the circumstances of poverty, the consequences of living in poverty (on behaviors, aspirations, relationships, education, and health including mental health), and the impact of poverty on the helping relationship will be addressed. Personal, social, and cultural aspects of poverty will be examined in both rural and urban settings. One objective of this course is to reduce the psychological distance between the poor client and the non-poor counselor. Included in this endeavor are specific attitude and techniques designed to maximize the quality of a counselor's work with poorer clients.

**CNS ED 6860 Human Sexuality in Counseling: 3 semester hours**

Prerequisites: CNS ED 6000 and CNS ED 6010, or consent of instructor. This course will focus on integrating issues of human sexuality into the counseling process. The psycho-sexual development of the individual from birth throughout the life span will be discussed and compared to other developmental tasks at each age. Themes related to influences from family, culture, environment, socioeconomic, ethnic, and religious perceptions of sexuality will be integrated. The physiology of human sexual function will be addressed, including variations in sexual orientation and gender identity.

**CNS ED 7000 Advanced Theories And Foundations Of Counseling Psychology: 3 semester hours**

Prerequisites: Doctoral standing or instructor consent. A seminar on the discipline of counseling psychology, including its history, development, and current status. An important focus will be contemporary and emergent theories in the field.

**CNS ED 7010 Advanced Multicultural Counseling: 3 semester hours**

Prerequisites: CNS ED 6030 and doctoral standing or consent of instructor. This advanced course addresses theories and research in multicultural counseling.

**CNS ED 7020 Seminar In Counseling Research: 3 semester hours**

Prerequisites: ED REM 6710, doctoral standing or consent of instructor. The purpose of this course is to review and analyze current counseling research literature. Ethical issues will be addressed.

**CNS ED 7030 Counselor Education And Supervision: 3 semester hours**

Prerequisites: Master's degree in Counseling. An introduction to clinical supervision in counseling. Theories, models, and research in supervision will be presented. Students will supervise master's level students in practicum and internship courses in counseling.

**CNS ED 7035 Counselor Education & Supervision Practicum: 3 semester hours**

Prerequisites: Admission to the Counseling Option in the Ed.D. or Ph.D. Program. Offers advanced training in counseling supervision. Students will supervise master's level students in practicum and internship courses in counseling. Students will be expected to maintain as assigned caseload of supervisees and attend three hours of weekly doctoral-level supervision.

**CNS ED 7400 Advanced Topics in School Counseling Leadership: 3 semester hours**

Prerequisites: Admission to the Counseling Option in the Ed.D. Program. Focuses on leadership roles and advanced skills for professional school counselors, school counseling supervisors, and evaluation strategies, and training and supervision strategies will be addressed, with a special emphasis on preventative and culturally sound interventions.

**CNS ED 7770 Doctoral Practicum: 3 semester hours**

Prerequisites: Doctoral Standing. One hundred clock hours of on-campus doctoral-level supervised counseling practice. Students will counsel clients and will be introduced to teaching and supervising beginning counseling trainees in a clinical context. As a prerequisite to the Doctoral Internship, students will be expected to demonstrate competence in skills required of counselor educators and clinical supervisors. Students will receive 1.5 hours of group and 1 hour of individual supervision by a graduate faculty member.

**CNS ED 7780 Doctoral Internship: 1-6 semester hours**

Prerequisites: CNS ED 7770; ED REM 7771; ED REM 7781. A 100-hour field experience for each semester-credit hour of enrollment under the direction of a graduate faculty member. Students provide counseling services to clients at field sites, teach and supervise beginning counseling trainees, and conduct clinical research projects. Students are supervised by a graduate faculty member in two hours per week of group supervision, and they receive one hour per week of individual supervision by the field site supervisor.

## Communication

### Courses

**COMM 1000 Effective Communication for College: 3 semester hours**

A communication by objective approach is used to introduce students to effective communication in a college environment. Emphasis is placed on preparing and delivering effective messages whether written or spoken, formal or informal, digital or hardcopy.

**COMM 1030 Interpersonal Communication I: 3 semester hours**

Introduction to the theories of interpersonal communication. Emphasis on basic principles involved in one-to-one interactions.

**COMM 1040 Introduction To Public Speaking: 3 semester hours**

Theories and techniques of organization, argumentation, persuasion and delivery in public speaking.

**COMM 1041 Presentational Speaking: 3 semester hours**

Theories and techniques of presenting information in various contexts, formats, and settings. Emphasis is placed on strategic coordination for message effectiveness in a team-based environment.

**COMM 1050 Introduction To Mass Communication: 3 semester hours**

Introduction to oral, print, and electronic media of communication, including emerging digital formats. The course covers the major theories of mass communication effects as well as the social, organizational, economic, political, and technological factors that shape the creation and reception of mass media messages.

**COMM 1135 Communication Theory: 3 semester hours**

Survey of elements and processes critical to human communication behavior. Comparison of influential communication theories.

**COMM 1150 Introduction To Public Relations: 3 semester hours**

Publicity methods and public relations representation of profit and nonprofit institutions to the public; use of communication research and media, as applied to the public relations profession.

**COMM 1920 Applied Communication: 3 semester hours**

Prerequisites: Consent of instructor. An intermediate experience in applied communication on UMSL's campus, such as the school newspaper or radio station. Work must be done on campus, under supervision of a working professional, and in consultation with a faculty member. Repeatable, but no more than six hours of credit may be applied toward the 36-hour minimum required for the degree.

**COMM 2230 Small Group Communication: 3 semester hours**

Development of communication skills needed in small group decision-making. Application of these skills in contemporary problems.

**COMM 2231 Communication In The Organization: 3 semester hours**

Course integrates communication theories applicable to the structure and function of organizations. The effect of communication variables on departmental interface, member satisfaction and motivation, leadership and subordinate styles, and perception of the organization by the external environment.

**COMM 2232 Effective Communication In The Organization: Tools For Leadership: 3 semester hours**

This telecourse is designed to equip students with communication skills applicable to the organizational context. The course will present effective strategies for the articulation of ideas, with particular emphasis on the development of leadership skills.

**COMM 2240 Persuasive Communication: 3 semester hours**

A study of persuasive communication including theories, techniques, forms, functions, applications, potential and limitations for individual and organizations. Insights from both classical rhetoric and contemporary communication theory.

**COMM 3130 Advanced Interpersonal Communication: 3 semester hours**

Prerequisite: COMM 1030. Continuation of COMM 1030, focusing on contemporary theories and research regarding interpersonal relationships.

**COMM 3150 Crisis, Disaster, and Risk Communication: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. Course will focus on three specialized areas within public relations: communication methods and infrastructure in relation to large-scale disaster management; organizational crisis communication; and public communication regarding environmental, chemical and other public risk issues.

**COMM 3330 Research Methods In Communication I: 3 semester hours**

Introduction to the fundamental tools of quantitative research in communication. Focus of the course is on reading and comprehending communication research reports rather than conducting quantitative research.

**COMM 3332 Intercultural Communication: 3 semester hours**

Prerequisite: Junior standing or consent of the instructor. Study of culture as a variable in both interpersonal and collective communicative situations. Emphasis upon opportunities and problems arising from similarities or differences in communication patterns, processes, and codes among various cultural groups.

**COMM 3337 Male/Female Communication: 3 semester hours**

Prerequisite: Junior standing or consent of instructor. This course explores the influence of gender upon contemporary American communication behavior. Topics include semantic and syntactic variations in male and female speech, gender-role development as process and product of communication, analysis of communication patterns and barriers within gender groups. Mass, public, interpersonal, and dyadic communication contexts are considered.

**COMM 3342 Modern Rhetoric And Public Address: 3 semester hours**

Prerequisite: COMM 1040 or consent of instructor. A survey of the history and theories of persuasion and public address from the post-renaissance era to the present.

**COMM 3352 Mass Media in Society: 3 semester hours**

Prerequisites: COMM 1050. Examination and evaluation of theories and literature concerning media content and its effect on society. Topics include the evidence relating to the effect of entertainment and information media on audiences' behavior and attitudes, the factors that contribute to individual differences in responses to media content, and the ways the organizational structure of the media industries shape the type of content that is produced.

**COMM 3355 Dangerous Messages: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. This course examines how communication can be used to promote as well as inhibit societal and individual well-being. Topics include alcohol and tobacco, drugs, sexual behavior, and others pertaining to health and risky behaviors. Stereotyping, diversity in media ownership and content, hate speech, and other topics with implications for the health of citizens individually and as a people may also be covered.

**COMM 3358 Communication In Public Relations: 3 semester hours**

Prerequisites: COMM 1150. An overview of communication within the area of public relations. Emphasis on ethics, law, professional standards and written communication. Case study approach.

**COMM 3360 Media & Health Communication: 3 semester hours**

Prerequisites: COMM 1050 or consent of the instructor. Topics include health promotion and prevention campaigns and the effect of news and entertainment media on health behaviors. Examination of the theories and literature dealing with the role of mass media in health behavior.

**COMM 3361 Interpersonal Health Communication: 3 semester hours**

Prerequisites: COMM 1030 and COMM 2231, or consent of the instructor. Examination of the theories and literature dealing with the role of interpersonal and organizational communication in health behavior and health care. Special focus on patient-provider communication, social support, and cultural conceptions of illness.

**COMM 3370 Social Media in Public Relations: 3 semester hours**

Prerequisites: COMM 3358. Overview of digital and social media in contemporary public relations. Online initiatives and related strategies will also be discussed.

**COMM 3395 Special Topics In Communication: 3 semester hours**

In-depth study of topics pertaining to current research in the department. May be repeated up to six credit hours if topic is different.

**COMM 3400 Language And Behavior: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. Examination of language and behavior which includes etiological considerations, functions, meanings, perceptions, and process-interaction rules.



**COMM 3410 Nonverbal Communication: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the paralinguistic cues that accompany normal communication such as facial expression, eye behavior, gestures and body movements, accents and dialects, and the impact of touch, among others. The implications for message construction, delivery, and perception are discussed.

**COMM 3500 Dysfunctional Communication: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of some of the factors that impede effective communication. Emphasis is placed both on individual attributes such as verbal aggression and communication apprehension, as well as context-based factors found in family and romantic relationships, among others.

**COMM 3510 Communication & Conflict: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the features that contribute to effective and ineffective communication during conflicts. The course integrates communication research and theory with practical applications in negotiation and conflict resolution.

**COMM 3520 Communication Barriers I: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. A review of communication research on physical and developmental barriers that impair or impede effective communication with children. A limited number of site visits and/or off-campus experiences are required.

**COMM 3521 Communication Barriers II: 3 semester hours**

Prerequisites: COMM 3520. An extension of COMM 3520, this course focuses on effective and empathic communication with children and adults encumbered by communication barriers. A strong emphasis on high impact educational experiences is a major component of this course. Site visits and/or off-campus experiences are required.

**COMM 3600 Communication and Families: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An analysis of research and theory involving communicative attributes and phenomena unique to the family context. Communication between parent-child, siblings, and extended family members, as well as more complex family structures are addressed. Functional and effective communication techniques are also discussed.

**COMM 3610 Communication and Relationships: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the contributions of communication researchers to the study of developing and maintaining human relationships with particular focus on communication in friendships and romantic relationships.

**COMM 3700 Computer-Mediated Communication: 3 semester hours**

Prerequisites: COMM 1030, COMM 1050, junior standing or consent of the instructor. A comparison of the similarities and differences between face-to-face communication and computer-mediated communication. Synchronous and asynchronous methods of interaction are examined, as well as other characteristics unique to the digital environment.

**COMM 3800 Trends in Mass Communication: 3 semester hours**

Prerequisites: COMM 1050, junior standing or consent of the instructor. A theoretical and research-based examination of popular trends in mass communication. May be repeated once if topics are different.

**COMM 4035 Integrated Approaches-Public Relations, Advertising, & Promotion: 3 semester hours**

Prerequisites: COMM 3358 or consent of instructor. Overview of how publicity, advertising and other promotional activities can be integrated into a single cohesive communication initiative or program.

**COMM 4100 Communication Campaigns: 3 semester hours**

Prerequisite: COMM 1030, COMM 1050, COMM 1150 and junior standing or consent of the instructor. This course focuses on the design, analysis, and implementation of mass communication-based information campaigns by integrating research and theory from interpersonal, mass communication, and public relations.

**COMM 4199 Applied Public Relations: 3 semester hours**

Prerequisites: COMM 1150, COMM 3358, COMM 4035, and junior standing or consent of the instructor. This course provides students with an applied experience in public relations. The course may require on-site visits to private firms and/or the development of multi-year strategic plans.

**COMM 4900 Directed Readings: 3 semester hours**

Prerequisite: Consent of instructor. Supervised independent study focused on discipline-relevant content that expands on concepts and theories presented in communication courses. May be repeated for credit.

**COMM 4910 Supervised Research: 1-3 semester hours**

Prerequisites: Consent of instructor. Supervised field, laboratory, or survey research experience that includes activities such as data collection, literature searches, qualitative or quantitative data analysis, survey or experiment administration, and other research related activities. May be repeated with consent of department.

**COMM 4920 Practicum In Applied Communication: 1-3 semester hours**

Prerequisite: Junior standing, at least 12 hours of course work in Communication, and consent of instructor; open to Communication majors/minors. Practicum work experience with any discipline-relevant unit at UMSL including, but not limited to: the offices of students affairs, public relations, and research administration; the school newspaper or radio station; and intra-departmental activities. Work must be done on campus, under supervision of a working professional in the field, and in consultation with a faculty member. Repeatable, but no more than six hours total credit may be earned in practicum courses toward the 36-hour minimum required for the degree.

**COMM 4950 Internship In Applied Communication: 3-6 semester hours**

Prerequisites: Senior standing with at least 12 hours of course work in Communication, consent of instructor; open to communication majors only. Advanced practical work experience emphasizing communication skills with any discipline-relevant entity. Experiences may include organizational and promotional activities, mass communication, public relations, research and writing, strategic communication, or training and development. Internships are off-campus and proposed sites must be approved by the department. Work must be done under supervision of a working professional in the field, and in consultation with a faculty member. Repeatable, but not more than six hours total credit may be earned in internship courses toward the 35-hour minimum required for the degree.

**COMM 5000 ACP - Elements of Public Speaking: 3 semester hours**

Prerequisites: Graduate Standing, Special Consent. This course focuses on the delivery of theory and research based public speaking content for teachers seeking certification to teach communication courses for the Advanced Credit Program.

**COMM 5010 ACP: Elements of Debate: 3 semester hours**

Prerequisites: Graduate Standing, Special Consent. This course focuses on developing a comprehensive understanding of the theory and research typically taught in college level forensics and debate courses. Designed for teachers seeking certification to teach communication courses for the Advanced Credit Program.



**COMM 5020 ACP - Persuasion and Influence: 3 semester hours**

Prerequisites: Graduate Standing, Special Consent. This course focuses on developing a strong background in the research and theory that underlies attempts to persuade and influence others through the use of effective communication. Designed for teachers seeking certification to teach communication courses for the Advanced Credit Programs.

**COMM 5050 ACP - Special Topics: 3-6 semester hours**

Prerequisites: COMM 5000, COMM 5010, and COMM 5020, Special Consent. This rotating topic course focuses on developing knowledge of communication theory and research applicable to the context of teaching public speaking and debate. Topics may include such issues as nonverbal communication, conflict communication, and argumentation, among others. Designed for teachers seeking certification to teach in the Advanced Credit Program. May be repeated for a maximum of 6 credit hours.

**COMM 5099 ACP - Observation and Implementation: 3 semester hours**

Prerequisites: COMM 5000, COMM 5010, COMM 5020 and COMM 5050, Special Consent. Provides a capstone experience for teachers seeking to teach communication courses in the advanced credit program. While enrolled, participants will implement an ACP course in their school under the supervision of the Communication Department's advanced Credit Program Liaison.

**COMM 6500 Seminar In Communication Theory: 3 semester hours**

Prerequisite: Graduate standing. Examination of the theoretical, methodological, and philosophy of science issues in the discipline of communication. Examines general, micro, contextual, and interdisciplinary (symbiotic) communication theories. Required of all graduate communication students.

**COMM 6510 Advanced Communication Research Methods I: 3 semester hours**

Prerequisites: Graduate standing. Concerns the logic and forms of communication inquiry including an examination of various communication research and evaluation methods and their theoretical frameworks. Topics include communication research strategy and methodology, scientific process, derivation and test of hypotheses, methods of research design. Provides and orientation to graduate research including proposal development for thesis, internship and paper requirements, and includes a theory-based research project of the student's choice. Required of all graduate communication students.

**COMM 6515 Advanced Communicatin Research Methods II: 3 semester hours**

Prerequisite: COMM 6510 or permission of instructor. Overview of the most commonly utilized methods in quantitative data analysis statistical methods in communication with an emphasis on understanding how the statistic is reported in scholarly articles and when to use that method, rather than in the mathematical computation of the method. Topics include: descriptive statistics, single and multi-factor analysis of variance, simple and multiple linear regression, basics of nonlinear regression, analysis of categorical data, meta-analysis, and non-parametric statistical methods. Required of all graduate communication students.

**COMM 6600 Seminar In Organizational Communication: 3 semester hours**

Prerequisite: Graduate standing. Explores communication theories and topics related to organizational institutional, and social system contexts and reviews the communication literature on behavior in organizations. Emphasizes a case study approach to the communication strategies used by agencies and corporations. Required of all graduate communication students.

**COMM 6650 Seminar in Health Communication: 3 semester hours**

Prerequisites: COMM 6500, COMM 6510, and COMM 6515. This course examines the theories, from communication and related disciplines, which researchers use to investigate health communication phenomena, as well as the application of those theories to understanding and solving health-related issues. Health communication theories across contexts are examined including those specific to interpersonal communication, mass communication, and organizational communication. Course topics include health campaigns, health education, health informatics, and health media use.

**COMM 6700 Seminar In Mass Communication: 3 semester hours**

Prerequisites: Graduate Standing. Examines the communication research literature pertaining to media industries, content, and effects. A broad range of media forms and possible effects are considered.

**COMM 6750 Media Reception Processes: 3 semester hours**

Prerequisites: COMM 6510 or permission of instructor. Examines how audiences select, interpret, and respond to media messages. Students, typically in a group, are involved in developing and carrying out a research study investigating the topic.

**COMM 6810 Communication Systems and Technology: 3 semester hours**

Prerequisite: Graduate Standing Examines innovations in modern communications technologies, their impacts on individuals and society, and their implications for communication research and practice.

**COMM 6815 Persuasion and Influence in Communication: 3 semester hours**

Prerequisite: Graduate Standing. Broad-based examination of the major theories of social influence and persuasion and their practical applications.

**COMM 6830 Seminar In Special Topics In Communication: 3 semester hours**

Prerequisite: Graduate Standing. Selected topics in the study of communication. Review of the communication theory and methods appropriate to the topic. The course includes a research project. May be repeated if the topic is different.

**COMM 6900 Directed Readings In Communication: 1-6 semester hours**

Prerequisite: Graduate Standing and consent of instructor. Independent study of published research and reports relating to a specific topic in communication. May be repeated for credit with permission of advisor.

**COMM 6910 Supervised Research In Communication: 1-3 semester hours**

Prerequisites: Graduate Standing and consent of instructor. Primary research on specific topics in communication. May involve collaborative research with a faculty member on a topic of mutual interest or data collection/analysis for a project developed by the student under the guidance of a faculty member. May be repeated for credit with permission of advisor.

**COMM 6920 Practicum In Computer-Mediated Communication: 1-3 semester hours**

Prerequisites: Graduate standing and consent of program director. Applied practice or research in collaboration with a faculty member.

**COMM 6950 Graduate Internship: 3-6 semester hours**

Prerequisites: Graduate standing and approval of graduate coordinator. Individual on-site internship in organizational or mass communication. May be repeated.

**COMM 6960 Thesis Research And Preparation: 1-10 semester hours**

Prerequisites: Graduate Standing and consent of instructor. Individual research for and preparation of the graduate thesis.

## Courses

**COMM 1000 Effective Communication for College: 3 semester hours**

A communication by objective approach is used to introduce students to effective communication in a college environment. Emphasis is placed on preparing and delivering effective messages whether written or spoken, formal or informal, digital or hardcopy.

**COMM 1030 Interpersonal Communication I: 3 semester hours**

Introduction to the theories of interpersonal communication. Emphasis on basic principles involved in one-to-one interactions.

**COMM 1040 Introduction To Public Speaking: 3 semester hours**

Theories and techniques of organization, argumentation, persuasion and delivery in public speaking.

**COMM 1041 Presentational Speaking: 3 semester hours**

Theories and techniques of presenting information in various contexts, formats, and settings. Emphasis is placed on strategic coordination for message effectiveness in a team-based environment.

**COMM 1050 Introduction To Mass Communication: 3 semester hours**

Introduction to oral, print, and electronic media of communication, including emerging digital formats. The course covers the major theories of mass communication effects as well as the social, organizational, economic, political, and technological factors that shape the creation and reception of mass media messages.

**COMM 1135 Communication Theory: 3 semester hours**

Survey of elements and processes critical to human communication behavior. Comparison of influential communication theories.

**COMM 1150 Introduction To Public Relations: 3 semester hours**

Publicity methods and public relations representation of profit and nonprofit institutions to the public; use of communication research and media, as applied to the public relations profession.

**COMM 1920 Applied Communication: 3 semester hours**

Prerequisites: Consent of instructor. An intermediate experience in applied communication on UMSL's campus, such as the school newspaper or radio station. Work must be done on campus, under supervision of a working professional, and in consultation with a faculty member. Repeatable, but no more than six hours of credit may be applied toward the 36-hour minimum required for the degree.

**COMM 2230 Small Group Communication: 3 semester hours**

Development of communication skills needed in small group decision-making. Application of these skills in contemporary problems.

**COMM 2231 Communication In The Organization: 3 semester hours**

Course integrates communication theories applicable to the structure and function of organizations. The effect of communication variables on departmental interface, member satisfaction and motivation, leadership and subordinate styles, and perception of the organization by the external environment.

**COMM 2232 Effective Communication In The Organization: Tools For Leadership: 3 semester hours**

This telecourse is designed to equip students with communication skills applicable to the organizational context. The course will present effective strategies for the articulation of ideas, with particular emphasis on the development of leadership skills.

**COMM 2240 Persuasive Communication: 3 semester hours**

A study of persuasive communication including theories, techniques, forms, functions, applications, potential and limitations for individual and organizations. Insights from both classical rhetoric and contemporary communication theory.

**COMM 3130 Advanced Interpersonal Communication: 3 semester hours**

Prerequisite: COMM 1030. Continuation of COMM 1030, focusing on contemporary theories and research regarding interpersonal relationships.

**COMM 3150 Crisis, Disaster, and Risk Communication: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. Course will focus on three specialized areas within public relations: communication methods and infrastructure in relation to large-scale disaster management; organizational crisis communication; and public communication regarding environmental, chemical and other public risk issues.

**COMM 3330 Research Methods In Communication I: 3 semester hours**

Introduction to the fundamental tools of quantitative research in communication. Focus of the course is on reading and comprehending communication research reports rather than conducting quantitative research.

**COMM 3332 Intercultural Communication: 3 semester hours**

Prerequisite: Junior standing or consent of the instructor. Study of culture as a variable in both interpersonal and collective communicative situations. Emphasis upon opportunities and problems arising from similarities or differences in communication patterns, processes, and codes among various cultural groups.

**COMM 3337 Male/Female Communication: 3 semester hours**

Prerequisite: Junior standing or consent of instructor. This course explores the influence of gender upon contemporary American communication behavior. Topics include semantic and syntactic variations in male and female speech, gender-role development as process and product of communication, analysis of communication patterns and barriers within gender groups. Mass, public, interpersonal, and dyadic communication contexts are considered.

**COMM 3342 Modern Rhetoric And Public Address: 3 semester hours**

Prerequisite: COMM 1040 or consent of instructor. A survey of the history and theories of persuasion and public address from the post-renaissance era to the present.

**COMM 3352 Mass Media in Society: 3 semester hours**

Prerequisites: COMM 1050. Examination and evaluation of theories and literature concerning media content and its effect on society. Topics include the evidence relating to the effect of entertainment and information media on audiences' behavior and attitudes, the factors that contribute to individual differences in responses to media content, and the ways the organizational structure of the media industries shape the type of content that is produced.

**COMM 3355 Dangerous Messages: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. This course examines how communication can be used to promote as well as inhibit societal and individual well-being. Topics include alcohol and tobacco, drugs, sexual behavior, and others pertaining to health and risky behaviors. Stereotyping, diversity in media ownership and content, hate speech, and other topics with implications for the health of citizens individually and as a people may also be covered.

**COMM 3358 Communication In Public Relations: 3 semester hours**

Prerequisites: COMM 1150. An overview of communication within the area of public relations. Emphasis on ethics, law, professional standards and written communication. Case study approach.

**COMM 3360 Media & Health Communication: 3 semester hours**

Prerequisites: COMM 1050 or consent of the instructor. Topics include health promotion and prevention campaigns and the effect of news and entertainment media on health behaviors. Examination of the theories and literature dealing with the role of mass media in health behavior.

**COMM 3361 Interpersonal Health Communication: 3 semester hours**

Prerequisites: COMM 1030 and COMM 2231, or consent of the instructor. Examination of the theories and literature dealing with the role of interpersonal and organizational communication in health behavior and health care. Special focus on patient-provider communication, social support, and cultural conceptions of illness.

**COMM 3370 Social Media in Public Relations: 3 semester hours**

Prerequisites: COMM 3358. Overview of digital and social media in contemporary public relations. Online initiatives and related strategies will also be discussed.

**COMM 3395 Special Topics In Communication: 3 semester hours**

In-depth study of topics pertaining to current research in the department. May be repeated up to six credit hours if topic is different.

**COMM 3400 Language And Behavior: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. Examination of language and behavior which includes etiological considerations, functions, meanings, perceptions, and process-interaction rules.

**COMM 3410 Nonverbal Communication: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the paralinguistic cues that accompany normal communication such as facial expression, eye behavior, gestures and body movements, accents and dialects, and the impact of touch, among others. The implications for message construction, delivery, and perception are discussed.

**COMM 3500 Dysfunctional Communication: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of some of the factors that impede effective communication. Emphasis is placed both on individual attributes such as verbal aggression and communication apprehension, as well as context-based factors found in family and romantic relationships, among others.

**COMM 3510 Communication & Conflict: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the features that contribute to effective and ineffective communication during conflicts. The course integrates communication research and theory with practical applications in negotiation and conflict resolution.

**COMM 3520 Communication Barriers I: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. A review of communication research on physical and developmental barriers that impair or impede effective communication with children. A limited number of site visits and/or off-campus experiences are required.

**COMM 3521 Communication Barriers II: 3 semester hours**

Prerequisites: COMM 3520. An extension of COMM 3520, this course focuses on effective and empathic communication with children and adults encumbered by communication barriers. A strong emphasis on high impact educational experiences is a major component of this course. Site visits and/or off-campus experiences are required.

**COMM 3600 Communication and Families: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An analysis of research and theory involving communicative attributes and phenomena unique to the family context. Communication between parent-child, siblings, and extended family members, as well as more complex family structures are addressed. Functional and effective communication techniques are also discussed.

**COMM 3610 Communication and Relationships: 3 semester hours**

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the contributions of communication researchers to the study of developing and maintaining human relationships with particular focus on communication in friendships and romantic relationships.

**COMM 3700 Computer-Mediated Communication: 3 semester hours**

Prerequisites: COMM 1030, COMM 1050, junior standing or consent of the instructor. A comparison of the similarities and differences between face-to-face communication and computer-mediated communication. Synchronous and asynchronous methods of interaction are examined, as well as other characteristics unique to the digital environment.

**COMM 3800 Trends in Mass Communication: 3 semester hours**

Prerequisites: COMM 1050, junior standing or consent of the instructor. A theoretical and research-based examination of popular trends in mass communication. May be repeated once if topics are different.

**COMM 4035 Integrated Approaches-Public Relations, Advertising, & Promotion: 3 semester hours**

Prerequisites: COMM 3358 or consent of instructor. Overview of how publicity, advertising and other promotional activities can be integrated into a single cohesive communication initiative or program.

**COMM 4100 Communication Campaigns: 3 semester hours**

Prerequisite: COMM 1030, COMM 1050, COMM 1150 and junior standing or consent of the instructor. This course focuses on the design, analysis, and implementation of mass communication-based information campaigns by integrating research and theory from interpersonal, mass communication, and public relations.

**COMM 4199 Applied Public Relations: 3 semester hours**

Prerequisites: COMM 1150, COMM 3358, COMM 4035, and junior standing or consent of the instructor. This course provides students with an applied experience in public relations. The course may require on-site visits to private firms and/or the development of multi-year strategic plans.

**COMM 4900 Directed Readings: 3 semester hours**

Prerequisite: Consent of instructor. Supervised independent study focused on discipline-relevant content that expands on concepts and theories presented in communication courses. May be repeated for credit.

**COMM 4910 Supervised Research: 1-3 semester hours**

Prerequisites: Consent of instructor. Supervised field, laboratory, or survey research experience that includes activities such as data collection, literature searches, qualitative or quantitative data analysis, survey or experiment administration, and other research related activities. May be repeated with consent of department.



**COMM 4920 Practicum In Applied Communication: 1-3 semester hours**

Prerequisite: Junior standing, at least 12 hours of course work in Communication, and consent of instructor; open to Communication majors/minors. Practicum work experience with any discipline-relevant unit at UMSL including, but not limited to: the offices of students affairs, public relations, and research administration; the school newspaper or radio station; and intra-departmental activities. Work must be done on campus, under supervision of a working professional in the field, and in consultation with a faculty member. Repeatable, but no more than six hours total credit may be earned in practicum courses toward the 36-hour minimum required for the degree.

**COMM 4950 Internship In Applied Communication: 3-6 semester hours**

Prerequisites: Senior standing with at least 12 hours of course work in Communication, consent of instructor; open to communication majors only. Advanced practical work experience emphasizing communication skills with any discipline-relevant entity. Experiences may include organizational and promotional activities, mass communication, public relations, research and writing, strategic communication, or training and development. Internships are off-campus and proposed sites must be approved by the department. Work must be done under supervision of a working professional in the field, and in consultation with a faculty member. Repeatable, but not more than six hours total credit may be earned in internship courses toward the 35-hour minimum required for the degree.

**COMM 5000 ACP - Elements of Public Speaking: 3 semester hours**

Prerequisites: Graduate Standing, Special Consent. This course focuses on the delivery of theory and research based public speaking content for teachers seeking certification to teach communication courses for the Advanced Credit Program.

**COMM 5010 ACP: Elements of Debate: 3 semester hours**

Prerequisites: Graduate Standing, Special Consent. This course focuses on developing a comprehensive understanding of the theory and research typically taught in college level forensics and debate courses. Designed for teachers seeking certification to teach communication courses for the Advanced Credit Program.

**COMM 5020 ACP - Persuasion and Influence: 3 semester hours**

Prerequisites: Graduate Standing, Special Consent. This course focuses on developing a strong background in the research and theory that underlies attempts to persuade and influence others through the use of effective communication. Designed for teachers seeking certification to teach communication courses for the Advanced Credit Programs.

**COMM 5050 ACP - Special Topics: 3-6 semester hours**

Prerequisites: COMM 5000, COMM 5010, and COMM 5020, Special Consent. This rotating topic course focuses on developing knowledge of communication theory and research applicable to the context of teaching public speaking and debate. Topics may include such issues as nonverbal communication, conflict communication, and argumentation, among others. Designed for teachers seeking certification to teach in the Advanced Credit Program. May be repeated for a maximum of 6 credit hours.

**COMM 5099 ACP - Observation and Implementation: 3 semester hours**

Prerequisites: COMM 5000, COMM 5010, COMM 5020 and COMM 5050, Special Consent. Provides a capstone experience for teachers seeking to teach communication courses in the advanced credit program. While enrolled, participants will implement an ACP course in their school under the supervision of the Communication Department's advanced Credit Program Liaison.

**COMM 6500 Seminar In Communication Theory: 3 semester hours**

Prerequisite: Graduate standing. Examination of the theoretical, methodological, and philosophy of science issues in the discipline of communication. Examines general, micro, contextual, and interdisciplinary (symbiotic) communication theories. Required of all graduate communication students.

**COMM 6510 Advanced Communication Research Methods I: 3 semester hours**

Prerequisites: Graduate standing. Concerns the logic and forms of communication inquiry including an examination of various communication research and evaluation methods and their theoretical frameworks. Topics include communication research strategy and methodology, scientific process, derivation and test of hypotheses, methods of research design. Provides and orientation to graduate research including proposal development for thesis, internship and paper requirements, and includes a theory-based research project of the student's choice. Required of all graduate communication students.

**COMM 6515 Advanced Communicatin Research Methods II: 3 semester hours**

Prerequisite: COMM 6510 or permission of instructor. Overview of the most commonly utilized methods in quantitative data analysis statistical methods in communication with an emphasis on understanding how the statistic is reported in scholarly articles and when to use that method, rather than in the mathematical computation of the method. Topics include: descriptive statistics, single and multi-factor analysis of variance, simple and multiple linear regression, basics of nonlinear regression, analysis of categorical data, meta-analysis, and non-parametric statistical methods. Required of all graduate communication students.

**COMM 6600 Seminar In Organizational Communication: 3 semester hours**

Prerequisite: Graduate standing. Explores communication theories and topics related to organizational institutional, and social system contexts and reviews the communication literature on behavior in organizations. Emphasizes a case study approach to the communication strategies used by agencies and corporations. Required of all graduate communication students.

**COMM 6650 Seminar in Health Communication: 3 semester hours**

Prerequisites: COMM 6500, COMM 6510, and COMM 6515. This course examines the theories, from communication and related disciplines, which researchers use to investigate health communication phenomena, as well as the application of those theories to understanding and solving health-related issues. Health communication theories across contexts are examined including those specific to interpersonal communication, mass communication, and organizational communication. Course topics include health campaigns, health education, health informatics, and health media use.

**COMM 6700 Seminar In Mass Communication: 3 semester hours**

Prerequisites: Graduate Standing. Examines the communication research literature pertaining to media industries, content, and effects. A broad range of media forms and possible effects are considered.

**COMM 6750 Media Reception Processes: 3 semester hours**

Prerequisites: COMM 6510 or permission of instructor. Examines how audiences select, interpret, and respond to media messages. Students, typically in a group, are involved in developing and carrying out a research study investigating the topic.



**COMM 6810 Communication Systems and Technology: 3 semester hours**

Prerequisite: Graduate Standing Examines innovations in modern communications technologies, their impacts on individuals and society, and their implications for communication research and practice.

**COMM 6815 Persuasion and Influence in Communication: 3 semester hours**

Prerequisite: Graduate Standing. Broad-based examination of the major theories of social influence and persuasion and their practical applications.

**COMM 6830 Seminar In Special Topics In Communication: 3 semester hours**

Prerequisite: Graduate Standing. Selected topics in the study of communication. Review of the communication theory and methods appropriate to the topic. The course includes a research project. May be repeated if the topic is different.

**COMM 6900 Directed Readings In Communication: 1-6 semester hours**

Prerequisite: Graduate Standing and consent of instructor. Independent study of published research and reports relating to a specific topic in communication. May be repeated for credit with permission of advisor.

**COMM 6910 Supervised Research In Communication: 1-3 semester hours**

Prerequisites: Graduate Standing and consent of instructor. Primary research on specific topics in communication. May involve collaborative research with a faculty member on a topic of mutual interest or data collection/analysis for a project developed by the student under the guidance of a faculty member. May be repeated for credit with permission of advisor.

**COMM 6920 Practicum In Computer-Mediated Communication: 1-3 semester hours**

Prerequisites: Graduate standing and consent of program director. Applied practice or research in collaboration with a faculty member.

**COMM 6950 Graduate Internship: 3-6 semester hours**

Prerequisites: Graduate standing and approval of graduate coordinator. Individual on-site internship in organizational or mass communication. May be repeated.

**COMM 6960 Thesis Research And Preparation: 1-10 semester hours**

Prerequisites: Graduate Standing and consent of instructor. Individual research for and preparation of the graduate thesis.

## Criminology & Criminal Justice

### Courses

**CRIMIN 1100 Introduction To Criminology And Criminal Justice: 3 semester hours**

Introduction to the basic concepts and approaches in the study of criminology and criminal justice. The major components of the criminal justice system are examined.

**CRIMIN 1110 Theories Of Crime: 3 semester hours**

Prerequisite: CRIMIN 1100 Introduction to major theoretical approaches to the study of crime and justice.

**CRIMIN 1120 Criminal Law: 3 semester hours**

Prerequisite: CRIMIN 1100. Analysis of substantive criminal law, evidence and judicial procedure.

**CRIMIN 1150 Violence In America: 3 semester hours**

Prerequisites: CRIMIN 1100 or consent of instructor. Overview of patterns and correlates of violence in America. Emphasis on the variety of forms of violent crimes, such as murder, assault, robbery, rape, and gang violence. Includes an examination of violence as a response to lawbreaking.

**CRIMIN 1200 Foundations Of Law: An Introduction To Legal Studies: 3 semester hours**

Same as POL SCI 1200. As a broad liberal-arts approach to the study of law, this course is designed to familiarize students with legal ideas, legal reasoning, and legal processes. It also provides comparative and historical perspectives on law that will help explain legal diversity and legal change. Finally, it offers opportunities to explore some of the persistent issues in law and legal theory: for example, issues about the sources of law, the responsibilities of the legal profession, or the relative merits of the adversary system.

**CRIMIN 2130 Criminal Justice Policy: 3 semester hours**

Prerequisite: CRIMIN 1100 Introduction to criminal justice policy making, planning and implementation.

**CRIMIN 2180 Alcohol, Drugs And Society: 3 semester hours**

Same as SOC 2180. Prerequisite: SOC 1010 or PSYCH 1003. This course examines the medical, legal and social aspects of alcohol and drug use. Medical aspects considered include treatment approaches and the role of Physicians in controlling such behavior. In the legal realm, past and present alcohol and drug laws are explored. Cultural and social influences on alcohol and drug use are discussed.

**CRIMIN 2210 Research Methods In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: CRIMIN 1100. Examination of basic methods of research design, measurement and data collection in criminology and criminal justice.

**CRIMIN 2220 Statistical Analysis In Criminology And Criminal Justice: 4 semester hours**

Prerequisites: CRIMIN 2210 and the university math proficiency requirement. An introduction to techniques of quantitative data analysis. Both descriptive and inferential statistics are applied to problems in criminology and criminal justice. Includes a one hour lab. Courses with a CRIMIN 2220 prerequisite require a minimum grade of "C" to be earned by the student in this course.

**CRIMIN 2240 Policing: 3 semester hours**

Prerequisite: CRIMIN 1100 Overview of current and historical perspectives on the function of American policing. Emphasis on the management of police organizations and relationships with the community.

**CRIMIN 2250 Courts: 3 semester hours**

Prerequisite: CRIMIN 1100. This course provides an overview of current and historical perspectives on the function of the American courts. Emphasis on the dynamics of courthouse justice, with special attention placed on the roles of the prosecutors, judges, defense attorneys, defendants, victims, and jurors regarding the decisions that impact the adjudication process.

**CRIMIN 2251 Youth Gangs: 3 semester hours**

Prerequisites: CRIMIN 1100 or consent of instructor. This course provides an overview of research and policy concerning youth gangs. Definitional and methodological issues will be examined, along with both qualitative and quantitative research. Topics include: the causes of gangs and gang involvement; and variations by race, gender, time period, and geography.

**CRIMIN 2252 Philosophical Foundations Of Criminal Justice: 3 semester hours**

**CRIMIN 2260 Corrections: 3 semester hours**

Prerequisite: CRIMIN 1100. Examination of correctional philosophies and practices. Emphasis on the history of corrections, the formal and informal organization of correctional facilities, inmate rights, and correctional alternatives.

**CRIMIN 3043 History Of Crime And Justice: 3 semester hours**

Same as HIST 3043. Prerequisites: Junior standing or consent of instructor. The analysis development, and change in philosophies and responses to crime. Emphasis on major forms and definitions of crime, the emergence of modern policing, the birth of the prison and the juvenile court.

**CRIMIN 3209 Forensic Anthropology: 4 semester hours**

Same as ANTHRO 3209. Prerequisites: ANTHRO 1005 or BIOL 1102 or consent of instructor. Students learn basic human dental and skeletal anatomy and the methods used by biological anthropologists and archaeologists to collect and analyze human skeletal remains, including how to age and sex skeletal remains, identify ethnic markers, determine stature and handedness, and identify the presence of trauma and/or pathology. Also covers the role of the forensic anthropologist in crime scene investigations and human rights issues. In the weekly lab section students will have an opportunity for hands-on application of techniques to skeletal remains.

**CRIMIN 3230 Crime Prevention: 3 semester hours**

Prerequisites: Junior standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Examination of situational, social, and legislative approaches to the prevention of crime and delinquency. Emphasis on theories, implementation, and consequences of these approaches.

**CRIMIN 3270 Juvenile Justice And Delinquency: 3 semester hours**

Prerequisite: Junior Standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Examination of formal and informal responses to juvenile delinquency. Emphasis on theories of delinquency and the decision-making processes of police, court and probation officials.

**CRIMIN 3280 Internship In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: Junior standing. Internship under faculty supervision in criminal justice setting. May be repeated for one credit.

**CRIMIN 3290 Special Readings: 1-6 semester hours**

Prerequisite: Consent of instructor. Individualized study, under regular faculty supervision, designed to meet particular educational needs of selected students.

**CRIMIN 3305 Comparative Criminology and Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Analysis of crime and criminal justice systems in selected cultures. Emphasis on the ways in which these cultures define and respond to criminal behavior. Fulfills CRIMIN diversity requirement.

**CRIMIN 3310 Computers In Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Use of computers, data base systems, and software applications in research and professional practice.

**CRIMIN 3320 The Death Penalty: 3 semester hours**

Prerequisite: CRIMIN 1100 An examination of the history, application, and attitudes toward the death penalty.

**CRIMIN 3330 White Collar Crime: 3 semester hours**

Prerequisites: Junior Standing, CRIMIN 1120, CRIMIN 2130, CRIMIN 2220, and ENGL 3100, or consent of instructor. This course examines the physical and financial harm caused by crimes committed by corporations and business employees. Theoretical and empirical perspectives will be examined. Topics include: definitional issues and ethics; public perceptions; social, political and economic impact; and legal decision-making.

**CRIMIN 3345 Rights Of The Offender: 3 semester hours**

Prerequisites: CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Analysis of the objectives of criminal law regarding the rights of persons suspected or convicted of crime. Emphasis on rights regarding the police, the court, and in correctional settings.

**CRIMIN 4300 Communities And Crime: 3 semester hours**

Same as SOC 4300. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Analysis of the sources, consequences, and control of crime within communities. Emphasis on social and ecological theories of crime, and on population instability, family structure, and the concentration of poverty as causes of crime.

**CRIMIN 4320 Forms Of Criminal Behavior: 3 semester hours**

Same as SOC 4320. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Examination of major types of criminal behavior including violent, property, public order, and organizational offenses. Emphasis on theories of and responses to these crimes.

**CRIMIN 4325 Gender, Crime, And Justice: 3 semester hours**

Same as SOC 4325 and GS 4325. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220 and ENGL 3100 or consent of instructor. Analysis of the role of gender in crime and in the justice system. Emphasis on gender differences in crime commission, criminal processing, and the employment of women in criminal justice agencies. Fulfills CRIMIN diversity requirement.

**CRIMIN 4330 Violence Against Women: 3 semester hours**

Same as GS 4330. Prerequisites: Junior Standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. This course examines the nature, extent, causes and consequences of various types of violence against women, including rape, sexual assault, stalking, and intimate partner violence. Criminal justice policy and practice regarding violence against women are also examined.

**CRIMIN 4335 Probation And Parole: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, CRIMIN 2260, and ENGL 3100, or consent of instructor. Analysis of alternatives to incarceration and postincarceration supervision. emphasis on diversion, restitution, and community reintegration.

**CRIMIN 4340 Race, Crime, And Justice: 3 semester hours**

Same as SOC 4340. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Analysis of the involvement of racial minorities in crime and the criminal justice system. Emphasis on group differences in offending, processing, victimization, and employment in criminal justice agencies. Fulfills CRIMIN diversity requirement.

**CRIMIN 4350 Victimology: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Analysis of major perspectives on victimization. Emphasis on patterns of victimization, the role of victims in the generation of crime, and the experience of the victim in the criminal justice system.

**CRIMIN 4380 Special Topics In Criminology And Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. In-depth study of a selected topic in criminology and criminal justice.

**CRIMIN 4390 Seminar In Criminology And Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. In this capstone course, students demonstrate the ability to work independently, integrating theory and research in criminology and criminal justice in a major paper supervised by the instructor.

**CRIMIN 4487 Philosophy Of Law: 3 semester hours**

Same As PHIL 4487. Prerequisites: CRIMIN 1100 and 3 hours of philosophy and/or consent of instructor. An intensive study of recent philosophical debate about such issues as the authority of law, legal equality and justice, legal responsibility, self-determination and privacy, and legal punishment.

**CRIMIN 5415 Foundations Of Criminological Theory: 3 semester hours**

Prerequisites: Graduate standing and consent of instructor. Examination of the history of criminological thought incorporating the major works of such theorists as Bentham, Beccaria, Marx, Durkheim, Lombroso, Sutherland and Merton.

**CRIMIN 5533 Philosophy Of Law: 3 semester hours**

Same as PHIL 5533. Prerequisite: Graduate standing or consent of instructor. Examination of origins of law and the basis for legal obligation. Specific consideration of the justification of punishment, morality and law, and legal reasoning.

**CRIMIN 6400 Proseminar: 3 semester hours**

Prerequisite: Graduate standing. (Must be taken in the first Semester). A critical examination of theoretical, methodological and policy issues in criminology and criminal justice. Focus is on the nature of crime, policing, pretrial processes, adjudication and corrections.

**CRIMIN 6405 Methods: 3 semester hours**

Prerequisite: Graduate standing and consent of instructor. Examination of basic methods for research design and data collection. Topics include participant observation and interviewing, survey research, aggregate data analysis, and experimental design.

**CRIMIN 6410 Statistical Applications In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: CRIMIN 6405 Examination of elementary principles of quantitative analysis and their application to crime and justice problems. Topics include univariate, bivariate and multivariate procedures for discrete and continuous data, and a comprehensive introduction to ordinary least squares regression.

**CRIMIN 6420 Contemporary Criminal Theories: 3 semester hours**

Prerequisite: CRIMIN 5415. Examination of contemporary explanations of crime and criminal justice. Theories covered include strain, control, cultural, labeling, conflict, as well as more recent attempts at theoretical integration and multidisciplinary integration.

**CRIMIN 6422 Law Courts, And Public Policy: 3 semester hours**

Prerequisite: Graduate Standing. (Same as Political Science 6422) An analysis of the role of courts as policymaking institutions and the law as policy. We will explore the role of judges as policymakers, consider the attributes of courts, (both trial and appellate), that make them appropriate yet limited targets for advocates of reform, and the implementation and impact of court decisions. We will consider recent examples of judicial involvement in state and national policymaking. In addition, we will examine the role of lawyers and interest groups in selecting litigation rather than alternative political processes for policy change.

**CRIMIN 6436 Comparative Criminology: 3 semester hours**

Prerequisite: Graduate Standing Examination of crime and criminal justice systems in world perspective.

**CRIMIN 6440 Nature Of Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of patterns and correlates of crime at the individual, situational, and aggregate levels. Topics include definitions of crime, offending topologies, and criminal careers.

**CRIMIN 6441 Juvenile Delinquency: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of youth crime and juvenile offenders. Topics include definitions of juvenile crime, and theories of juvenile crime causation in the U.S.

**CRIMIN 6442 Communities And Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the trends and sources of crime and social disorder across communities. The course emphasizes relationships among crime, neighborhood change, neighborhood responses to crime, and public policies.

**CRIMIN 6443 Violent Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the sources and patterns of violent offending across time and space. Topics include conceptions and typologies of violent crimes and offenders, victim-offender relationships, and efforts to predict and control violent offending.

**CRIMIN 6445 Property Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the sources and patterns of property offending across time and space. Topics include conceptions and typologies of property crimes and offenders, victim-offender relationships, and efforts to predict and control property offending.

**CRIMIN 6446 Sex Crime: 3 semester hours**

Same as GS 6446. Prerequisites: Graduate standing and consent of instructor. Examination of consensual and non-consensual sexual offending. Topics include historical development of laws regulating sexual conduct, controversies surrounding the application of these laws, and the nature and distribution of sexual offenses.

**CRIMIN 6448 Victimization: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the risks and consequences of crime for its victims. Issues considered include victim-offender relationships, characteristics of victims, the nature of the injuries they experience and criminal justice procedures that involve them.

**CRIMIN 6450 Criminal Justice Process And Policy: 3 semester hours**

Prerequisite: Graduate standing An analysis of criminal justice as a network of decisions and complex organizations. Topics include sources of criminal justice policy, policy agendas, implementation and evaluation.



**CRIMIN 6452 The Police: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Historical, social and political analysis of policing in America. Examination of federal, state, county and municipal agencies.

**CRIMIN 6454 Corrections: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the history, forms, and functions of correctional philosophies, institutions, programs and policies. Topics include the structure and functions of prisons and jails, community corrections, intermediate sanctions, and the growth of correctional control in modern society.

**CRIMIN 6465 Qualitative Research Design: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of participant observation and informant and respondent interviewing. Topics include gaining access, sampling, data collection and analysis, and legal and ethical concerns.

**CRIMIN 6470 Quantitative Research Design: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Examination of experimental, longitudinal, and cross-sectional designs. Sources of data, sampling procedures, operational definitions, and issues of reliability are also discussed.

**CRIMIN 6471 Evaluating Criminal Justice Interventions: 3 semester hours**

Prerequisites: CRIMIN 6405 and CRIMIN 6410 This course examines a broad range of interventions designed to prevent crime or improve some aspect of the criminal justice system. The validity reliability, and feasibility of differing intervention designs are addressed. Several major criminal justice evaluations are discussed.

**CRIMIN 6480 Multivariate Statistics In Criminology: 3 semester hours**

Prerequisites: CRIMIN 6405 and CRIMIN 6470 Introduction to the general linear model with applications to multivariate problems in criminal justice and criminology. Topics include advanced ordinary least squares, causal modeling, time series analysis, simultaneous equations, and analysis of limited dependent variables.

**CRIMIN 6485 Directed Readings/Research In Criminology And Criminal Justice: 1-6 semester hours**

Prerequisite: Consent Of Instructor. Directed Reading And Research, Under Faculty Supervision, Designed To Meet Particular Educational Needs Of Selected Students.

**CRIMIN 6495 Internship In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: Graduate Standing Or Consent Of Instructor. Supervised Placements With Criminal Justice Agencies. Designed Primarily For Students With Limited Field Experience.

**CRIMIN 6498 M A Thesis Research: 1-6 semester hours**

Prerequisite: Graduate standing and consent of instructor.

**CRIMIN 6550 Seminar in Criminology and Criminal Justice: 3 semester hours**

Prerequisites: Graduate standing and CRIMIN 5415, CRIMIN 6400, and CRIMIN 6405 or consent of the instructor. Research and policy approaches to the study of criminology and criminal justice. Class may be repeated for credit when the subject matter is different.

**CRIMIN 7499 Ph.D. Dissertation Research: 1-6 semester hours**

To be arranged.

## Courses

**CRIMIN 1100 Introduction To Criminology And Criminal Justice: 3 semester hours**

Introduction to the basic concepts and approaches in the study of criminology and criminal justice. The major components of the criminal justice system are examined.

**CRIMIN 1110 Theories Of Crime: 3 semester hours**

Prerequisite: CRIMIN 1100 Introduction to major theoretical approaches to the study of crime and justice.

**CRIMIN 1120 Criminal Law: 3 semester hours**

Prerequisite: CRIMIN 1100. Analysis of substantive criminal law, evidence and judicial procedure.

**CRIMIN 1150 Violence In America: 3 semester hours**

Prerequisites: CRIMIN 1100 or consent of instructor. Overview of patterns and correlates of violence in America. Emphasis on the variety of forms of violent crimes, such as murder, assault, robbery, rape, and gang violence. Includes an examination of violence as a response to lawbreaking.

**CRIMIN 1200 Foundations Of Law: An Introduction To Legal Studies: 3 semester hours**

Same as POL SCI 1200. As a broad liberal-arts approach to the study of law, this course is designed to familiarize students with legal ideas, legal reasoning, and legal processes. It also provides comparative and historical perspectives on law that will help explain legal diversity and legal change. Finally, it offers opportunities to explore some of the persistent issues in law and legal theory: for example, issues about the sources of law, the responsibilities of the legal profession, or the relative merits of the adversary system.

**CRIMIN 2130 Criminal Justice Policy: 3 semester hours**

Prerequisite: CRIMIN 1100 Introduction to criminal justice policy making, planning and implementation.

**CRIMIN 2180 Alcohol, Drugs And Society: 3 semester hours**

Same as SOC 2180. Prerequisite: SOC 1010 or PSYCH 1003. This course examines the medical, legal and social aspects of alcohol and drug use. Medical aspects considered include treatment approaches and the role of Physicians in controlling such behavior. In the legal realm, past and present alcohol and drug laws are explored. Cultural and social influences on alcohol and drug use are discussed.

**CRIMIN 2210 Research Methods In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: CRIMIN 1100. Examination of basic methods of research design, measurement and data collection in criminology and criminal justice.

**CRIMIN 2220 Statistical Analysis In Criminology And Criminal Justice: 4 semester hours**

Prerequisites: CRIMIN 2210 and the university math proficiency requirement. An introduction to techniques of quantitative data analysis. Both descriptive and inferential statistics are applied to problems in criminology and criminal justice. Includes a one hour lab. Courses with a CRIMIN 2220 prerequisite require a minimum grade of "C" to be earned by the student in this course.

**CRIMIN 2240 Policing: 3 semester hours**

Prerequisite: CRIMIN 1100 Overview of current and historical perspectives on the function of American policing. Emphasis on the management of police organizations and relationships with the community.



**CRIMIN 2250 Courts: 3 semester hours**

Prerequisite: CRIMIN 1100. This course provides an overview of current and historical perspectives on the function of the American courts. Emphasis on the dynamics of courthouse justice, with special attention placed on the roles of the prosecutors, judges, defense attorneys, defendants, victims, and jurors regarding the decisions that impact the adjudication process.

**CRIMIN 2251 Youth Gangs: 3 semester hours**

Prerequisites: CRIMIN 1100 or consent of instructor. This course provides an overview of research and policy concerning youth gangs. Definitional and methodological issues will be examined, along with both qualitative and quantitative research. Topics include: the causes of gangs and gang involvement; and variations by race, gender, time period, and geography.

**CRIMIN 2252 Philosophical Foundations Of Criminal Justice: 3 semester hours****CRIMIN 2260 Corrections: 3 semester hours**

Prerequisite: CRIMIN 1100. Examination of correctional philosophies and practices. Emphasis on the history of corrections, the formal and informal organization of correctional facilities, inmate rights, and correctional alternatives.

**CRIMIN 3043 History Of Crime And Justice: 3 semester hours**

Same as HIST 3043. Prerequisites: Junior standing or consent of instructor. The analysis development, and change in philosophies and responses to crime. Emphasis on major forms and definitions of crime, the emergence of modern policing, the birth of the prison and the juvenile court.

**CRIMIN 3209 Forensic Anthropology: 4 semester hours**

Same as ANTHRO 3209. Prerequisites: ANTHRO 1005 or BIOL 1102 or consent of instructor. Students learn basic human dental and skeletal anatomy and the methods used by biological anthropologists and archaeologists to collect and analyze human skeletal remains, including how to age and sex skeletal remains, identify ethnic markers, determine stature and handedness, and identify the presence of trauma and/or pathology. Also covers the role of the forensic anthropologist in crime scene investigations and human rights issues. In the weekly lab section students will have an opportunity for hands-on application of techniques to skeletal remains.

**CRIMIN 3230 Crime Prevention: 3 semester hours**

Prerequisites: Junior standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Examination of situational, social, and legislative approaches to the prevention of crime and delinquency. Emphasis on theories, implementation, and consequences of these approaches.

**CRIMIN 3270 Juvenile Justice And Delinquency: 3 semester hours**

Prerequisite: Junior Standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Examination of formal and informal responses to juvenile delinquency. Emphasis on theories of delinquency and the decision-making processes of police, court and probation officials.

**CRIMIN 3280 Internship In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: Junior standing. Internship under faculty supervision in criminal justice setting. May be repeated for one credit.

**CRIMIN 3290 Special Readings: 1-6 semester hours**

Prerequisite: Consent of instructor. Individualized study, under regular faculty supervision, designed to meet particular educational needs of selected students.

**CRIMIN 3305 Comparative Criminology and Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Analysis of crime and criminal justice systems in selected cultures. Emphasis on the ways in which these cultures define and respond to criminal behavior. Fulfills CRIMIN diversity requirement.

**CRIMIN 3310 Computers In Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Use of computers, data base systems, and software applications in research and professional practice.

**CRIMIN 3320 The Death Penalty: 3 semester hours**

Prerequisite: CRIMIN 1100 An examination of the history, application, and attitudes toward the death penalty.

**CRIMIN 3330 White Collar Crime: 3 semester hours**

Prerequisites: Junior Standing, CRIMIN 1120, CRIMIN 2130, CRIMIN 2220, and ENGL 3100, or consent of instructor. This course examines the physical and financial harm caused by crimes committed by corporations and business employees. Theoretical and empirical perspectives will be examined. Topics include: definitional issues and ethics; public perceptions; social, political and economic impact; and legal decision-making.

**CRIMIN 3345 Rights Of The Offender: 3 semester hours**

Prerequisites: CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Analysis of the objectives of criminal law regarding the rights of persons suspected or convicted of crime. Emphasis on rights regarding the police, the court, and in correctional settings.

**CRIMIN 4300 Communities And Crime: 3 semester hours**

Same as SOC 4300. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Analysis of the sources, consequences, and control of crime within communities. Emphasis on social and ecological theories of crime, and on population instability, family structure, and the concentration of poverty as causes of crime.

**CRIMIN 4320 Forms Of Criminal Behavior: 3 semester hours**

Same as SOC 4320. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Examination of major types of criminal behavior including violent, property, public order, and organizational offenses. Emphasis on theories of and responses to these crimes.

**CRIMIN 4325 Gender, Crime, And Justice: 3 semester hours**

Same as SOC 4325 and GS 4325. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220 and ENGL 3100 or consent of instructor. Analysis of the role of gender in crime and in the justice system. Emphasis on gender differences in crime commission, criminal processing, and the employment of women in criminal justice agencies. Fulfills CRIMIN diversity requirement.

**CRIMIN 4330 Violence Against Women: 3 semester hours**

Same as GS 4330. Prerequisites: Junior Standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. This course examines the nature, extent, causes and consequences of various types of violence against women, including rape, sexual assault, stalking, and intimate partner violence. Criminal justice policy and practice regarding violence against women are also examined.

**CRIMIN 4335 Probation And Parole: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, CRIMIN 2260, and ENGL 3100, or consent of instructor. Analysis of alternatives to incarceration and postincarceration supervision. emphasis on diversion, restitution, and community reintegration.

**CRIMIN 4340 Race, Crime, And Justice: 3 semester hours**

Same as SOC 4340. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Analysis of the involvement of racial minorities in crime and the criminal justice system. Emphasis on group differences in offending, processing, victimization, and employment in criminal justice agencies. Fulfills CRIMIN diversity requirement.

**CRIMIN 4350 Victimology: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Analysis of major perspectives on victimization. Emphasis on patterns of victimization, the role of victims in the generation of crime, and the experience of the victim in the criminal justice system.

**CRIMIN 4380 Special Topics In Criminology And Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. In-depth study of a selected topic in criminology and criminal justice.

**CRIMIN 4390 Seminar In Criminology And Criminal Justice: 3 semester hours**

Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. In this capstone course, students demonstrate the ability to work independently, integrating theory and research in criminology and criminal justice in a major paper supervised by the instructor.

**CRIMIN 4487 Philosophy Of Law: 3 semester hours**

Same As PHIL 4487. Prerequisites: CRIMIN 1100 and 3 hours of philosophy and/or consent of instructor. An intensive study of recent philosophical debate about such issues as the authority of law, legal equality and justice, legal responsibility, self-determination and privacy, and legal punishment.

**CRIMIN 5415 Foundations Of Criminological Theory: 3 semester hours**

Prerequisites: Graduate standing and consent of instructor. Examination of the history of criminological thought incorporating the major works of such theorists as Bentham, Beccaria, Marx, Durkheim, Lombroso, Sutherland and Merton.

**CRIMIN 5533 Philosophy Of Law: 3 semester hours**

Same as PHIL 5533. Prerequisite: Graduate standing or consent of instructor. Examination of origins of law and the basis for legal obligation. Specific consideration of the justification of punishment, morality and law, and legal reasoning.

**CRIMIN 6400 Proseminar: 3 semester hours**

Prerequisite: Graduate standing. (Must be taken in the first Semester). A critical examination of theoretical, methodological and policy issues in criminology and criminal justice. Focus is on the nature of crime, policing, pretrial processes, adjudication and corrections.

**CRIMIN 6405 Methods: 3 semester hours**

Prerequisite: Graduate standing and consent of instructor. Examination of basic methods for research design and data collection. Topics include participant observation and interviewing, survey research, aggregate data analysis, and experimental design.

**CRIMIN 6410 Statistical Applications In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: CRIMIN 6405 Examination of elementary principles of quantitative analysis and their application to crime and justice problems. Topics include univariate, bivariate and multivariate procedures for discrete and continuous data, and a comprehensive introduction to ordinary least squares regression.

**CRIMIN 6420 Contemporary Criminal Theories: 3 semester hours**

Prerequisite: CRIMIN 5415. Examination of contemporary explanations of crime and criminal justice. Theories covered include strain, control, cultural, labeling, conflict, as well as more recent attempts at theoretical integration and multidisciplinary integration.

**CRIMIN 6422 Law Courts, And Public Policy: 3 semester hours**

Prerequisite: Graduate Standing. (Same as Political Science 6422) An analysis of the role of courts as policymaking institutions and the law as policy. We will explore the role of judges as policymakers, consider the attributes of courts, (both trial and appellate), that make them appropriate yet limited targets for advocates of reform, and the implementation and impact of court decisions. We will consider recent examples of judicial involvement in state and national policymaking. In addition, we will examine the role of lawyers and interest groups in selecting litigation rather than alternative political processes for policy change.

**CRIMIN 6436 Comparative Criminology: 3 semester hours**

Prerequisite: Graduate Standing Examination of crime and criminal justice systems in world perspective.

**CRIMIN 6440 Nature Of Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of patterns and correlates of crime at the individual, situational, and aggregate levels. Topics include definitions of crime, offending topologies, and criminal careers.

**CRIMIN 6441 Juvenile Delinquency: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of youth crime and juvenile offenders. Topics include definitions of juvenile crime, and theories of juvenile crime causation in the U.S.

**CRIMIN 6442 Communities And Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the trends and sources of crime and social disorder across communities. The course emphasizes relationships among crime, neighborhood change, neighborhood responses to crime, and public policies.

**CRIMIN 6443 Violent Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the sources and patterns of violent offending across time and space. Topics include conceptions and typologies of violent crimes and offenders, victim-offender relationships, and efforts to predict and control violent offending.

**CRIMIN 6445 Property Crime: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the sources and patterns of property offending across time and space. Topics include conceptions and typologies of property crimes and offenders, victim-offender relationships, and efforts to predict and control property offending.

**CRIMIN 6446 Sex Crime: 3 semester hours**

Same as GS 6446. Prerequisites: Graduate standing and consent of instructor. Examination of consensual and non-consensual sexual offending. Topics include historical development of laws regulating sexual conduct, controversies surrounding the application of these laws, and the nature and distribution of sexual offenses.

**CRIMIN 6448 Victimization: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the risks and consequences of crime for its victims. Issues considered include victim-offender relationships, characteristics of victims, the nature of the injuries they experience and criminal justice procedures that involve them.

**CRIMIN 6450 Criminal Justice Process And Policy: 3 semester hours**

Prerequisite: Graduate standing An analysis of criminal justice as a network of decisions and complex organizations. Topics include sources of criminal justice policy, policy agendas, implementation and evaluation.

**CRIMIN 6452 The Police: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Historical, social and political analysis of policing in America. Examination of federal, state, county and municipal agencies.

**CRIMIN 6454 Corrections: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of the history, forms, and functions of correctional philosophies, institutions, programs and policies. Topics include the structure and functions of prisons and jails, community corrections, intermediate sanctions, and the growth of correctional control in modern society.

**CRIMIN 6465 Qualitative Research Design: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of participant observation and informant and respondent interviewing. Topics include gaining access, sampling, data collection and analysis, and legal and ethical concerns.

**CRIMIN 6470 Quantitative Research Design: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Examination of experimental, longitudinal, and cross-sectional designs. Sources of data, sampling procedures, operational definitions, and issues of reliability are also discussed.

**CRIMIN 6471 Evaluating Criminal Justice Interventions: 3 semester hours**

Prerequisites: CRIMIN 6405 and CRIMIN 6410 This course examines a broad range of interventions designed to prevent crime or improve some aspect of the criminal justice system. The validity, reliability, and feasibility of differing intervention designs are addressed. Several major criminal justice evaluations are discussed.

**CRIMIN 6480 Multivariate Statistics In Criminology: 3 semester hours**

Prerequisites: CRIMIN 6405 and CRIMIN 6470 Introduction to the general linear model with applications to multivariate problems in criminal justice and criminology. Topics include advanced ordinary least squares, causal modeling, time series analysis, simultaneous equations, and analysis of limited dependent variables.

**CRIMIN 6485 Directed Readings/Research In Criminology And Criminal Justice: 1-6 semester hours**

Prerequisite: Consent Of Instructor. Directed Reading And Research, Under Faculty Supervision, Designed To Meet Particular Educational Needs Of Selected Students.

**CRIMIN 6495 Internship In Criminology And Criminal Justice: 3 semester hours**

Prerequisite: Graduate Standing Or Consent Of Instructor. Supervised Placements With Criminal Justice Agencies. Designed Primarily For Students With Limited Field Experience.

**CRIMIN 6498 M A Thesis Research: 1-6 semester hours**

Prerequisite: Graduate standing and consent of instructor.

**CRIMIN 6550 Seminar in Criminology and Criminal Justice: 3 semester hours**

Prerequisites: Graduate standing and CRIMIN 5415, CRIMIN 6400, and CRIMIN 6405 or consent of the instructor. Research and policy approaches to the study of criminology and criminal justice. Class may be repeated for credit when the subject matter is different.

**CRIMIN 7499 Ph.D. Dissertation Research: 1-6 semester hours**

To be arranged.

## English for Academic Purposes

### Courses

**EAP 3202 Listening And Speaking Skills: 3 semester hours**

Prerequisites: Placement by examination. This intermediate-level course is for students who are non-native speakers of English to gain skills in listening and speaking for both conversational and academic situations. Students improve comprehensive and discrete listening skills, note-taking skills, vocabulary use, discussion skills, and understanding of American culture.

**EAP 3203 Reading And Writing I: 3 semester hours**

Prerequisites: Minimum TOEFL Score or 500 or placement by examination. In this course International students develop fluency in their reading and writing skills in American English. This course consists of reading a variety of types of written texts, vocabulary building, organization in writing from the paragraph to essay, techniques for generating ideas, grammar use and editing. This course does not count toward a degree.

**EAP 3205 Grammar for Speaking and Writing I: 3 semester hours**

Prerequisites: Placement by examination. A course for non-native speakers of English who have already studied basic English grammar. The content covers intensive study of verb tenses; their forms, meanings and integrated use; other grammatical structures; analyses of language use in written texts; and applied use in both speaking and writing to increase communicative competence.

**EAP 4301 Advanced EAP Conversation and Pronunciation: 3 semester hours**

Prerequisites: Placement by examination or permission of instructor. Designed for non-native speakers who need to improve their fluency and pronunciation in American English. Conversation strategies, oral presentations and extensive practice to modify accent are included. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4302 Language Skills for Academic Success: 3 semester hours**

Prerequisites: Placement by examination or successful completion of EAP 3202. Designed for the student who is a non-native speaker of English to enhance academic language skills needed for the American university. This course includes readings and lectures from various disciplines, strategies for effective listening comprehension and note-taking, vocabulary building exercises, exam preparation, and participation in class discussions. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4303 Reading and Writing II: 3 semester hours**

Prerequisites: Placement by examination or successful completion of EAP 3203. This course prepares students for ENGL 1100 or ENGL 1110. Activities targeting writing skills include the organization of essays, rhetorical forms and their structural organization, revision of ideas, research techniques, grammar use and editing. To develop reading skills, students read articles and a novel, practice reading strategies and learn how to summarize articles. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4305 Grammar for Speaking and Writing II: 3 semester hours**

Prerequisites: Placement by examination or successful completion of EAP 3205. This course is for students who are non-native speakers of English who need review and applied practice of English grammar for oral and written work. This course may count towards undergraduate elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4307 Advanced Speaking Skills: 3 semester hours**

Prerequisites: EAP 4301, placement or consent of instructor. Bulletin description: Designed for non-native speakers who have fluency in speaking English but need to modify their accent to be better understood and feel confident expressing ideas. Course includes review and practice of the pronunciation of the consonants and vowels in American English; accent modification achieved through extensive practice of stress, rhythm and intonation patterns; and the development of speaking skills through presentations. This course may count towards elective credit towards graduation in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4390 Special Readings: 1-3 semester hours**

Prerequisites: Consent of the instructor. Independent study through readings, reports, and conferences. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4603 Research Paper Writing Workshop For International Students: 3 semester hours**

Prerequisites: Successful completion of EAP 4303 or placement by examination. Bulletin description: Organized as a workshop, this class focuses on the process of research paper writing, from choosing a topic to the final research paper. Class activities include using library resources for research, applying critical thinking skills, synthesizing source material, avoiding plagiarism, and using appropriate MLA or APA format. Editing for grammatical accuracy and word choice is included as necessary. Class enrollment is limited to 12 students. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 5400 Seminar for International Teaching Assistants: 1-3 semester hours**

Prerequisites: Consent of the department. Focus is on presentation skills, strategies to facilitate communication, and cultural differences in education. Students develop effective teaching skills through class presentations. Not applicable to graduate degree program.

**Courses****EAP 3202 Listening And Speaking Skills: 3 semester hours**

Prerequisites: Placement by examination. This intermediate-level course is for students who are non-native speakers of English to gain skills in listening and speaking for both conversational and academic situations. Students improve comprehensive and discrete listening skills, note-taking skills, vocabulary use, discussion skills, and understanding of American culture.

**EAP 3203 Reading And Writing I: 3 semester hours**

Prerequisites: Minimum TOEFL Score of 500 or placement by examination. In this course International students develop fluency in their reading and writing skills in American English. This course consists of reading a variety of types of written texts, vocabulary building, organization in writing from the paragraph to essay, techniques for generating ideas, grammar use and editing. This course does not count toward a degree.

**EAP 3205 Grammar for Speaking and Writing I: 3 semester hours**

Prerequisites: Placement by examination. A course for non-native speakers of English who have already studied basic English grammar. The content covers intensive study of verb tenses; their forms, meanings and integrated use; other grammatical structures; analyses of language use in written texts; and applied use in both speaking and writing to increase communicative competence.

**EAP 4301 Advanced EAP Conversation and Pronunciation: 3 semester hours**

Prerequisites: Placement by examination or permission of instructor. Designed for non-native speakers who need to improve their fluency and pronunciation in American English. Conversation strategies, oral presentations and extensive practice to modify accent are included. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4302 Language Skills for Academic Success: 3 semester hours**

Prerequisites: Placement by examination or successful completion of EAP 3202. Designed for the student who is a non-native speaker of English to enhance academic language skills needed for the American university. This course includes readings and lectures from various disciplines, strategies for effective listening comprehension and note-taking, vocabulary building exercises, exam preparation, and participation in class discussions. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4303 Reading and Writing II: 3 semester hours**

Prerequisites: Placement by examination or successful completion of EAP 3203. This course prepares students for ENGL 1100 or ENGL 1110. Activities targeting writing skills include the organization of essays, rhetorical forms and their structural organization, revision of ideas, research techniques, grammar use and editing. To develop reading skills, students read articles and a novel, practice reading strategies and learn how to summarize articles. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4305 Grammar for Speaking and Writing II: 3 semester hours**

Prerequisites: Placement by examination or successful completion of EAP 3205. This course is for students who are non-native speakers of English who need review and applied practice of English grammar for oral and written work. This course may count towards undergraduate elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.



**EAP 4307 Advanced Speaking Skills: 3 semester hours**

Prerequisites: EAP 4301, placement or consent of instructor. Bulletin description: Designed for non-native speakers who have fluency in speaking English but need to modify their accent to be better understood and feel confident expressing ideas. Course includes review and practice of the pronunciation of the consonants and vowels in American English; accent modification achieved through extensive practice of stress, rhythm and intonation patterns; and the development of speaking skills through presentations. This course may count towards elective credit towards graduation in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4390 Special Readings: 1-3 semester hours**

Prerequisites: Consent of the instructor. Independent study through readings, reports, and conferences. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 4603 Research Paper Writing Workshop For International Students: 3 semester hours**

Prerequisites: Successful completion of EAP 4303 or placement by examination. Bulletin description: Organized as a workshop, this class focuses on the process of research paper writing, from choosing a topic to the final research paper. Class activities include using library resources for research, applying critical thinking skills, synthesizing source material, avoiding plagiarism, and using appropriate MLA or APA format. Editing for grammatical accuracy and word choice is included as necessary. Class enrollment is limited to 12 students. This course may count towards elective credit in the Colleges of Business, Arts and Sciences, and Fine Arts and Communication.

**EAP 5400 Seminar for International Teaching Assistants: 1-3 semester hours**

Prerequisites: Consent of the department. Focus is on presentation skills, strategies to facilitate communication, and cultural differences in education. Students develop effective teaching skills through class presentations. Not applicable to graduate degree program.

## Early Childhood Education

### Courses

**ECH ED 3300 Introduction To Early Childhood Education: 3 semester hours**

Prerequisites: Level I. Students will use theoretical bases as well as on site observations to develop an awareness of teaching learning strategies appropriate for the developmental needs of children from birth through age eight. Scheduling, classroom arrangement, and child management practices will be considered. Students will develop their own philosophy of early childhood education.

**ECH ED 3301 Early Childhood Special Education Processes and Trends: 3 semester hours**

Prerequisites: Completion of Level 1 requirements. Bulletin description: Focus on the history and federal laws related to the early childhood special education process. Examination of child development theories and assessment to determine if developmental delays exist. Emphasis on the importance of collaboration between teachers and therapists for service delivery, designing effective transition plans and integrating intervention services into a developmentally appropriate curriculum.

**ECH ED 3303 Curriculum And Practice Laboratory: Infant/Toddler: 1 semester hour**

Classroom experience in infant or toddler classrooms under directions of university personnel, Must be taken concurrently with ECH ED 3313 Curriculum and Practice: Infant/Toddler.

**ECH ED 3304 Curriculum And Practice Laboratory: Preschool: 1 semester hour**

Classroom experience in preschool classrooms under direction of university personnel. Must be taken concurrently with ECH ED 3314 Curriculum and Practice: Preschool.

**ECH ED 3313 Curriculum And Practice: Infant/Toddler: 2 semester hours**

Prerequisites: ECH ED 3300. Design and implementation of integrated curriculum for children from birth to 30 months. Must be taken concurrently with ECH ED 3303.

**ECH ED 3314 Curriculum And Practice: Preschool Education: 2 semester hours**

Prerequisites: ECH ED 3300. Design and implementation of integrated curriculum for the inclusive preschool classroom with emphasis on science, social studies, creative activities and technology. Must be taken concurrently with ECH ED 3304.

**ECH ED 3332 Literacy, Learning and Instruction For The Young Child: 3 semester hours**

Prerequisites: Level I. Attention on the home language and environment of young children as they construct knowledge of print from birth to age eight. Critical examination of the range of opportunities for early literacy learning available to children from economically advantaged and disadvantaged communities. Emphasis on meaningful, culturally, and developmentally appropriate activities for fostering beginning reading and writing. Focus on strategies for involving families and capitalizing on community resources in promoting language and literacy learning for young children. This course may be applied toward a Literacy Minor.

**ECH ED 3350 Child/Family and Education and Community Involvement: 3 semester hours**

Prerequisites: ECH ED 3300, Formal Admission to the Teacher Education Program. This course is designed to provide students with the knowledge and skills needed to work successfully with diverse families and family groups in individual and community settings. The focus will be on strengthening adult-child relationships and family-staff relationships in the home, school, and community settings. Family involvement in early childhood programs and sharing information with families will be stressed.

**ECH ED 4315 Curriculum And Practice: Primary Education: 2 semester hours**

Prerequisite: ECH ED 3300. Focuses on planning integrated curriculum for the primary classroom with emphasis on science, social studies, creative activities and technology. Working with parents and parent education emphasized. Lab required.

**ECH ED 4317 Implementation, Evaluation, and Assessment in Early Childhood Education: 3 semester hours**

Prerequisites: Level I and Level II, admission to the teacher education program, ECH ED 3300. Techniques of observing children and using assessment instruments to plan and implement individual program plans for early childhood. Practicum experience required.

**ECH ED 4320 Classroom Management: 3 semester hours**

Same as SEC ED 4320, ELE ED 4320. Prerequisites: Level I and II courses or consent of instructor. Understanding classroom management as the development of engaging instruction that establishes healthy and culturally appropriate teacher-student relationships, builds successful classroom community and enhances student learning. Participants develop a culturally relevant classroom management plan that includes rules, procedures, expected behaviors and uses problem solving strategies to resolve behavior problems. Emphasis is on the teacher developing the social competence of Pre K-12 students within culturally diverse classrooms and engaging families in supportive interactions.

**ECH ED 4348 The Acquisition Of Mathematical and Science Concepts: 3 semester hours**

Prerequisites: Formal admission to the Teacher Education Program, ED PSY 3312, and MATH 1150. Applications of the major theorists to mathematics reasoning and scientific inquiry. Content is appropriate for pre-K to third grade learners. Research and its implications for practice in the areas of logical thinking, pre-number ideas, geometry, topology, arithmetical operations, problem solving, observation, inquiry and documentation are considered.

**ECH ED 4989 Practicum I: Early Childhood Education/Early Childhood Special Education Site Based Experience: 3 semester hours**

Prerequisites: Level I and Level II requirements Bulletin description: This course is an intensive professional development experience (2 days per week) working in a preschool and elementary (as applicable) setting with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to impacting students' achievement for diverse populations and differentiated instruction. Level III methods course assignments may be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Practicum I is taken in the semester immediately preceding Practicum II. Not available for graduate credit .

**ECH ED 4990 Practicum II: Early Childhood Education/Early Childhood Special Education Site Based Experience: 12 semester hours**

Prerequisites: Grade of C or higher in ECH ED 4989 and admission to Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur with two different age levels (infant/toddler; pre-k; or k-3) within preschool and elementary schools. These sites offer settings where classrooms implement inclusion (combined general education and special education) and/or have pull-out resources room setting and may also have self-contained settings where students with complex disabilities are educated exclusively. Not available for graduate credit.

**ECH ED 4991 Student Teaching In Early Childhood Education II: 6 semester hours**

Prerequisites: Level II, ECH ED 3313, ECH ED 3314, ECH ED 4989, Must be taken with ECH ED 4991, and must immediately precede ECH ED 4991 in the semester. Must follow ECH ED 4990 in the same semester. Clinical teaching experience in early childhood education classrooms in the schools under University and school supervision. Assignments will be in different school districts buildings, serving families of different socio-economic and cultural backgrounds, and at different age/grade levels from those of the Ech Ed 4990 assignments. Required of all majors in early childhood education. Not available for graduate credit.

**ECH ED 5989 Practicum I: Early Childhood/Early Childhood Special Education Site Based Experience: 2 semester hours**

Prerequisites: Level I and Level II requirements. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, classroom management. Particular emphasis will be given to impacting students' achievement for diverse populations and differentiated instruction. Level III methods courses assignments may be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Activities to acquire research skills are included. Practicum I is taken in the semester immediately preceding Practicum II.

**ECH ED 5990 Practicum II: Early Childhood/Early Childhood Special Education Site Based Experience: 8 semester hours**

Prerequisites: Grade of B- or higher in ECH ED 5989 and admission to Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur with two different age levels (infant/toddler; pre-k; or k-3) within preschool and elementary schools. These sites offer settings where classrooms implement inclusion (combined general education and special education) and/or have pull-out resources room setting and may also have self-contained settings where students with complex disabilities are educated exclusively. Teacher candidates collect data for a research project.

**ECH ED 6321 Parent And Community Resources In Early Childhood Education: 3 semester hours**

Prerequisite: Graduate Standing Competencies for working with parents and community agencies will be developed through a study of community and community resources. Procedures for parent participation and use of service agencies in the education of all young children, including those with special needs, will be examined.

**ECH ED 6412 Foundations Of Early Childhood Education: 3 semester hours**

Prerequisite: A course in child psychology or equivalent. A study of the various types of early childhood programs and the philosophy upon which they are based. Attention will also be directed to the implementation of such programs, problems of parent involvement and the social environment of the children.

**ECH ED 6413 Educational Role Of Play: 3 semester hours**

Prerequisites: ECH ED 3300 or Equivalent. Emphasizes play as a constructive process with application to cognitive and social development. Special attention to facilitating play in early childhood classrooms.

**ECH ED 6415 Organization And Development Of Early Childhood Programs: 3 semester hours**

Prerequisites: ECH ED 3300 or equivalent. Strategies for the effective organization and development of programs for children from diverse cultures, ages birth through age eight years, will be studied. Research and theory in funding and budgeting, staffing and professional development, and selection, development, and assessment of program curriculum will be emphasized. Long-range planning for program stability and involvement in advocacy issues will be covered.

**ECH ED 6490 Internship: 1-10 semester hours**

Prerequisite: consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation and related professional activities.

**ECH ED 6497 Problems: 1-10 semester hours**

Prerequisite: Graduate standing. Individual study on topics pertaining to early childhood education.

## Courses

### ***ECH ED 3300 Introduction To Early Childhood Education: 3 semester hours***

Prerequisites: Level I. Students will use theoretical bases as well as on site observations to develop an awareness of teaching learning strategies appropriate for the developmental needs of children from birth through age eight. Scheduling, classroom arrangement, and child management practices will be considered. Students will develop their own philosophy of early childhood education.

### ***ECH ED 3301 Early Childhood Special Education Processes and Trends: 3 semester hours***

Prerequisites: Completion of Level 1 requirements  
Bulletin description: Focus on the history and federal laws related to the early childhood special education process. Examination of child development theories and assessment to determine if developmental delays exist. Emphasis on the importance of collaboration between teachers and therapists for service delivery, designing effective transition plans and integrating intervention services into a developmentally appropriate curriculum.

### ***ECH ED 3303 Curriculum And Practice Laboratory: Infant/Toddler: 1 semester hour***

Classroom experience in infant or toddler classrooms under directions of university personnel. Must be taken concurrently with ECH ED 3313 Curriculum and Practice: Infant/Toddler.

### ***ECH ED 3304 Curriculum And Practice Laboratory: Preschool: 1 semester hour***

Classroom experience in preschool classrooms under direction of university personnel. Must be taken concurrently with ECH ED 3314 Curriculum and Practice: Preschool.

### ***ECH ED 3313 Curriculum And Practice: Infant/Toddler: 2 semester hours***

Prerequisites: ECH ED 3300. Design and implementation of integrated curriculum for children from birth to 30 months. Must be taken concurrently with ECH ED 3303.

### ***ECH ED 3314 Curriculum And Practice: Preschool Education: 2 semester hours***

Prerequisites: ECH ED 3300. Design and implementation of integrated curriculum for the inclusive preschool classroom with emphasis on science, social studies, creative activities and technology. Must be taken concurrently with ECH ED 3304.

### ***ECH ED 3332 Literacy, Learning and Instruction For The Young Child: 3 semester hours***

Prerequisites: Level I. Attention on the home language and environment of young children as they construct knowledge of print from birth to age eight. Critical examination of the range of opportunities for early literacy learning available to children from economically advantaged and disadvantaged communities. Emphasis on meaningful, culturally, and developmentally appropriate activities for fostering beginning reading and writing. Focus on strategies for involving families and capitalizing on community resources in promoting language and literacy learning for young children. This course may be applied toward a Literacy Minor.

### ***ECH ED 3350 Child/Family and Education and Community Involvement: 3 semester hours***

Prerequisites: ECH ED 3300, Formal Admission to the Teacher Education Program. This course is designed to provide students with the knowledge and skills needed to work successfully with diverse families and family groups in individual and community settings. The focus will be on strengthening adult-child relationships and family-staff relationships in the home, school, and community settings. Family involvement in early childhood programs and sharing information with families will be stressed.

### ***ECH ED 4315 Curriculum And Practice: Primary Education: 2 semester hours***

Prerequisite: ECH ED 3300. Focuses on planning integrated curriculum for the primary classroom with emphasis on science, social studies, creative activities and technology. Working with parents and parent education emphasized. Lab required.

### ***ECH ED 4317 Implementation, Evaluation, and Assessment in Early Childhood Education: 3 semester hours***

Prerequisites: Level I and Level II, admission to the teacher education program, ECH ED 3300. Techniques of observing children and using assessment instruments to plan and implement individual program plans for early childhood. Practicum experience required.

### ***ECH ED 4320 Classroom Management: 3 semester hours***

Same as SEC ED 4320, ELE ED 4320. Prerequisites: Level I and II courses or consent of instructor. Understanding classroom management as the development of engaging instruction that establishes healthy and culturally appropriate teacher-student relationships, builds successful classroom community and enhances student learning. Participants develop a culturally relevant classroom management plan that includes rules, procedures, expected behaviors and uses problem solving strategies to resolve behavior problems. Emphasis is on the teacher developing the social competence of Pre K-12 students within culturally diverse classrooms and engaging families in supportive interactions.

### ***ECH ED 4348 The Acquisition Of Mathematical and Science Concepts: 3 semester hours***

Prerequisites: Formal admission to the Teacher Education Program, ED PSY 3312, and MATH 1150. Applications of the major theorists to mathematics reasoning and scientific inquiry. Content is appropriate for pre-K to third grade learners. Research and its implications for practice in the areas of logical thinking, pre-number ideas, geometry, topology, arithmetical operations, problem solving, observation, inquiry and documentation are considered.

### ***ECH ED 4989 Practicum I: Early Childhood Education/Early Childhood Special Education Site Based Experience: 3 semester hours***

Prerequisites: Level I and Level II requirements  
Bulletin description: This course is an intensive professional development experience (2 days per week) working in a preschool and elementary (as applicable) setting with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to impacting students' achievement for diverse populations and differentiated instruction. Level III methods course assignments may be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Practicum I is taken in the semester immediately preceding Practicum II. Not available for graduate credit .



***ECH ED 4990 Practicum II: Early Childhood Education/Early Childhood Special Education Site Based Experience: 12 semester hours***

Prerequisites: Grade of C or higher in ECH ED 4989 and admission to Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur with two different age levels (infant/toddler; pre-k; or k-3) within preschool and elementary schools. These sites offer settings where classrooms implement inclusion (combined general education and special education) and/or have pull-out resources room setting and may also have self-contained settings where students with complex disabilities are educated exclusively. Not available for graduate credit.

***ECH ED 4991 Student Teaching In Early Childhood Education II: 6 semester hours***

Prerequisites: Level II, ECH ED 3313, ECH ED 3314, ECH ED 4989, Must be taken with ECH ED 4991, and must immediately precede ECH ED 4991 in the semester. Must follow ECH ED 4990 in the same semester. Clinical teaching experience in early childhood education classrooms in the schools under University and school supervision. Assignments will be in different school districts buildings, serving families of different socio-economic and cultural backgrounds, and at different age/grade levels from those of the Ech Ed 4990 assignments. Required of all majors in early childhood education. Not available for graduate credit.

***ECH ED 5989 Practicum I: Early Childhood/Early Childhood Special Education Site Based Experience: 2 semester hours***

Prerequisites: Level I and Level II requirements. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, classroom management. Particular emphasis will be given to impacting students' achievement for diverse populations and differentiated instruction. Level III methods courses assignments may be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Activities to acquire research skills are included. Practicum I is taken in the semester immediately preceding Practicum II.

***ECH ED 5990 Practicum II: Early Childhood/Early Childhood Special Education Site Based Experience: 8 semester hours***

Prerequisites: Grade of B- or higher in ECH ED 5989 and admission to Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur with two different age levels (infant/toddler; pre-k; or k-3) within preschool and elementary schools. These sites offer settings where classrooms implement inclusion (combined general education and special education) and/or have pull-out resources room setting and may also have self-contained settings where students with complex disabilities are educated exclusively. Teacher candidates collect data for a research project.

***ECH ED 6321 Parent And Community Resources In Early Childhood Education: 3 semester hours***

Prerequisite: Graduate Standing Competencies for working with parents and community agencies will be developed through a study of community and community resources. Procedures for parent participation and use of service agencies in the education of all young children, including those with special needs, will be examined.

***ECH ED 6412 Foundations Of Early Childhood Education: 3 semester hours***

Prerequisite: A course in child psychology or equivalent. A study of the various types of early childhood programs and the philosophy upon which they are based. Attention will also be directed to the implementation of such programs, problems of parent involvement and the social environment of the children.

***ECH ED 6413 Educational Role Of Play: 3 semester hours***

Prerequisites: ECH ED 3300 or Equivalent. Emphasizes play as a constructive process with application to cognitive and social development. Special attention to facilitating play in early childhood classrooms.

***ECH ED 6415 Organization And Development Of Early Childhood Programs: 3 semester hours***

Prerequisites: ECH ED 3300 or equivalent. Strategies for the effective organization and development of programs for children from diverse cultures, ages birth through age eight years, will be studied. Research and theory in funding and budgeting, staffing and professional development, and selection, development, and assessment of program curriculum will be emphasized. Long-range planning for program stability and involvement in advocacy issues will be covered.

***ECH ED 6490 Internship: 1-10 semester hours***

Prerequisite: consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation and related professional activities.

***ECH ED 6497 Problems: 1-10 semester hours***

Prerequisite: Graduate standing. Individual study on topics pertaining to early childhood education.

## Economics

### Courses

***ECON 1000 Introduction To The American Economy: 3 semester hours***

Introduction to economic analysis and problems through an examination of the development and operations of the American economy; study of its evolution, institutions and principal problems. ECON 1000 does not substitute for ECON 1001 or ECON 1002. Students who have already completed ECON 1001 or ECON 1002 may not take ECON 1000 for credit.

***ECON 1001 Principles Of Microeconomics: 3 semester hours***

Prerequisite: MATH 1030. Introduction to the determinants of household demand, production and cost, and market prices. Applies the principles of individual decision-making behavior to understanding goods, services and resource markets.

***ECON 1002 Principles Of Macroeconomics: 3 semester hours***

Prerequisite: MATH 1030 and ECON 1001. Introduction to the determination of levels of and changes in aggregate income, output, employment and prices. Applies economic principles of choice to the formulation and achievement of public policies that affect national employment, income distribution, and economic growth.

***ECON 1003 Microeconomics In The News: A Virtual Classroom: 1 semester hour***

Prerequisites: ECON 1000 or ECON 1001 (may be taken concurrently). This course uses a virtual chatroom to host one hour of discussion weekly about current news events with microeconomic content. News articles will focus on business, public policy, and individual choices that can be understood within a microeconomics framework. Chatroom can be accessed from any location on or off-campus - with internet access.



***ECON 1004 Macroeconomics In The News: A Virtual Classroom: 1 semester hour***

Prerequisite: ECON 1002 (may be taken concurrently) This course uses a virtual chatroom to host one hour of discussion, weekly, about current news events with macroeconomic content. News articles will focus on macroeconomic phenomena - e.g., interest rates, the global economy, the Federal Reserve and public policy decisions - that can be understood within a macroeconomics framework. Chatroom can be accessed from any location - on or off-campus - with internet access.

***ECON 1005 Family Economics and Household Development: 3 semester hours***

Provides social service professionals that work with low income individuals and families with an understanding of the principles of personal financial management. Case studies are used to apply course content and to develop training strategies for clients to improve household financial management. The role of financial institutions and government policies as well as their impact on low income families is also examined. Resources to use with clients will be identified. ECON 1005 does not count toward a major or minor in Economics.

***ECON 1500 Entertainment Economics: The Movie Industry: 3 semester hours***

Same as MEDIA ST 1500. This survey course examines the interrelationships between economics and the movie industry. It explores the impact of economic factors on the production, distribution and exhibition of movies, focusing on the rise and fall of the studio system, role of technological change in the evolution of cinematography and the movie marketplace, financing and market segmentation, globalization and changing industrial structure within which films are produced. To the extent that movies reflect and contribute to popular economic perspectives, this course also evaluates the soundness of the movie industry's depiction of a variety of economic doctrines. Classes will consist of lecture, discussion, and brief film screenings. This course does not count towards the hours required for an economics major.

***ECON 2410 Work, Families, And Public Policy: 3 semester hours***

Same as GS 2410. Prerequisites: ECON 1000 or ECON 1001. This course compares the economic behavior of women and men in both the labor market and the household. Topics include: the family as an economic (production) unit, gender differences in labor force participation, occupations and earnings; the effectiveness of human capital theory and labor market discrimination in explaining the male-female wage gap; remedies for reducing the wage gap; family structure and economic well-being; and alternative policies to alleviate poverty. Students who have completed ECON 3400 may not take ECON 2410 for credit.

***ECON 2610 The Economics Of Professional Sports: 3 semester hours***

Prerequisites: ECON 1000 or ECON 1001 or consent of instructor This course will survey the economic organization of professional sports team industries and the relationship of sports teams to their employees, fans, and governments. Economic issues relating to salaries and labor disputes, monopoly practices, cartels and pricing, team location decisions, and public subsidies for professional sports teams will be analyzed.

***ECON 2800 History Of American Economic Development: 3 semester hours***

Same as HIST 2800. Prerequisites: ECON 1000 or ECON 1001 or consent of instructor. Uses economic concepts to explain historical developments in the American economy, beginning with the hunter-gatherers who crossed the Bering land bridge around 12,000 BC. Main topics include the Native American economies, European exploration and conquest, the colonial economies, indentured servitude, the American Revolution, the US Constitution, westward expansion, transportation, the Industrial Revolution, state banking and free banking, slavery, the Civil War, post-bellum agriculture, the rise of big business and anti trust, banking panics, the Federal Reserve Act, the First and Second World Wars, the New Deal, and the growth of government in the postwar economy.

***ECON 3001 Intermediate Microeconomics: 3 semester hours***

Prerequisite: MATH 1030 and ECON 1001. Analysis of prices in terms of equilibrium of the business firm and consumer demand in markets of varying degrees of competition.

***ECON 3002 Intermediate Macroeconomics: 3 semester hours***

Prerequisite: MATH 1030, ECON 1001 and ECON 1002; ECON 3200 is recommended. Study of national income, expenditure and the forces determining the level of economic activity. Special emphasis on the theory of income determination and its application to public policy.

***ECON 3003 Game Theory And Strategic Decision Making: 3 semester hours***

Prerequisites: ECON 1001. When the best course of action depends on the decisions made by others, strategy becomes important. Game theory provides the tools for analyzing such strategic decision making. Strategic behavior is analyzed in the context of business, logistics, biology, war, government, politics, and everyday life. A wide variety of in-class experiments are used to illustrate key concepts.

***ECON 3052 Microeconomics For The School Curriculum: 1-3 semester hours***

Prerequisite: Junior standing. Analysis of market forces, with emphasis on business firms, households, and productive-factor markets, price determination and resource allocation. Special reference to topics included in elementary and secondary school social science curricula. ECON 3052 may not be used by Economics majors to meet degree requirements.

***ECON 3055 Economic Issues For The School Curriculum: 1-3 semester hours***

Prerequisites: Junior standing and consent of instructor. An analysis of selected economic issues appropriate to instruction in secondary and elementary schools. May be taken more than once for credit, provided the topic of the course is different each time. May not normally be used by economics majors to meet degree requirements. This course does not fulfill the undergraduate economics requirement for education majors.

***ECON 3100 Economic Statistics: 3 semester hours***

Prerequisite: MATH 1030, ECON 1001, and ECON 1002. Introduction to economic data sources, data interpretation and statistical inference as used in economic analysis. Emphasizes the testing of economic hypotheses and the development and estimation of economic models. Introduces the use of statistical software used in economics.

***ECON 3200 Money, Banking And Monetary Theory: 3 semester hours***

Prerequisites: ECON 1001 and ECON 1002. Factors influencing bank reserves and the money supply. Ability of the Federal Reserve System and the Treasury to control these factors. Introduction to monetary theory: integration of monetary phenomena with national income theory. Analysis of current policy issues.

**ECON 3300 International Economic Analysis: 3 semester hours**

Prerequisite: ECON 1001. Introduction to the theories of international trade and factor movements including determinants of trade, the effects of trade on sectors and on overall economic performance, trade restrictions, and balance of payments and exchange rates. Discussion of current institutions and economic developments in the global economy.

**ECON 3320 Economic Development: 3 semester hours**

Prerequisites: ECON 1001 and ECON 1002. Survey of economic growth as applied to developed and underdeveloped countries. Analysis of development policies with Emphasis on case studies. Case studies may include the United States, Western Europe or Latin America.

**ECON 3400 Labor Economics: 3 semester hours**

Prerequisites: ECON 1001 Examines the labor market in the economy. considers the theories of labor supply, labor demand, and market determination of wages. Other topics include noncompetitive markets, international labor markets, the theory of human capital, compensating wage differentials, labor market discrimination, unions and collective bargaining, unemployment, and poverty and the distribution of income.

**ECON 3450 Labor in the Global Political Economy: 3 semester hours**

This course will examine current issues, trends, and developments which are shaping labor in today's global economy. Students will analyze the shifting balance of power between labor and capital, the role of government, and evaluate the strategic options for workers and unions operating in a global environment. ECON 3450 may not be used by economics majors to meet degree requirements.

**ECON 3500 The Economics of Government Spending and Taxation: 3 semester hours**

Prerequisites: MATH 1030 and ECON 1001. Analysis of the role of government expenditures and taxation. Topics include: (1) analysis of public goods and externalities, models of collective choice, elements of benefit-cost analysis the theory of bureaucracy, governments as agents in markets; and (2) analysis of the economic role of governments, subsidies and taxes in the federal system, criteria for tax evaluation, the nature of tax legislation, private decision making under different tax institutions, and government borrowing.

**ECON 3600 Market Structure, Strategy, and Pricing: 3 semester hours**

Prerequisite: ECON 1001. A theoretical and empirical analysis of the actions of firms under alternative forms of market organization. The role of economies of scale, product differentiation, mergers, and advertising in affecting industry structure and the impact of the resulting industry structure on pricing, output, promotion, and technology decisions of firms.

**ECON 3650 Law And Economics: 3 semester hours**

Prerequisites: ECON 1001 Analysis of the economic role of property rights and contracts in the private for-profit and not-for-profit sectors of the economy. Considers economic incentives to form organizations as one alternative and to form contracts as another. Considers the economic efficiency of the common law and judicial systems in use in the United States.

**ECON 3800 History Of Economic Thought: 3 semester hours**

Prerequisite: ECON 1001 and ECON 1002. The evolution of economic thought from the ancients through post-Keynesian theory.

**ECON 3900 Selected Topics In Economics: 3 semester hours**

Prerequisites: ECON 1001 and ECON 1002. Analysis of a selected economic topic. The topic selected will vary from semester to semester. This course may be taken for credit more than once so long as the topic discussed in each semester is different.

**ECON 4030 Managerial Economics: 3 semester hours**

Prerequisites: ECON 3001; MATH 1800 or MATH 1100 recommended. Application of microeconomic theory to decision-making process in the business firm. Topics include pricing and profit strategy, cost analysis, decision making under uncertainty, technology, innovation, and productivity growth, and the structure and organization of firms. Problem-solving and case-study approach used.

**ECON 4040 Analysis Of Business Cycles: 3 semester hours**

Prerequisites: ECON 3002, ECON 3100, and ECON 3200 or equivalent. This course focuses on the empirical regularities in macroeconomics commonly referred to as the business cycle. It examines the variability and co-movements of aggregate economic variables and explores alternative theoretical explanations of these phenomena.

**ECON 4100 Introduction To Econometrics: 4 semester hours**

Prerequisites: ECON 1001 and ECON 1002; ECON 3100 or MATH 1320 or LOG OM 3300; MATH 1800 or MATH 1100. An introduction to quantitative analysis of economic behavior. The ordinary least squares technique and the assumptions underlying it are developed. Methods designed to detect and correct for the violations of these assumptions are examined. Special emphasis is given to the practical application of the procedures discussed through the use of computer exercises.

**ECON 4105 Quantitative Mth & Modeling In Econ, Business & Social Sciences: 3 semester hours**

Prerequisites: MATH 1030; ECON 1001 or junior standing This course focuses on the application of mathematical techniques to model building. The course reviews various mathematical techniques and shows students how they can be used for describing various social and business phenomena. Specific examples from the business, economics, criminology and other social sciences will be employed to reinforce the mathematical tools and concepts discussed. Students who have previously completed ECON 4150, MATH 1800 or MATH 1100 may not take this course for credit.

**ECON 4110 Applied Econometrics: 4 semester hours**

Prerequisites: ECON 4100 or equivalent. Concepts, techniques, & advanced applications of econometrics. Emphasis on developing a critical understanding of the appropriateness and limitations of a variety of state-of-the-art techniques used to model economic or political processes. Topics will include joint tests of hypotheses, estimation of lagged effects, models of qualitative choice, simultaneous systems, and outlier diagnostics. This course includes laboratory work in quantitative economic analysis.

**ECON 4120 Time Series Econometrics For Economics And Finance: 4 semester hours**

Prerequisites: ECON 4100 or equivalent and a solid foundation in statistics. Introduction to application of econometric methods to timeseries data. Emphasis on model specification as it appears to macroeconomic or financial data. Topics include: Stationary and non-stationary time-series, seasonality, random walks, unit roots, Dickey-Fuller tests, cointegration, ARCH/GARCH models, and general to specific modeling (ADLs). Specific applications to macro-economics, international economics and/or financial markets.

**ECON 4130 Business And Economic Forecasting: 4 semester hours**

Prerequisites: ECON 4100 or equivalent. Alternative forecasting methodologies for economic time series will be analyzed and discussed. The focus of the course will be: (1) the development of time-series (ARIMA) models and their application to forecasting; (2) the use of standard econometric models for forecasting; and (3) evaluation and comparison of these methods and the conditions under which each is the appropriate methodology. This course includes laboratory work in quantitative economic analysis.

**ECON 4150 Mathematical Economics: 3 semester hours**

Prerequisites: MATH 1800 or MATH 1100; ECON 3001 or BUS AD 5000 or BUS AD 5001. This course uses calculus and other mathematical tools to analyze economic phenomena. In addition to exploring techniques used to solve unconstrained and constrained optimization problems, the course also examines how matrix algebra is used in economic modeling. This course allows students to mathematically analyze economic models which receive graphical treatment in lower level courses.

**ECON 4160 Geospatial Analysis In The Social Sciences: 3 semester hours**

Prerequisites: Junior standing. ECON 1001 or consent of instructor. Analysis of geospatial data relating to a variety of social phenomena using geographic information systems (GIS) software. Students will learn how geospatial analysis can be integrated into research projects and presentations (e.g., creating maps to present and analyze social, political, and economic data). Students will also learn how criminal activity, economic activity, voting patterns and other social behavior are spatially correlated with demographic data. As a culminating project, students will learn how to apply GIS techniques, including but not limited to sophisticated spatial modeling of social behavior.

**ECON 4170 Fundamentals Of Cost-Benefit Analysis: 3 semester hours**

Prerequisites: ECON 3001 or equivalent. The purpose of this course is to provide a systemic and rigorous way of thinking about the measurement of benefits and costs when evaluating public projects, programs or regulations. Cost-benefit analysis has wide application, including: environmental resource use, highway construction projects, safety regulations, taxation of cigarettes, and investment in higher education. Given the prevalence of cost-benefit analysis in government budgetary processes, this course will develop critical appraisal skills to evaluate the appropriateness of these analyses.

**ECON 4210 Financial Markets And Institutions: 3 semester hours**

Prerequisite: ECON 3200. Demand, supply and flow of funds in the macrofinancial system, including money, capital, futures and foreign exchange markets. Examines types and historical development of domestic and international financial intermediaries operations within these markets, decision-making within individual intermediaries, their regulatory environment, and how their portfolio decisions affect flows of funds in the financial system.

**ECON 4510 Public Choice: 3 semester hours**

Prerequisites: ECON 3001 or consent of instructor. Public choice is the analysis of government and governmental institutions through the logic of economics. It assumes the same principles that economists use to analyze actions in the marketplace, and applies them to actions made in collective decision-making. Topics include: the efficiency of democracy, voting methods, the incentives of legislators, bureaucrats and lobbyists, political competition, and public institutions and economic growth.

**ECON 4550 Natural Resource Economics: 3 semester hours**

Prerequisites: ECON 1001 or consent of instructor; junior standing. The relationship between human activity and the world's natural resources requires choices. This course uses an economics perspective to study these choices. This perspective uses the view of the environment as an asset for its starting point. Issues concerning the optimal and sustainable use of natural resources are examined in this context. Special emphasis is given to potential policy responses to environmental problems.

**ECON 4700 Urban Areas and Real Estate Markets: 3 semester hours**

Prerequisites: ECON 3001. Investigate the spatial aspects of urban economics: location theory, market areas, agglomerations, and real estate. The focus is on the description and explanation of the spatial allocation of economic activity with particular attention paid to the role of cities. Topics will include regional development, the growth of cities, firm location decision, spatial externalities, sprawl, and housing markets. Students may not receive credit for both ECON 4700 and ECON 5700.

**ECON 4720 The Economics Of Real Estate And Land Use Policy: 3 semester hours**

Prerequisites: ECON 3001 and ECON 4100. This course will introduce economic theory and analysis of the real estate market's micro and macro characteristics. Public policy impacting both the residential and commercial property markets will be discussed using the models developed in the course. Topics include price and location theory, growth and growth patterns, urban sprawl, migration, regulation of land and capital, provision of public goods, and non-market valuation econometric modeling. Hands on applications of various non-market econometric models will be provided.

**ECON 4900 Advanced Topics In Economic Analysis: 3 semester hours**

Prerequisite: ECON 3001 or ECON 3002 or consent of instructor. Study of a specific topic in Economics that may vary from semester to semester. May be taken for credit more than once if the topics are different.

**ECON 4980 Special Readings: 1-6 semester hours**

Prerequisite: Consent of instructor; grade point of 3.0 or higher in Economics. Unscheduled, independent directed readings on topics mutually acceptable to student and instructor. Maximum credit limited to six hours.

**ECON 4990 Internship In Applied Economics: 2-6 semester hours**

Prerequisites: ECON 3001, junior standing and consent of instructor. Independent study involving work with an appropriate private firm or public agency. A maximum of six hours may be earned, only three of which may be applied to the Economics major.

**ECON 5001 Microeconomic Analysis: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; ECON 4150. Survey of Microeconomic comparative statistics. Detailed examination of demand and supply, product and factor markets. Partial equilibrium in competitive, imperfectly competitive and monopolistic markets.

**ECON 5002 Macroeconomic Analysis: 3 semester hours**

Prerequisites: ECON 3200; ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; and ECON 4150. Aggregate economic theory, including analysis of the determinants of income, output, employment, and prices. Employment and price-level effects of consumer and investment demand, the money supply and interest rates, and government policies.

***ECON 5010 Microeconomics For Policy Analysis: 3 semester hours***

Same as P P ADM 6080. Prerequisite: Graduate Student Standing. This course introduces microeconomic analysis of consumers, firms, and government, with an emphasis on policy applications. It assumes no prior training in economics and is appropriate for graduate students in public policy administration, nonprofit management, political science, gerontology, criminology and criminal justice, and other related fields. This course may not be used by economics students to meet M.A. degree requirements.

***ECON 5051 Macroeconomics For The School Curriculum: 1-3 semester hours***

Prerequisite: Junior standing. Analysis of forces affecting the national economy, with emphasis on income determination, employment, money and banking, and international trade and finance. Special reference to topics included in elementary and secondary school social science curricula. Economics 305 may not be used by Economics majors to meet degree requirements.

***ECON 5052 Microeconomics For The School Curriculum: 1-3 semester hours***

Prerequisites: Bachelor's degree from an accredited institution or consent of instructor. Analysis of market forces, with emphasis on business firms, households, productive factor markets, price determination and resource allocation. Special reference to topics included in the elementary and secondary school social science curricula.

***ECON 5055 Economic Issues For School Curriculum: 1-3 semester hours***

Prerequisite: Junior standing and consent of instructor. An analysis of selected economic issues appropriate to instruction in secondary and elementary schools. May be taken more than once for credit provided the topic of the course is different each time. May not normally be used by economics majors to meet degree requirements.

***ECON 5100 Econometric Theory And Methods: 3 semester hours***

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; ECON 4150; ECON 4100 or LOG OM 5300; MATH 2450 or equivalent. A rigorous review of statistical models and methods relevant to the estimation and testing of economic relationships. Emphasis on the theoretical underpinnings of techniques commonly used for single and multiple equation estimation and hypothesis testing. Topics include ordinary and generalized least squares, robust regression, and simultaneous equations estimation.

***ECON 5110 Topics In Applied Econometrics: 3 semester hours***

Prerequisites: ECON 4100, or ECON 5100 or LOG OM 5300. Concepts and application of advanced econometric techniques. Students will develop a thorough understanding of the appropriateness and application of a variety of state-of-the art techniques. Topics will include specification tests, polynomial distributed lags, discrete choice, pooled time-series cross-section, simultaneous equations and outlier detection.

***ECON 5120 Advanced Topics In Time Series Econometrics: 3 semester hours***

Prerequisites: ECON 4100 or equivalent and a solid foundation in statistics. Application of econometric methods to time-series data. Emphasis on model specification as it applies to macroeconomic or financial data. Advanced topics include: Stationary and nonstationary time-series, seasonality, random walks, unit roots, Dickey-Fuller tests, cointegration, ARCH/GARCH models, and general to specific modeling (ADLs). Specific applications to macro-economics, international economics and/or financial markets.

***ECON 5130 Advanced Topics In Business And Economic Forecasting: 3 semester hours***

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; ECON 4150; ECON 4100 or LOG OM 5300. This course develops the alternative techniques which are used to forecast economic time series. Each forecasting technique will be evaluated in terms of its theoretical soundness and predictive track record. Students will also learn to use these techniques to differentiate among competing economic models.

***ECON 5200 Monetary Theory And Policy: 3 semester hours***

Prerequisites: ECON 3200; ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; and ECON 4150. An examination of how monetary policy has affected the economy in the past and how it can improve economic performance in the future. Topics include: the origins of money, money supply, money demand, the determinants of real and nominal interest rates, the term structure of interest rates, the impact of discretionary monetary policy on the domestic economy and foreign exchange markets, and the domestic economy and foreign exchange markets, and the relationship between monetary policy and federal government deficits.

***ECON 5210 Financial Markets: 3 semester hours***

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002, and ECON 3200. Demand, supply, and flow of funds in allocating credit and distributing risk in the macrofinancial system. The saving investment process, the rationale for financial markets, and the role of financial intermediaries are studied within the framework of the flow of funds accounts. Special attention is given to the operation of money, capital, futures, and foreign financial markets and the impact of public policy on the structure and performance of financial markets.

***ECON 5300 International Trade: 3 semester hours***

Prerequisites: ECON 3001 or BUS AD 5001. Survey of the modern theories of international trade and their applications including factor endowments and other, trade restrictions, foreign investment, trade and economic development, and balance of payments and exchange rates. Discussion of current institutions and economic developments in the global economy.

***ECON 5301 International Monetary Analysis: 3 semester hours***

Prerequisites: ECON 3200 and ECON 3002 or BUS AD 5002. Application of macroeconomic theory to the international monetary system. Topics include the balance of payments, exchange rates, international linkages, world inflation, capital flows, and the gold standard.

***ECON 5400 Labor Economics: Theory And Public Policy: 3 semester hours***

Prerequisites: ECON 3001 or BUS AD 5001. This course examines labor supply, labor demand, and market determination of wages. Topics covered include the effect of technological change on employment, trends in labor force participation, the impact of government taxes and transfers on labor supply, poverty, and its economic consequences, the human capital model and its implications for investment in education and on-the-job training, and theories of economic discrimination and empirical measurement issues. Throughout the course, current public policy debates are examined using the theoretical models developed.



**ECON 5500 Public Sector Microeconomics: 3 semester hours**

Same as P P ADM 6210. Prerequisites: ECON 3001 or BUS AD 5001 and P P ADM 6080. Application of tools of intermediate microeconomics to address public sector issues. Special emphasis is placed on critically analyzing current public policy debates using the models developed. Topics covered include: cases in which competitive market fails to allocate resources efficiently (e.g. externalities and public goods), importance of property rights, incentive effects of the tax and transfer system, and the fundamentals of cost-benefit analysis.

**ECON 5510 Public Choice: 3 semester hours**

Prerequisites: ECON 3001 or consent of instructor. Public choice is the analysis of government and governmental institutions through the logic of economics. It assumes the same principles that economists use to analyze actions in the marketplace, and applies them to actions made in collective decision-making. Topics covered include: the efficiency of democracy, voting methods, the incentives of legislators, bureaucrats and lobbyists, political competition, and public institutions and economic growth.

**ECON 5600 Structure And Performance Of United States Industry: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001; and ECON 4150. An analysis of the functioning of business firms under alternative market arrangements. Topics include: the theory and measurement of monopoly power and the role of economies of scale, product differentiation, and entry conditions in affecting this power; the impact of market power on the pricesetting behavior, advertising and promotional strategies, and technological innovation of firms; the role of government policy in promoting or preventing competition among firms.

**ECON 5630 Economics Of Telecommunications: 3 semester hours**

Prerequisites: ECON 3001, BUS AD 5000 or BUS AD 5001; and ECON 4150 Application of economic theory and techniques to the telecommunications industry. Topics include demand theory for telephone access and use, consumer surplus models for subscription choice, nonlinear pricing strategies including pure and mixed bundling and multi-part tariffs, the incentives of the firm under various regulatory regimes, a comparison of rate-of-return regulation and incentive (price cap) regulation, and the impact of carrier-of-last-resort responsibilities.

**ECON 5640 Transportation Economics: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5000 This course makes use of range of economic concepts to examine the nature of markets in which transport services are provided. This course is designed for future transportation professionals who wish to explore the fundamentals of economics in their field and for graduate students in public policy and economics wishing an economics-based understanding of transportation issues. Basic concepts covered include the theory of transportation demand, transportation costs and investment planning, and current topics in transportation economics such as regulation-deregulation and social cost pricing.

**ECON 5700 Urban and Real Estate Economics: 3 semester hours**

Prerequisites: ECON 3001. Investigate the spatial aspects of urban economics: location theory, market areas, agglomerations, and real estate. The focus is on the description and explanation of the spatial allocation of economic activity with particular attention paid to the role of cities. Topics will include regional development, the growth of cities, firm location decision, spatial externalities, sprawl, and housing markets. Students may not receive credit for both ECON 4700 and ECON 5700.

**ECON 5720 Real Estate Economics: 3 semester hours**

Prerequisites: ECON 3001 and ECON 4100 This course will apply economic theory to analyze the real estate market's micro and macro characteristics. Public policy impacting both the residential and commercial property markets will be discussed using models developed in the course. Topics include price and location theory, growth and growth patterns, urban sprawl, migration, regulation of land and capital, provision of public goods, and non-market valuation econometric modeling. Hands on applications of various non-market econometric models will be provided.

**ECON 5760 Health Economics: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001. This course applies microeconomic theory and statistical techniques to understand decision making in health care markets. The effects of government policies on the health care choices of consumers and providers are identified and quantified; attention is given to federal and state entitlement programs, regulations, tax policies and antitrust enforcement. The role of insurance as a risk-sharing device is explored, along with its implications for pricing and health care utilization.

**ECON 5900 Advanced Topics In Economic Analysis: 3 semester hours**

Prerequisite: Consent of the instructor. Study of a specific economics topic, which may vary from semester to semester. May be taken more than once if the topic is different.

**ECON 5980 Directed Readings: 1-6 semester hours**

Prerequisite: Consent of the instructor. Independent study through readings, reports, research projects, and conferences.

## Courses

**ECON 1000 Introduction To The American Economy: 3 semester hours**

Introduction to economic analysis and problems through an examination of the development and operations of the american economy; study of its evolution, institutions and principal problems. ECON 1000 does not substitute for ECON 1001 or ECON 1002. Students who have already completed ECON 1001 or ECON 1002 may not take ECON 1000 for credit.

**ECON 1001 Principles Of Microeconomics: 3 semester hours**

Prerequisite: MATH 1030. Introduction to the determinants of household demand, production and cost, and market prices. Applies the principles of individual decision-making behavior to understanding goods, services and resource markets.

**ECON 1002 Principles Of Macroeconomics: 3 semester hours**

Prerequisite: MATH 1030 and ECON 1001. Introduction to the determination of levels of and changes in aggregate income, output, employment and prices. Applies economic principles of choice to the formulation and achievement of public policies that affect national employment, income distribution, and economic growth.

**ECON 1003 Microeconomics In The News: A Virtual Classroom: 1 semester hour**

Prerequisites: ECON 1000 or ECON 1001 (may be taken concurrently). This course uses a virtual chatroom to host one hour of discussion weekly about current news events with microeconomic content. News articles will focus on business, public policy, and individual choices that can be understood within a microeconomics framework. Chatroom can be accessed from any location-on or off-campus - with internet access.

***ECON 1004 Macroeconomics In The News: A Virtual Classroom: 1 semester hour***

Prerequisite: ECON 1002 (may be taken concurrently) This course uses a virtual chatroom to host one hour of discussion, weekly, about current news events with macroeconomic content. News articles will focus on macroeconomic phenomena - e.g., interest rates, the global economy, the Federal Reserve and public policy decisions - that can be understood within a macroeconomics framework. Chatroom can be accessed from any location - on or off-campus - with internet access.

***ECON 1005 Family Economics and Household Development: 3 semester hours***

Provides social service professionals that work with low income individuals and families with an understanding of the principles of personal financial management. Case studies are used to apply course content and to develop training strategies for clients to improve household financial management. The role of financial institutions and government policies as well as their impact on low income families is also examined. Resources to use with clients will be identified. ECON 1005 does not count toward a major or minor in Economics.

***ECON 1500 Entertainment Economics: The Movie Industry: 3 semester hours***

Same as MEDIA ST 1500. This survey course examines the interrelationships between economics and the movie industry. It explores the impact of economic factors on the production, distribution and exhibition of movies, focusing on the rise and fall of the studio system, role of technological change in the evolution of cinematography and the movie marketplace, financing and market segmentation, globalization and changing industrial structure within which films are produced. To the extent that movies reflect and contribute to popular economic perspectives, this course also evaluates the soundness of the movie industry's depiction of a variety of economic doctrines. Classes will consist of lecture, discussion, and brief film screenings. This course does not count towards the hours required for an economics major.

***ECON 2410 Work, Families, And Public Policy: 3 semester hours***

Same as GS 2410. Prerequisites: ECON 1000 or ECON 1001. This course compares the economic behavior of women and men in both the labor market and the household. Topics include: the family as an economic (production) unit, gender differences in labor force participation, occupations and earnings; the effectiveness of human capital theory and labor market discrimination in explaining the male-female wage gap; remedies for reducing the wage gap; family structure and economic well-being; and alternative policies to alleviate poverty. Students who have completed ECON 3400 may not take ECON 2410 for credit.

***ECON 2610 The Economics Of Professional Sports: 3 semester hours***

Prerequisites: ECON 1000 or ECON 1001 or consent of instructor This course will survey the economic organization of professional sports team industries and the relationship of sports teams to their employees, fans, and governments. Economic issues relating to salaries and labor disputes, monopoly practices, cartels and pricing, team location decisions, and public subsidies for professional sports teams will be analyzed.

***ECON 2800 History Of American Economic Development: 3 semester hours***

Same as HIST 2800. Prerequisites: ECON 1000 or ECON 1001 or consent of instructor. Uses economic concepts to explain historical developments in the American economy, beginning with the hunter-gatherers who crossed the Bering land bridge around 12,000 BC. Main topics include the Native American economies, European exploration and conquest, the colonial economies, indentured servitude, the American Revolution, the US Constitution, westward expansion, transportation, the Industrial Revolution, state banking and free banking, slavery, the Civil War, post-bellum agriculture, the rise of big business and anti trust, banking panics, the Federal Reserve Act, the First and Second World Wars, the New Deal, and the growth of government in the postwar economy.

***ECON 3001 Intermediate Microeconomics: 3 semester hours***

Prerequisite: MATH 1030 and ECON 1001. Analysis of prices in terms of equilibrium of the business firm and consumer demand in markets of varying degrees of competition.

***ECON 3002 Intermediate Macroeconomics: 3 semester hours***

Prerequisite: MATH 1030, ECON 1001 and ECON 1002; ECON 3200 is recommended. Study of national income, expenditure and the forces determining the level of economic activity. Special emphasis on the theory of income determination and its application to public policy.

***ECON 3003 Game Theory And Strategic Decision Making: 3 semester hours***

Prerequisites: ECON 1001. When the best course of action depends on the decisions made by others, strategy becomes important. Game theory provides the tools for analyzing such strategic decision making. Strategic behavior is analyzed in the context of business, logistics, biology, war, government, politics, and everyday life. A wide variety of in-class experiments are used to illustrate key concepts.

***ECON 3052 Microeconomics For The School Curriculum: 1-3 semester hours***

Prerequisite: Junior standing. Analysis of market forces, with emphasis on business firms, households, and productive-factor markets, price determination and resource allocation. Special reference to topics included in elementary and secondary school social science curricula. ECON 3052 may not be used by Economics majors to meet degree requirements.

***ECON 3055 Economic Issues For The School Curriculum: 1-3 semester hours***

Prerequisites: Junior standing and consent of instructor. An analysis of selected economic issues appropriate to instruction in secondary and elementary schools. May be taken more than once for credit, provided the topic of the course is different each time. May not normally be used by economics majors to meet degree requirements. This course does not fulfill the undergraduate economics requirement for education majors.

***ECON 3100 Economic Statistics: 3 semester hours***

Prerequisite: MATH 1030, ECON 1001, and ECON 1002. Introduction to economic data sources, data interpretation and statistical inference as used in economic analysis. Emphasizes the testing of economic hypotheses and the development and estimation of economic models. Introduces the use of statistical software used in economics.

***ECON 3200 Money, Banking And Monetary Theory: 3 semester hours***

Prerequisites: ECON 1001 and ECON 1002. Factors influencing bank reserves and the money supply. Ability of the Federal Reserve System and the Treasury to control these factors. Introduction to monetary theory: integration of monetary phenomena with national income theory. Analysis of current policy issues.

**ECON 3300 International Economic Analysis: 3 semester hours**

Prerequisite: ECON 1001. Introduction to the theories of international trade and factor movements including determinants of trade, the effects of trade on sectors and on overall economic performance, trade restrictions, and balance of payments and exchange rates. Discussion of current institutions and economic developments in the global economy.

**ECON 3320 Economic Development: 3 semester hours**

Prerequisites: ECON 1001 and ECON 1002. Survey of economic growth as applied to developed and underdeveloped countries. Analysis of development policies with Emphasis on case studies. Case studies may include the United States, Western Europe or Latin America.

**ECON 3400 Labor Economics: 3 semester hours**

Prerequisites: ECON 1001 Examines the labor market in the economy, considers the theories of labor supply, labor demand, and market determination of wages. Other topics include noncompetitive markets, international labor markets, the theory of human capital, compensating wage differentials, labor market discrimination, unions and collective bargaining, unemployment, and poverty and the distribution of income.

**ECON 3450 Labor in the Global Political Economy: 3 semester hours**

This course will examine current issues, trends, and developments which are shaping labor in today's global economy. Students will analyze the shifting balance of power between labor and capital, the role of government, and evaluate the strategic options for workers and unions operating in a global environment. ECON 3450 may not be used by economics majors to meet degree requirements.

**ECON 3500 The Economics of Government Spending and Taxation: 3 semester hours**

Prerequisites: MATH 1030 and ECON 1001. Analysis of the role of government expenditures and taxation. Topics include: (1) analysis of public goods and externalities, models of collective choice, elements of benefit-cost analysis the theory of bureaucracy, governments as agents in markets; and (2) analysis of the economic role of governments, subsidies and taxes in the federal system, criteria for tax evaluation, the nature of tax legislation, private decision making under different tax institutions, and government borrowing.

**ECON 3600 Market Structure, Strategy, and Pricing: 3 semester hours**

Prerequisite: ECON 1001. A theoretical and empirical analysis of the actions of firms under alternative forms of market organization. The role of economies of scale, product differentiation, mergers, and advertising in affecting industry structure and the impact of the resulting industry structure on pricing, output, promotion, and technology decisions of firms.

**ECON 3650 Law And Economics: 3 semester hours**

Prerequisites: ECON 1001 Analysis of the economic role of property rights and contracts in the private for-profit and not-for-profit sectors of the economy. Considers economic incentives to form organizations as one alternative and to form contracts as another. Considers the economic efficiency of the common law and judicial systems in use in the United States.

**ECON 3800 History Of Economic Thought: 3 semester hours**

Prerequisite: ECON 1001 and ECON 1002. The evolution of economic thought from the ancients through post-Keynesian theory.

**ECON 3900 Selected Topics In Economics: 3 semester hours**

Prerequisites: ECON 1001 and ECON 1002. Analysis of a selected economic topic. The topic selected will vary from semester to semester. This course may be taken for credit more than once so long as the topic discussed in each semester is different.

**ECON 4030 Managerial Economics: 3 semester hours**

Prerequisites: ECON 3001; MATH 1800 or MATH 1100 recommended. Application of microeconomic theory to decision-making process in the business firm. Topics include pricing and profit strategy, cost analysis, decision making under uncertainty, technology, innovation, and productivity growth, and the structure and organization of firms. Problem-solving and case-study approach used.

**ECON 4040 Analysis Of Business Cycles: 3 semester hours**

Prerequisites: ECON 3002, ECON 3100, and ECON 3200 or equivalent. This course focuses on the empirical regularities in macroeconomics commonly referred to as the business cycle. It examines the variability and co-movements of aggregate economic variables and explores alternative theoretical explanations of these phenomena.

**ECON 4100 Introduction To Econometrics: 4 semester hours**

Prerequisites: ECON 1001 and ECON 1002; ECON 3100 or MATH 1320 or LOG OM 3300; MATH 1800 or MATH 1100. An introduction to quantitative analysis of economic behavior. The ordinary least squares technique and the assumptions underlying it are developed. Methods designed to detect and correct for the violations of these assumptions are examined. Special emphasis is given to the practical application of the procedures discussed through the use of computer exercises.

**ECON 4105 Quantitative Mth & Modeling In Econ, Business & Social Sciences: 3 semester hours**

Prerequisites: MATH 1030; ECON 1001 or junior standing This course focuses on the application of mathematical techniques to model building. The course reviews various mathematical techniques and shows students how they can be used for describing various social and business phenomena. Specific examples from the business, economics, criminology and other social sciences will be employed to reinforce the mathematical tools and concepts discussed. Students who have previously completed ECON 4150, MATH 1800 or MATH 1100 may not take this course for credit.

**ECON 4110 Applied Econometrics: 4 semester hours**

Prerequisites: ECON 4100 or equivalent. Concepts, techniques, & advanced applications of econometrics. Emphasis on developing a critical understanding of the appropriateness and limitations of a variety of state-of-the-art techniques used to model economic or political processes. Topics will include joint tests of hypotheses, estimation of lagged effects, models of qualitative choice, simultaneous systems, and outlier diagnostics. This course includes laboratory work in quantitative economic analysis.

**ECON 4120 Time Series Econometrics For Economics And Finance: 4 semester hours**

Prerequisites: ECON 4100 or equivalent and a solid foundation in statistics. Introduction to application of econometric methods to timeseries data. Emphasis on model specification as it appears to macroeconomic or financial data. Topics include: Stationary and non-stationary time-series, seasonality, random walks, unit roots, Dickey-Fuller tests, cointegration, ARCH/GARCH models, and general to specific modeling (ADLs). Specific applications to macro-economics, international economics and/or financial markets.



**ECON 4130 Business And Economic Forecasting: 4 semester hours**

Prerequisites: ECON 4100 or equivalent. Alternative forecasting methodologies for economic time series will be analyzed and discussed. The focus of the course will be: (1) the development of time-series (ARIMA) models and their application to forecasting; (2) the use of standard econometric models for forecasting; and (3) evaluation and comparison of these methods and the conditions under which each is the appropriate methodology. This course includes laboratory work in quantitative economic analysis.

**ECON 4150 Mathematical Economics: 3 semester hours**

Prerequisites: MATH 1800 or MATH 1100; ECON 3001 or BUS AD 5000 or BUS AD 5001. This course uses calculus and other mathematical tools to analyze economic phenomena. In addition to exploring techniques used to solve unconstrained and constrained optimization problems, the course also examines how matrix algebra is used in economic modeling. This course allows students to mathematically analyze economic models which receive graphical treatment in lower level courses.

**ECON 4160 Geospatial Analysis In The Social Sciences: 3 semester hours**

Prerequisites: Junior standing. ECON 1001 or consent of instructor. Analysis of geospatial data relating to a variety of social phenomena using geographic information systems (GIS) software. Students will learn how geospatial analysis can be integrated into research projects and presentations (e.g., creating maps to present and analyze social, political, and economic data). Students will also learn how criminal activity, economic activity, voting patterns and other social behavior are spatially correlated with demographic data. As a culminating project, students will learn how to apply GIS techniques, including but not limited to sophisticated spatial modeling of social behavior.

**ECON 4170 Fundamentals Of Cost-Benefit Analysis: 3 semester hours**

Prerequisites: ECON 3001 or equivalent. The purpose of this course is to provide a systemic and rigorous way of thinking about the measurement of benefits and costs when evaluating public projects, programs or regulations. Cost-benefit analysis has wide application, including: environmental resource use, highway construction projects, safety regulations, taxation of cigarettes, and investment in higher education. Given the prevalence of cost-benefit analysis in government budgetary processes, this course will develop critical appraisal skills to evaluate the appropriateness of these analyses.

**ECON 4210 Financial Markets And Institutions: 3 semester hours**

Prerequisite: ECON 3200. Demand, supply and flow of funds in the macrofinancial system, including money, capital, futures and foreign exchange markets. Examines types and historical development of domestic and international financial intermediaries operations within these markets, decision-making within individual intermediaries, their regulatory environment, and how their portfolio decisions affect flows of funds in the financial system.

**ECON 4510 Public Choice: 3 semester hours**

Prerequisites: ECON 3001 or consent of instructor. Public choice is the analysis of government and governmental institutions through the logic of economics. It assumes the same principles that economists use to analyze actions in the marketplace, and applies them to actions made in collective decision-making. Topics include: the efficiency of democracy, voting methods, the incentives of legislators, bureaucrats and lobbyists, political competition, and public institutions and economic growth.

**ECON 4550 Natural Resource Economics: 3 semester hours**

Prerequisites: ECON 1001 or consent of instructor; junior standing. The relationship between human activity and the world's natural resources requires choices. This course uses an economics perspective to study these choices. This perspective uses the view of the environment as an asset for its starting point. Issues concerning the optimal and sustainable use of natural resources are examined in this context. Special emphasis is given to potential policy responses to environmental problems.

**ECON 4700 Urban Areas and Real Estate Markets: 3 semester hours**

Prerequisites: ECON 3001. Investigate the spatial aspects of urban economics: location theory, market areas, agglomerations, and real estate. The focus is on the description and explanation of the spatial allocation of economic activity with particular attention paid to the role of cities. Topics will include regional development, the growth of cities, firm location decision, spatial externalities, sprawl, and housing markets. Students may not receive credit for both ECON 4700 and ECON 5700.

**ECON 4720 The Economics Of Real Estate And Land Use Policy: 3 semester hours**

Prerequisites: ECON 3001 and ECON 4100. This course will introduce economic theory and analysis of the real estate market's micro and macro characteristics. Public policy impacting both the residential and commercial property markets will be discussed using the models developed in the course. Topics include price and location theory, growth and growth patterns, urban sprawl, migration, regulation of land and capital, provision of public goods, and non-market valuation econometric modeling. Hands on applications of various non-market econometric models will be provided.

**ECON 4900 Advanced Topics In Economic Analysis: 3 semester hours**

Prerequisite: ECON 3001 or ECON 3002 or consent of instructor. Study of a specific topic in Economics that may vary from semester to semester. May be taken for credit more than once if the topics are different.

**ECON 4980 Special Readings: 1-6 semester hours**

Prerequisite: Consent of instructor; grade point of 3.0 or higher in Economics. Unscheduled, independent directed readings on topics mutually acceptable to student and instructor. Maximum credit limited to six hours.

**ECON 4990 Internship In Applied Economics: 2-6 semester hours**

Prerequisites: ECON 3001, junior standing and consent of instructor. Independent study involving work with an appropriate private firm or public agency. A maximum of six hours may be earned, only three of which may be applied to the Economics major.

**ECON 5001 Microeconomic Analysis: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; ECON 4150. Survey of Microeconomic comparative statistics. Detailed examination of demand and supply, product and factor markets. Partial equilibrium in competitive, imperfectly competitive and monopolistic markets.

**ECON 5002 Macroeconomic Analysis: 3 semester hours**

Prerequisites: ECON 3200; ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; and ECON 4150. Aggregate economic theory, including analysis of the determinants of income, output, employment, and prices. Employment and price-level effects of consumer and investment demand, the money supply and interest rates, and government policies.



**ECON 5010 Microeconomics For Policy Analysis: 3 semester hours**

Same as P P ADM 6080. Prerequisite: Graduate Student Standing. This course introduces microeconomic analysis of consumers, firms, and government, with an emphasis on policy applications. It assumes no prior training in economics and is appropriate for graduate students in public policy administration, nonprofit management, political science, gerontology, criminology and criminal justice, and other related fields. This course may not be used by economics students to meet M.A. degree requirements.

**ECON 5051 Macroeconomics For The School Curriculum: 1-3 semester hours**

Prerequisite: Junior standing. Analysis of forces affecting the national economy, with emphasis on income determination, employment, money and banking, and international trade and finance. Special reference to topics included in elementary and secondary school social science curricula. Economics 305 may not be used by Economics majors to meet degree requirements.

**ECON 5052 Microeconomics For The School Curriculum: 1-3 semester hours**

Prerequisites: Bachelor's degree from an accredited institution or consent of instructor. Analysis of market forces, with emphasis on business firms, households, productive factor markets, price determination and resource allocation. Special reference to topics included in the elementary and secondary school social science curricula.

**ECON 5055 Economic Issues For School Curriculum: 1-3 semester hours**

Prerequisite: Junior standing and consent of instructor. An analysis of selected economic issues appropriate to instruction in secondary and elementary schools. May be taken more than once for credit provided the topic of the course is different each time. May not normally be used by economics majors to meet degree requirements.

**ECON 5100 Econometric Theory And Methods: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; ECON 4150; ECON 4100 or LOG OM 5300; MATH 2450 or equivalent. A rigorous review of statistical models and methods relevant to the estimation and testing of economic relationships. Emphasis on the theoretical underpinnings of techniques commonly used for single and multiple equation estimation and hypothesis testing. Topics include ordinary and generalized least squares, robust regression, and simultaneous equations estimation.

**ECON 5110 Topics In Applied Econometrics: 3 semester hours**

Prerequisites: ECON 4100, or ECON 5100 or LOG OM 5300. Concepts and application of advanced econometric techniques. Students will develop a thorough understanding of the appropriateness and application of a variety of state-of-the art techniques. Topics will include specification tests, polynomial distributed lags, discrete choice, pooled time-series cross-section, simultaneous equations and outlier detection.

**ECON 5120 Advanced Topics In Time Series Econometrics: 3 semester hours**

Prerequisites: ECON 4100 or equivalent and a solid foundation in statistics. Application of econometric methods to time-series data. Emphasis on model specification as it applies to macroeconomic or financial data. Advanced topics include: Stationary and nonstationary time-series, seasonality, random walks, unit roots, Dickey-Fuller tests, cointegration, ARCH/GARCH models, and general to specific modeling (ADLs). Specific applications to macro-economics, international economics and/or financial markets.

**ECON 5130 Advanced Topics In Business And Economic Forecasting: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; ECON 4150; ECON 4100 or LOG OM 5300. This course develops the alternative techniques which are used to forecast economic time series. Each forecasting technique will be evaluated in terms of its theoretical soundness and predictive track record. Students will also learn to use these techniques to differentiate among competing economic models.

**ECON 5200 Monetary Theory And Policy: 3 semester hours**

Prerequisites: ECON 3200; ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; and ECON 4150. An examination of how monetary policy has affected the economy in the past and how it can improve economic performance in the future. Topics include: the origins of money, money supply, money demand, the determinants of real and nominal interest rates, the term structure of interest rates, the impact of discretionary monetary policy on the domestic economy and foreign exchange markets, and the domestic economy and foreign exchange markets, and the relationship between monetary policy and federal government deficits.

**ECON 5210 Financial Markets: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001; ECON 3002, and ECON 3200. Demand, supply, and flow of funds in allocating credit and distributing risk in the macrofinancial system. The saving investment process, the rationale for financial markets, and the role of financial intermediaries are studied within the framework of the flow of funds accounts. Special attention is given to the operation of money, capital, futures, and foreign financial markets and the impact of public policy on the structure and performance of financial markets.

**ECON 5300 International Trade: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001. Survey of the modern theories of international trade and their applications including factor endowments and other, trade restrictions, foreign investment, trade and economic development, and balance of payments and exchange rates. Discussion of current institutions and economic developments in the global economy.

**ECON 5301 International Monetary Analysis: 3 semester hours**

Prerequisites: ECON 3200 and ECON 3002 or BUS AD 5002. Application of macroeconomic theory to the international monetary system. Topics include the balance of payments, exchange rates, international linkages, world inflation, capital flows, and the gold standard.

**ECON 5400 Labor Economics: Theory And Public Policy: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001. This course examines labor supply, labor demand, and market determination of wages. Topics covered include the effect of technological change on employment, trends in labor force participation, the impact of government taxes and transfers on labor supply, poverty, and its economic consequences, the human capital model and its implications for investment in education and on-the-job training, and theories of economic discrimination and empirical measurement issues. Throughout the course, current public policy debates are examined using the theoretical models developed.

**ECON 5500 Public Sector Microeconomics: 3 semester hours**

Same as P P ADM 6210. Prerequisites: ECON 3001 or BUS AD 5001 and P P ADM 6080. Application of tools of intermediate microeconomics to address public sector issues. Special emphasis is placed on critically analyzing current public policy debates using the models developed. Topics covered include: cases in which competitive market fails to allocate resources efficiently (e.g. externalities and public goods), importance of property rights, incentive effects of the tax and transfer system, and the fundamentals of cost-benefit analysis.

**ECON 5510 Public Choice: 3 semester hours**

Prerequisites: ECON 3001 or consent of instructor. Public choice is the analysis of government and governmental institutions through the logic of economics. It assumes the same principles that economists use to analyze actions in the marketplace, and applies them to actions made in collective decision-making. Topics covered include: the efficiency of democracy, voting methods, the incentives of legislators, bureaucrats and lobbyists, political competition, and public institutions and economic growth.

**ECON 5600 Structure And Performance Of United States Industry: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001; and ECON 4150. An analysis of the functioning of business firms under alternative market arrangements. Topics include: the theory and measurement of monopoly power and the role of economies of scale, product differentiation, and entry conditions in affecting this power; the impact of market power on the pricesetting behavior, advertising and promotional strategies, and technological innovation of firms; the role of government policy in promoting or preventing competition among firms.

**ECON 5630 Economics Of Telecommunications: 3 semester hours**

Prerequisites: ECON 3001, BUS AD 5000 or BUS AD 5001; and ECON 4150 Application of economic theory and techniques to the telecommunications industry. Topics include demand theory for telephone access and use, consumer surplus models for subscription choice, nonlinear pricing strategies including pure and mixed bundling and multi-part tariffs, the incentives of the firm under various regulatory regimes, a comparison of rate-of-return regulation and incentive (price cap) regulation, and the impact of carrier-of-last-resort responsibilities.

**ECON 5640 Transportation Economics: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5000 This course makes use of range of economic concepts to examine the nature of markets in which transport services are provided. This course is designed for future transportation professionals who wish to explore the fundamentals of economics in their field and for graduate students in public policy and economics wishing an economics-based understanding of transportation issues. Basic concepts covered include the theory of transportation demand, transportation costs and investment planning, and current topics in transportation economics such as regulation-deregulation and social cost pricing.

**ECON 5700 Urban and Real Estate Economics: 3 semester hours**

Prerequisites: ECON 3001. Investigate the spatial aspects of urban economics: location theory, market areas, agglomerations, and real estate. The focus is on the description and explanation of the spatial allocation of economic activity with particular attention paid to the role of cities. Topics will include regional development, the growth of cities, firm location decision, spatial externalities, sprawl, and housing markets. Students may not receive credit for both ECON 4700 and ECON 5700.

**ECON 5720 Real Estate Economics: 3 semester hours**

Prerequisites: ECON 3001 and ECON 4100 This course will apply economic theory to analyze the real estate market's micro and macro characteristics. Public policy impacting both the residential and commercial property markets will be discussed using models developed in the course. Topics include price and location theory, growth and growth patterns, urban sprawl, migration, regulation of land and capital, provision of public goods, and non-market valuation econometric modeling. Hands on applications of various non-market econometric models will be provided.

**ECON 5760 Health Economics: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5001. This course applies microeconomic theory and statistical techniques to understand decision making in health care markets. The effects of government policies on the health care choices of consumers and providers are identified and quantified; attention is given to federal and state entitlement programs, regulations, tax policies and antitrust enforcement. The role of insurance as a risk-sharing device is explored, along with its implications for pricing and health care utilization.

**ECON 5900 Advanced Topics In Economic Analysis: 3 semester hours**

Prerequisite: Consent of the instructor. Study of a specific economics topic, which may vary from semester to semester. May be taken more than once if the topic is different.

**ECON 5980 Directed Readings: 1-6 semester hours**

Prerequisite: Consent of the instructor. Independent study through readings, reports, research projects, and conferences.

## Educational Administration

### Courses

**ED ADM 6000 Seminar: 1-10 semester hours****ED ADM 6200 Demographic Contexts of Education: 3 semester hours**

Prerequisites: Graduate Standing. This course is a critical examination of the impact of population changes on schools. Students will have the opportunity to investigate the social and economic dimensions of demographic shifts that affect demand for and organization of education services.

**ED ADM 6201 Knowledge Contexts Of Education Administration And Policy: 3 semester hours**

Prerequisites: Admission to master, doctoral, and/or certification programs in Education Administration or consent of instructor. This course is a survey of the various views of knowledge that have influenced the nature of the organizational structures and policies of American educational institutions. The course is framed both by the purposes of American education and the "scientific management" movement of the first quarter of the 20th Century.

**ED ADM 6202 Social Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor This course is a critical examination of different perspectives on the social structures within which education policies are constituted and their concomitant practices implemented.

**ED ADM 6203 Political Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor This course is a critical examination of those aspects of local, state, & federal politics which significantly influence the political contexts within which education policies are constituted and their concomitant practices implemented.

**ED ADM 6204 Economic Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor This course is a critical examination of those aspects of local, state, and national economic structures which influence the nature of education policies and their concomitant practices.

**ED ADM 6205 Legal Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor This course is a critical examination of both (1) local, state, and federal laws and (2) Western notions of justice within which education policies are constituted and their concomitant practices implemented.

**ED ADM 6301 Education Administration Policy Research: 3 semester hours**

Prerequisites: Completion of at least twenty-four credit hours towards the M.Ed. in Education Administration or consent of instructor. A study of issues and trends in basic, applied, and action research in education policymaking.

**ED ADM 6302 Elementary School Administration: 3 semester hours**

Prerequisites: Completion of at least fifteen credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the elementary school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of elementary schools.

**ED ADM 6303 Middle School Administration: 3 semester hours**

Prerequisites: Completion of at least fifteen credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the middle school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of middle schools.

**ED ADM 6304 Secondary School Administration: 3 semester hours**

Prerequisites: Completion of at least fifteen credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the secondary school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of secondary schools.

**ED ADM 6305 School District Administration: 3 semester hours**

Prerequisite: Enrollment in Advanced Certification Program and/ or consent of instructor. Course focuses on current research about school district administration; also deals with major central office issues including: board/superintendent relations, central office organization, the function and authority of assistant superintendents and program directors, and the administrative team approach to school district administration.

**ED ADM 6306 Special Education Administration: 3 semester hours**

Prerequisites: Completion of graduate degree in Special Education, Education Administration or consent of instructor A study of organizational issues in special education and implications for practices and procedures. Specific attention will be given to special education delivery systems, compliance standards, funding sources, and regulatory standards.

**ED ADM 6307 Integrated Curriculum For Special Education Administrators: 3 semester hours**

Prerequisites: Graduate Standing Development of skills to understand, supervise and evaluate the integration and differentiation of curriculum. Intended for special education administrators.

**ED ADM 6315 Middle School Educational Philosophy: 3 semester hours**

An in-depth examination of the educational philosophy and historical basis of middle level schools, and the relationship between philosophy and middle school organizational practices. Includes a review of the research, organizational structures, and current trends and practices.

**ED ADM 6317 Supervision And The Middle School Child: 3 semester hours**

The unique developmental characteristics and needs of early adolescents are explored through a variety of supervisory activities involving middle level students, teachers, and administrators. The implications of economic and ethnic diversity for middle level schools will also be addressed.

**ED ADM 6401 School Staff Development And Supervision: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor This course provides an examination of the conceptual bases and practical applications of staff development and supervision in educational settings. It explores relevant conceptual models presented as heuristic devices to consider a variety of administrative techniques to assess needs, plan, deliver, and evaluate staff development and supervision programs in schooling.

**ED ADM 6402 School Personnel Administration: 3 semester hours**

Prerequisites: Advanced standing and/or consent of instructor This course is a comprehensive, systematic study of problems in planning, recruitment, selection, induction, and retention relative to school personnel.

**ED ADM 6403 Problems In School Public Relations: 3 semester hours**

Prerequisites: Advanced standing and/or consent This course is an examination of a range both traditional and critical perspectives relevant to home-school-community relations.

**ED ADM 6404 Collective Negotiations In Education Organizations: 3 semester hours**

Prerequisites: Advanced graduate standing and/or consent of instructor This course focuses on the concepts, issues, and processes involved with collective negotiations (bargaining) in American educational organizations. The major issues addressed in the course include recognition procedures, bargaining unit determination, the scope of negotiations, the proposal and counterproposal, compromise, impasse procedures, and master contract management.

**ED ADM 6407 School Staff Development & Supervision- Special Ed Administration: 3 semester hours**

Prerequisites: Completion of graduate degree in Special Education, Education Administration or consent of instructor. This course provides an examination of the conceptual bases and practical application of staff development and supervision for special education settings for staffs serving special education students. It explores relevant conceptual models presented as heuristic devices to consider a variety of administrative techniques to assess needs, plan, deliver, and evaluate staff development and supervision programs serving students with special education needs.

**ED ADM 6449 Using Technology In Administration Processes: 3 semester hours**

Prerequisites: A course in measurement, statistics, or evaluation, or consent of instructor. Same as ED TECH 6449. The course will explore how the use of data analysis with technology can be applied in the administration of schools or other work settings. Administrators will explore software tools and their implications for making decisions. A case study will be completed on the implementation of a technology in a school or other appropriate setting.

**ED ADM 6497 Problems: 1-10 semester hours**



**ED ADM 6501 Principles Of Public School Finance In Missouri: 3 semester hours**

Prerequisites: Advanced graduate standing and/or consent of instructor  
Course is designed to analyze and study critical areas of public school finance at the local and state levels, highlighting the role of such factors as legislative procedures, principles of local and state support, budgeting and accounting procedures, assessment of property, etc.

**ED ADM 6502 School Buildings And Sites: 3 semester hours**

Prerequisites: Advanced graduate standing and/or consent of instructor  
This course deals with methods and procedures for (1) projecting the future building and facility needs of a public school district, (2) supervising actual planning and construction of educational facilities, (3) optimizing the use of current facilities, and (4) maintenance of buildings, grounds, and equipment.

**ED ADM 6503 Organizational Change In Education: 3 semester hours**

Prerequisites: Advanced graduate standing and/or consent of instructor  
This course deals with (1) developing strategies for assessing educational needs, (2) methods of assessing the school's "organizational health", (3) the designing of educational change strategies involving theory-based models, (4) using systems analysis techniques to implement educational change, and (5) methods of involving students and staff in incorporating meaningful organizational change strategies in educational institutions.

**ED ADM 6601 Administration Of Adult And Community Education: 3 semester hours**

Prerequisites: Graduate standing and consent of instructor  
A course designed to familiarize the student with the structure, purpose, and processes of community education with particular emphasis being placed on the administrative theories and functions of adult education.

**ED ADM 6602 Programming In Community And Adult Education: 3 semester hours**

Prerequisites: ED ADM 6601 and/or consent of instructor  
Study and analysis of basic situations in which community and adult educational programming take place. Within this framework, application will be made of a fundamental series of steps essential to sound educational programming.

**ED ADM 6900 Internship: 1-10 semester hours**

Prerequisite: Consent Of Instructor. Closely Supervised Experience In A Field Setting Under The Direction Of A Graduate Faculty Member. An Appropriate Level Of Competence And Evidence Of Growth In The Professional Role Must Be Demonstrated By The Intern. The Internship Will Include Planning, Research, Evaluation, And Related Professional Activities.

**ED ADM 7050 The Research Proc I: Framing Research Questions Within The Ed Lit: 3 semester hours**

Same as EDUC 7050. Prerequisites: Admission to the Ed.D. or Ph.D. in Education Programs. An overview of the essential elements of research proposals and familiarization with the techniques and tools used to identify important research questions within the education literature. Emphasis is placed on exploring the research literature and both framing and justifying research questions within that literature.

**ED ADM 7150 Educational Inquiry: 3 semester hours**

Prerequisites: ED ADM 7050  
This course is required for doctoral students in the Educational Administration program. The course supports the development of the student's individual research topic and explores options for methodological approaches to education policy and administration issues.

**ED ADM 7250 The Change Process In Schools And School Districts: 3 semester hours**

Prerequisites: ED ADM 7050 and ED ADM 7150  
Advanced study of the literature pertaining to the theories of action and strategies for leading and sustaining change in schools and school districts. Emphasis is on the framing of research questions through the perspective of the literature on the change process in the schools.

**ED ADM 7800 Educational Administration Doctoral Seminar: 1-6 semester hours**

Prerequisites: Admission to doctoral program and consent of instructor  
Intensive directed study of selected issues related to the administration of educational institutions.

**Courses****ED ADM 6000 Seminar: 1-10 semester hours****ED ADM 6200 Demographic Contexts of Education: 3 semester hours**

Prerequisites: Graduate Standing. This course is a critical examination of the impact of population changes on schools. Students will have the opportunity to investigate the social and economic dimensions of demographic shifts that affect demand for and organization of education services.

**ED ADM 6201 Knowledge Contexts Of Education Administration And Policy: 3 semester hours**

Prerequisites: Admission to master, doctoral, and/or certification programs in Education Administration or consent of instructor. This course is a survey of the various views of knowledge that have influenced the nature of the organizational structures and policies of American educational institutions. The course is framed both by the purposes of American education and the "scientific management" movement of the first quarter of the 20th Century.

**ED ADM 6202 Social Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor  
This course is a critical examination of different perspectives on the social structures within which education policies are constituted and their concomitant practices implemented.

**ED ADM 6203 Political Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor  
This course is a critical examination of those aspects of local, state, & federal politics which significantly influence the political contexts within which education policies are constituted and their concomitant practices implemented.

**ED ADM 6204 Economic Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor  
This course is a critical examination of those aspects of local, state, and national economic structures which influence the nature of education policies and their concomitant practices.

**ED ADM 6205 Legal Contexts Of Education: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor  
This course is a critical examination of both (1) local, state, and federal laws and (2) Western notions of justice within which education policies are constituted and their concomitant practices implemented.

**ED ADM 6301 Education Administration Policy Research: 3 semester hours**

Prerequisites: Completion of at least twenty-four credit hours towards the M.Ed. in Education Administration or consent of instructor. A study of issues and trends in basic, applied, and action research in education policymaking.



**ED ADM 6302 Elementary School Administration: 3 semester hours**

Prerequisites: Completion of at least fifteen credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the elementary school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of elementary schools.

**ED ADM 6303 Middle School Administration: 3 semester hours**

Prerequisites: Completion of at least fifteen credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the middle school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of middle schools.

**ED ADM 6304 Secondary School Administration: 3 semester hours**

Prerequisites: Completion of at least fifteen credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the secondary school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of secondary schools.

**ED ADM 6305 School District Administration: 3 semester hours**

Prerequisite: Enrollment in Advanced Certification Program and/ or consent of instructor. Course focuses on current research about school district administration; also deals with major central office issues including: board/superintendent relations, central office organization, the function and authority of assistant superintendents and program directors, and the administrative team approach to school district administration.

**ED ADM 6306 Special Education Administration: 3 semester hours**

Prerequisites: Completion of graduate degree in Special Education, Education Administration or consent of instructor. A study of organizational issues in special education and implications for practices and procedures. Specific attention will be given to special education delivery systems, compliance standards, funding sources, and regulatory standards.

**ED ADM 6307 Integrated Curriculum For Special Education Administrators: 3 semester hours**

Prerequisites: Graduate Standing Development of skills to understand, supervise and evaluate the integration and differentiation of curriculum. Intended for special education administrators.

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An in-depth examination of the educational philosophy and historical basis of middle level schools, and the relationship between philosophy and middle school organizational practices. Includes a review of the research, organizational structures, and current trends and practices.

**ED ADM 6317 Supervision And The Middle School Child: 3 semester hours**

The unique developmental characteristics and needs of early adolescents are explored through a variety of supervisory activities involving middle level students, teachers, and administrators. The implications of economic and ethnic diversity for middle level schools will also be addressed.

**ED ADM 6401 School Staff Development And Supervision: 3 semester hours**

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor. This course provides an examination of the conceptual bases and practical applications of staff development and supervision in educational settings. It explores relevant conceptual models presented as heuristic devices to consider a variety of administrative techniques to assess needs, plan, deliver, and evaluate staff development and supervision programs in schooling.

**ED ADM 6402 School Personnel Administration: 3 semester hours**

Prerequisites: Advanced standing and/or consent of instructor. This course is a comprehensive, systematic study of problems in planning, recruitment, selection, induction, and retention relative to school personnel.

**ED ADM 6403 Problems In School Public Relations: 3 semester hours**

Prerequisites: Advanced standing and/or consent. This course is an examination of a range both traditional and critical perspectives relevant to home-school-community relations.

**ED ADM 6404 Collective Negotiations In Education Organizations: 3 semester hours**

Prerequisites: Advanced graduate standing and/or consent of instructor. This course focuses on the concepts, issues, and processes involved with collective negotiations (bargaining) in American educational organizations. The major issues addressed in the course include recognition procedures, bargaining unit determination, the scope of negotiations, the proposal and counterproposal, compromise, impasse procedures, and master contract management.

**ED ADM 6407 School Staff Development & Supervision- Special Ed Administration: 3 semester hours**

Prerequisites: Completion of graduate degree in Special Education, Education Administration or consent of instructor. This course provides an examination of the conceptual bases and practical application of staff development and supervision for special education settings for staffs serving special education students. It explores relevant conceptual models presented as heuristic devices to consider a variety of administrative techniques to assess needs, plan, deliver, and evaluate staff development and supervision programs serving students with special education needs.

**ED ADM 6449 Using Technology In Administration Processes: 3 semester hours**

Prerequisites: A course in measurement, statistics, or evaluation, or consent of instructor. Same as ED TECH 6449. The course will explore how the use of data analysis with technology can be applied in the administration of schools or other work settings. Administrators will explore software tools and their implications for making decisions. A case study will be completed on the implementation of a technology in a school or other appropriate setting.

**ED ADM 6497 Problems: 1-10 semester hours****ED ADM 6501 Principles Of Public School Finance In Missouri: 3 semester hours**

Prerequisites: Advanced graduate standing and/or consent of instructor. Course is designed to analyze and study critical areas of public school finance at the local and state levels, highlighting the role of such factors as legislative procedures, principles of local and state support, budgeting and accounting procedures, assessment of property, etc.

**ED ADM 6502 School Buildings And Sites: 3 semester hours**

Prerequisites: Advanced graduate standing and/or consent of instructor. This course deals with methods and procedures for (1) projecting the future building and facility needs of a public school district, (2) supervising actual planning and construction of educational facilities, (3) optimizing the use of current facilities, and (4) maintenance of buildings, grounds, and equipment.

**ED ADM 6503 Organizational Change In Education: 3 semester hours**

Prerequisites: Advanced graduate standing and/or consent of instructor  
This course deals with (1)developing strategies for assessing educational needs, (2)methods of assessing the school's "organizational health", (3)the designing of educational change strategies involving theory-based models, (4)using systemsanalysis techniques to implement educational change, and (5) methods of involving students and staff in incorporating meaningful organizational change strategies in educational institutions.

**ED ADM 6601 Administration Of Adult And Community Education: 3 semester hours**

Prerequisites: Graduate standing and consent of instructor A course designed to familiarize the student with the structure, purpose, and processes of community education with particular emphasis being placed on the administrative theories and functions of adult education.

**ED ADM 6602 Programming In Community And Adult Education: 3 semester hours**

Prerequisites: ED ADM 6601 and/or consent of instructor Study and analysis of basic situations in which community and adult educational programming take place. Within this framework, application will be made of a fundamental series of steps essential to sound educational programming.

**ED ADM 6900 Internship: 1-10 semester hours**

Prerequisite: Consent Of Instructor. Closely Supervised Experience In A Field Setting Under The Direction Of A Graduate Faculty Member. An Appropriate Level Of Competence And Evidence Of Growth In The Professional Role Must Be Demonstrated By The Intern. The Internship Will Include Planning, Research, Evaluation, And Related Professional Activities.

**ED ADM 7050 The Research Proc I: Framing Research Questions Within The Ed Lit: 3 semester hours**

Same as EDUC 7050. Prerequisites: Admission to the Ed.D. or Ph.D. in Education Programs. An overview of the essential elements of research proposals and familiarization with the techniques and tools used to identify important research questions within the education literature. Emphasis is placed on exploring the research literature and both framing and justifying research questions within that literature.

**ED ADM 7150 Educational Inquiry: 3 semester hours**

Prerequisites: ED ADM 7050 This course is required for doctoral students in the Educational Administration program. The course supports the development of the student's individual research topic and explores options for methodological approaches to education policy and administration issues.

**ED ADM 7250 The Change Process In Schools And School Districts: 3 semester hours**

Prerequisites: ED ADM 7050 and ED ADM 7150 Advanced study of the literature pertaining to the theories of action and strategies for leading and sustaining change in schools and school districts. Emphasis is on the framing of research questions through the perspective of the literature on the change process in the schools.

**ED ADM 7800 Educational Administration Doctoral Seminar: 1-6 semester hours**

Prerequisites: Admission to doctoral program and consent of instructor Intensive directed study of selected issues related to the administration of educational institutions.

## Educational Foundations

## Courses

**ED FND 3251 Black Americans In Education: 3 semester hours**

An examination and analysis of conditions affecting the education of black Americans and their schools, with emphasis on relationships between schools and the black community, and needed changes in education.

**ED FND 6422 Analysis Of Educational Issues: 3 semester hours**

Prerequisite: A course in philosophy of education or a course in history of education or consent of instructor. A critical examination of issues about the elementary and secondary schools. This is done through the analysis of the procedures, resources and goals that guide school policies and practices.

**ED FND 6430 Critical Race Theory in Education: 3 semester hours**

Prerequisites: Graduate Standing. A treatment of Critical Race Theory (CRT) in educational research. At the end of the semester, students will be able to articulate a personal perspective on CRT and how it could be utilized as a research philosophy and methodology.

**ED FND 6431 History of African American Education: 3 semester hours**

Prerequisites: Graduate Standing. Exploration of the history of education for African Americans. Among the topics investigated will be provision of schooling by the community and/or state; curriculum debates (i.e., vocational vs. classical), and official policies (and informal practices) surrounding segregation, desegregation, and resegregation. Also explores contested interpretations and the myriad ways that memories and meanings intersect through individuals and communities over education and its value.

**ED FND 6497 Problems: 1-10 semester hours**

## Courses

**ED FND 3251 Black Americans In Education: 3 semester hours**

An examination and analysis of conditions affecting the education of black Americans and their schools, with emphasis on relationships between schools and the black community, and needed changes in education.

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**ED FND 6497 Problems: 1-10 semester hours**

## Educational Psychology

## Courses

### ***ED PSY 2212 Introduction To Learners And Learning: 3 semester hours***

Prerequisite: PSYCH 1003. This course examines, discusses and applies theories on infant, child, and adolescent development; examines student growth in various domains, including cognitive, linguistic, physical, and socio-emotional; and analyzes how different cultural contexts affect learning. Through readings, in-class activities, and field assignments outside of class time, students will consider how to apply these theories to create appropriate learning environments.

### ***ED PSY 3312 Psychology of Learning, Instruction, and Assessment: 3 semester hours***

Prerequisites: TCH ED 2209, ED PSY 2212 or equivalents and admission to Teacher Education program. Application of educational psychology theories and research to learning, instruction, and assessment. Candidates will gain experience working with individuals and groups in settings that will provide the opportunity to design and evaluate instruction and assessment. Field assignments outside of class hours required.

### ***ED PSY 6030 Instruction, Learning And Assessment: 3 semester hours***

Prerequisite: Admission to Graduate School. Reviews cognitive theories and research to examine how teachers can improve the design of classroom instruction, including the development of units, lesson plans, and assessment strategies. Students will critically evaluate current educational practices, design appropriate assessments based on instructional goals, and assess their own professional development as teachers.

### ***ED PSY 6109 Learning And Development In Secondary School Settings: 4 semester hours***

Prerequisites: Graduate standing and admission to the secondary teacher education program. Investigation of teaching and learning theories and research on the developmental needs of pre-adolescent and adolescent students. Issues of cognition, moral and social development, motivation, and assessment will be analyzed and debated. Emphasis will be on theoretical and practical approaches to constructing and analyzing a learning system. Includes field experiences.

### ***ED PSY 6111 Psychology Of Education: 3 semester hours***

Current psychological theories and research that guide inquiry and decision making in education. Topics surveyed include behavior, development, learning, instruction.

### ***ED PSY 6113 Psychopathology And Diagnosis: 3 semester hours***

Same as CNS ED 6070. Prerequisites: Graduate Standing. Covers etiology, assessment and diagnosis of mental disorders using contemporary diagnostic systems. Course materials and assignments address the dynamics of adjustment and treatment implications for counselors, school psychologists, and others in the helping professions.

### ***ED PSY 6210 Life-Span: Individual and Family Development: 3 semester hours***

Prerequisites: Graduate Standing Critical analyses of theories of human development including readings from empirical research and cross-cultural comparisons focusing on strategies to enhance developmental outcomes through relationship and environmental opportunity.

### ***ED PSY 6215 Psychology Of Early Childhood Development: 3 semester hours***

Prerequisites: ED PSY 6111 or consent of instructor. A survey of the theories, concepts and research which inform the field of early childhood development and help caregivers and teachers understand the cognitive, social, and emotional changes that take place from birth through the primary years of schooling.

### ***ED PSY 6217 Foundations Of Citizenship Education: 3 semester hours***

Prerequisites: Graduate Standing Introduction to citizenship education providing a range of knowledge of civic participation, concepts of democracy, the democratic purposes of education, and the developmental of civic identity and political thinking, attitudes, and engagement. Comparison of historical and contemporary approaches to democratic citizenship education in the United States.

### ***ED PSY 6225 The Psychology Of Adolescence: 3 semester hours***

Prerequisites: ED PSY 6111 or consent of instructor. Current research on the psychological changes which occur during adolescence. Attention is paid to the family, school, peer groups, and contemporary settings that practitioners must understand to help young people meet the psychosocial challenges of adolescence.

### ***ED PSY 6310 Psychology Of Learning Processes: 3 semester hours***

Prerequisites: ED PSY 6111, Psychology of Education. Advanced study of learning and instructional theories. The historical and theoretical bases of instructional practice are examined.

### ***ED PSY 6404 Seminar: 1-10 semester hours***

### ***ED PSY 6417 Current Perspectives On Citizenship Education: 3 semester hours***

Prerequisite: ED PSY 6217 Seminar extends students' understanding of theory and research in citizenship education by applying it to practical programs in the US and abroad. Analysis of assumptions underlying methods of citizenship education and its goals. Exploration of research on methods that promote, facilitate, or inhibit civic participation and citizenship competence.

### ***ED PSY 6444 Cognition And Technology: 3 semester hours***

Same as ED TECH 6444. Prerequisites: ED PSY 6111 or consent of instructor. Examines cognitive theories and computer-based tools for learning. Students will gain a critical understanding of the relationship between the design of technological tools, the use of those tools in educational settings, and their implications for learning.

### ***ED PSY 6445 Character Education And Development: 3 semester hours***

Prerequisites: ED PSY 6111 and ED PSY 6220 or ED PSY 6225 Critical survey of theories of character development and models for character education in childhood and adolescence. Includes empirical and conceptual study of the nature of moral character how it develops, and how it can be fostered in schools.

### ***ED PSY 6448 Technology-Supported Inquiry Learning: 3 semester hours***

Same as ED TECH 6448. Prerequisites: ED TECH 5340 and ED PSY 6310 or consent of Instructor. Educational technology such as networked computers and software can play a supportive role in inquiry-based learning. Students will explore the theoretical background, design issues, pragmatic realities of technology-supported inquiry learning environments. Such learning environments are best understood as systems involving social, cultural, material and psychological aspects. Consideration will be given to the important properties of settings, activities and technologies, as well as to the role of instructors.



**ED PSY 6450 Advanced Methods In Character Education: 3 semester hours**

Prerequisites: ED PSY 6445 Advanced exploration of methods for promoting character development in schools: class meetings, democratic processes, cross-age learning and character curriculum development. Methods will be critically examined for their empirical and theoretical justifications.

**ED PSY 6497 Problems: 1-10 semester hours****ED PSY 6530 Foundations Of School Psychology: 3 semester hours**

Prerequisites: Admission to the School Psychology Program or consent of instructor. Examines the professional roles, responsibilities, and functions of psychologists in schools. Focuses on educational foundations of school psychology including the history of the profession, organization and operation of schools, and emergent technologies.

**ED PSY 6532 Psychoeducational Differences: 3 semester hours**

Prerequisites: Graduate Standing Examination of classification systems used with children and adolescents in the diagnosis and treatment of educational and physical disabilities, mental disorders, and other developmental challenges.

**ED PSY 6536 Biological Bases Of Behavior: 3 semester hours**

Prerequisites: Graduate Standing Examination of biological factors affecting human behavior. Includes an overview of neuroscience, developmental psychophysiology, and basic psychopharmacology. Implications for psychological and educational interventions are considered.

**ED PSY 6540 Psychoeducational Interventions: 3 semester hours**

Prerequisites: Grades of B or better in ED REM 6718 or consent of instructor. Examines academic and instructional interventions, both preventive and remedial, that are delivered in schools and related settings with children and adolescents. Emphasizes linking assessment and intervention via use of direct and indirect service delivery.

**ED PSY 6542 Social-Emotional and Behavior Interventions: 3 semester hours**

Prerequisites: Grade of B or better in SPEC ED 6325 or consent of instructor. Provides instruction and practice in the use of the problem-solving model to address common social-emotional and behavior problems found in schools. Special emphasis is given to research-based, early intervention and targeted intervention techniques that improve student behavior. Concurrent placement in a school or related setting is necessary to complete course assignments.

**ED PSY 6545 Consultation In Schools And Related Settings: 3 semester hours**

Prerequisites: Admission to the School Psychology or Special Education Program, or consent of instructor. Examines the theories, research, and legal/ethical issues related to consultation in schools and related settings. Emphasis on understanding the process of consultation using a problem-solving approach. Includes instruction in interviewing, observation, and development and evaluation of interventions.

**ED PSY 6550 Professional Issues In School Psychology: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6530 or consent of instructor. Advanced examination of professional issues facing school psychologists including legal and ethical considerations, standards of practice, models of service delivery, and emergent technologies.

**ED PSY 6590 School Psychology Practicum I: 3 semester hours**

Prerequisites: Grades of B or better in ED PSY 6550 and ED REM 6718. Introductory supervised experience in psychoeducational assessment and interventions for academic and behavior problems in schools and related settings. Settings and responsibilities determined in consultation with program faculty and site supervisor.

**ED PSY 6591 School Psychology Practicum II: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6590. Advanced supervised experience in consultation, problem solving, psychoeducational assessment and interventions for academic and behavior problems in schools and related settings. Settings and responsibilities determined in consultation with program faculty and site supervisor.

**ED PSY 6598 School Psychology Internship I: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6591. Supervised field-based placement in an approved school or educational setting under the supervision of an appropriately credentialed school psychologist. Course is eligible for graduate equivalency credit.

**ED PSY 6599 School Psychology Internship II: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6598. Advanced supervised field-based placement in an approved school or educational setting under the supervision of an appropriately credentialed school psychologist. Course is eligible for graduate equivalency credit.

**ED PSY 6990 Internship: 1-10 semester hours**

Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**ED PSY 7210 Theories of Development and the Life Course: 3 semester hours**

Prerequisites: Doctoral standing and at least one course in human development (e.g., ED PSY 6210 or ED PSY 6225), or consent of instructor. This advanced course examines the historical, ecological, cultural, and individual factors that shape developmental and educational experiences. Diverse families and their trajectories will be highlighted to demonstrate the intersecting spheres that shape human development. Students will critique research from multiple disciplines, analyze policy issues, and design a study to deepen their understanding of traditional and current theories on the life course.

**ED PSY 7640 Changing Perspectives In Educational Psychology: 3 semester hours**

Prerequisites: Doctoral Student Standing or consent of instructor The advanced exploration of foundational issues in educational psychology. Topics include theoretical perspectives on modes of analysis used in the investigation of psychological theories and concepts in education.

**ED PSY 7647 Teaching For Learning In The University: 3 semester hours**

Prerequisites: Graduate standing and consent of instructor An examination of current research in learning, instruction, motivation, and assessment as it pertains to teaching and learning in post-secondary settings. Designed to guide graduate students to promote active and meaningful learning in college classrooms to develop college students' critical thinking skills. Graduate students across the disciplines may enroll.



## Courses

### ***ED PSY 2212 Introduction To Learners And Learning: 3 semester hours***

Prerequisite: PSYCH 1003. This course examines, discusses and applies theories on infant, child, and adolescent development; examines student growth in various domains, including cognitive, linguistic, physical, and socio-emotional; and analyzes how different cultural contexts affect learning. Through readings, in-class activities, and field assignments outside of class time, students will consider how to apply these theories to create appropriate learning environments.

### ***ED PSY 3312 Psychology of Learning, Instruction, and Assessment: 3 semester hours***

Prerequisites: TCH ED 2209, ED PSY 2212 or equivalents and admission to Teacher Education program. Application of educational psychology theories and research to learning, instruction, and assessment. Candidates will gain experience working with individuals and groups in settings that will provide the opportunity to design and evaluate instruction and assessment. Field assignments outside of class hours required.

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Prerequisite: Admission to Graduate School. Reviews cognitive theories and research to examine how teachers can improve the design of classroom instruction, including the development of units, lesson plans, and assessment strategies. Students will critically evaluate current educational practices, design appropriate assessments based on instructional goals, and assess their own professional development as teachers.

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Prerequisites: Grades of B or better in ED REM 6718 or consent of instructor. Examines academic and instructional interventions, both preventive and remedial, that are delivered in schools and related settings with children and adolescents. Emphasizes linking assessment and intervention via use of direct and indirect service delivery.

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Prerequisites: Grade of B or better in SPEC ED 6325 or consent of instructor. Provides instruction and practice in the use of the problem-solving model to address common social-emotional and behavior problems found in schools. Special emphasis is given to research-based, early intervention and targeted intervention techniques that improve student behavior. Concurrent placement in a school or related setting is necessary to complete course assignments.

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Prerequisites: Admission to the School Psychology or Special Education Program, or consent of instructor. Examines the theories, research, and legal/ethical issues related to consultation in schools and related settings. Emphasis on understanding the process of consultation using a problem-solving approach. Includes instruction in interviewing, observation, and development and evaluation of interventions.

**ED PSY 6550 Professional Issues In School Psychology: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6530 or consent of instructor. Advanced examination of professional issues facing school psychologists including legal and ethical considerations, standards of practice, models of service delivery, and emergent technologies.

**ED PSY 6590 School Psychology Practicum I: 3 semester hours**

Prerequisites: Grades of B or better in ED PSY 6550 and ED REM 6718. Introductory supervised experience in psychoeducational assessment and interventions for academic and behavior problems in schools and related settings. Settings and responsibilities determined in consultation with program faculty and site supervisor.

**ED PSY 6591 School Psychology Practicum II: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6590. Advanced supervised experience in consultation, problem solving, psychoeducational assessment and interventions for academic and behavior problems in schools and related settings. Settings and responsibilities determined in consultation with program faculty and site supervisor.

**ED PSY 6598 School Psychology Internship I: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6591. Supervised field-based placement in an approved school or educational setting under the supervision of an appropriately credentialed school psychologist. Course is eligible for graduate equivalency credit.

**ED PSY 6599 School Psychology Internship II: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6598. Advanced supervised field-based placement in an approved school or educational setting under the supervision of an appropriately credentialed school psychologist. Course is eligible for graduate equivalency credit.

**ED PSY 6990 Internship: 1-10 semester hours**

Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**ED PSY 7210 Theories of Development and the Life Course: 3 semester hours**

Prerequisites: Doctoral standing and at least one course in human development (e.g., ED PSY 6210 or ED PSY 6225), or consent of instructor. This advanced course examines the historical, ecological, cultural, and individual factors that shape developmental and educational experiences. Diverse families and their trajectories will be highlighted to demonstrate the intersecting spheres that shape human development. Students will critique research from multiple disciplines, analyze policy issues, and design a study to deepen their understanding of traditional and current theories on the life course.

**ED PSY 7640 Changing Perspectives In Educational Psychology: 3 semester hours**

Prerequisites: Doctoral Student Standing or consent of instructor The advanced exploration of foundational issues in educational psychology. Topics include theoretical perspectives on modes of analysis used in the investigation of psychological theories and concepts in education.

**ED PSY 7647 Teaching For Learning In The University: 3 semester hours**

Prerequisites: Graduate standing and consent of instructor An examination of current research in learning, instruction, motivation, and assessment as it pertains to teaching and learning in post-secondary settings. Designed to guide graduate students to promote active and meaningful learning in college classrooms to develop college students' critical thinking skills. Graduate students across the disciplines may enroll.

## Educational Research And Evaluation Method

## Courses

### ***ED REM 3721 Psychoeducational Assessment and Evaluation: 3 semester hours***

Review of measurement concepts and use of psychoeducational assessment data gathered via interview, observation, norm-referenced, and curriculum-based assessment methods. Special emphasis on progress monitoring and data-based decision making.

### ***ED REM 6040 Educational Research for Teachers: 3 semester hours***

Prerequisites: TCH ED 6010 and TCH ED 6020. This course provides the basic knowledge and skills needed by educators to understand and engage in educational research. Educators will learn and use both analytic and practical tools for studying teaching, learning, and assessment in educational contexts, including their own classroom.

### ***ED REM 6497 Problems: 1-10 semester hours***

Prerequisite: At least one previous ED REM course and consent of course supervisor. Individual study on topics pertaining to educational measurement, evaluation, statistics and research design.

### ***ED REM 6707 Classroom Measurement And Evaluation: 3 semester hours***

Prerequisites: Graduate admission or consent of instructor An introductory graduate course to classroom testing and evaluation. Topic areas include comparison of criterion-and normreferenced theory and technique; classical test theory, reliability, validity, and associated descriptive statistics; derived and transformed scores; preparation of instructional objectives for use in developing the classroom test, performance evaluations, and portfolio rubrics; use of evaluation to assess student achievement and instructional effectiveness.

### ***ED REM 6709 Educational And Psychological Measurement: 3 semester hours***

Prerequisites: Graduate admission or consent of instructor An introductory graduate course in testing and measurement theory: reliability, validity, and associated descriptive statistics; correlation and simple regression; derived and transformed scores; interpretation of test scores; measurement of aptitude, vocational interests, and personal-social adjustment.

### ***ED REM 6710 Educational Research Methods and Design: 3 semester hours***

Prerequisites: An introductory statistics course or ED REM 6707 or ED REM 6709 or consent of instructor An introductory course in educational research methodology: comparison of various types of qualitative and quantitative educational research, threats to internal/external validity, sampling methods, data analyses, and components of research reports.

### ***ED REM 6714 Action Research In Education: 3 semester hours***

Prerequisites: ED REM 6710 or consent of instructor A course that engages the participants in systematic qualitative inquiry into their own practice: framing appropriate questions; gathering and interpreting data; analyzing culture, subjectivity and multiple perspectives; and reporting the results ("telling the story"). Readings will address the methods, politics, and ethics of action research. Enrollment requires access to a field setting.

### ***ED REM 6716 Academic Assessment and Intervention: 3 semester hours***

Prerequisites: Graduate Standing. Provides instruction in measurement concepts, interpretation of cognitive ability tests, and use of norm-referenced and curriculum-based assessment techniques in developing academic interventions. Special attention is given to data-based decision making and the links among instruction, assessment, and intervention.

### ***ED REM 6718 Psychoeducational Assessment And Intervention: 3 semester hours***

Prerequisites: Grade of B or better in ED PSY 6530 or CNS ED 6050, or consent of instructor. Reviews measurement concepts and covers administration, scoring, interpretation, and reporting of individually administered tests of academic and cognitive abilities. Special attention is given to the link between assessment and intervention.

### ***ED REM 6719 Advanced Psychoeducational Assessment and Intervention: 3 semester hours***

Prerequisites: Grade of B or better in ED REM 6718 or consent of instructor. Instruction is provided in advanced and specialized assessment, diagnostic, and intervention techniques for individuals with intellectual disabilities, emotional or behavior disorders, and other low incidence disabilities experienced by children and youth.

### ***ED REM 6730 Educational Program Evaluation: 3 semester hours***

Prerequisites: ED REM 6750 or consent of instructor. A course on the principles and procedures for assessing the quality and effectiveness of programs, projects, and materials related to planned interventions and system changes in educational settings.

### ***ED REM 6732 Advanced Theory And Practice In Educational Program Evaluation: 3 semester hours***

Prerequisites: ED REM 6730, or consent of the instructor Extension of the principles, attributes, and practice of program evaluation to contemporary problems and settings. Study will include the comparison of examples of the program evaluation process. Focus will be on adherence to the Program Evaluation Standards endorsed by leading professional research and evaluation associations.

### ***ED REM 6735 Statistical Analysis For Education Research: 3 semester hours***

Prerequisites: Graduate Standing Provides students with a fundamental intermediate understanding of quantitative methods and their relationship to social science research in education. This course is designed to provide statistical background to students who will pursue advanced degrees in education. Students will conduct lab data analysis based on the topics covered in the class and learn how to generate specific research questions and conduct basic statistical analysis.

### ***ED REM 6750 Advanced Research Design In Education: 3 semester hours***

Prerequisites: ED REM 6735 or consent of instructor. Course is designed to provide students with a thorough background in the fundamental principles of research design in education, and the knowledge and skills necessary to design and carry out studies appropriate to a wide variety of research problems. It focuses on tailoring the research design and methodology to most effectively address the problem or issue of concern, including qualitative, quantitative, and mixed-method designs. This is an experiential course designed around active discussion by students each week, and requires each student to develop a detailed research proposal for conducting a study to examine an appropriate educational research problem.

### ***ED REM 6990 Internship: 1-10 semester hours***

Prerequisite: consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.



**ED REM 7711 Advanced Test Theory In Education: 3 semester hours**

Prerequisites: ED REM 6750. An advanced course in measurement theory and practice: issues of reliability, validity, and item analysis for both criterion and norm referenced tests; introduction to factor analysis in the development and analysis of test structure and validity; introduction to item response theory for the improvement of educational testing and research.

**ED REM 7712 Discourse Analysis In Education: 3 semester hours**

Prerequisites: Graduate Standing. The role of language in social life is of paramount concern to educational researchers. The purpose of this course is to introduce students to theories and methods of discourse analysis. Students will become familiar with the methods used in conversation analysis, critical discourse analysis and mediated or multimodal discourse analysis. Topics include transcription theory and practice, the role of context in discourse analysis, the ethics of representation and the place of action in discourse analysis. Students will engage with the theories and methods for analyzing educational interactions such as small-group discussions, education documents, classroom scenes, in-depth interviews, and naturally occurring conversations.

**ED REM 7740 Historical Research Methods in Education: 3 semester hours**

Prerequisites: Doctoral Standing. Survey of the methodology of historical research in education and historical writing about educational issues. Specific topics will include the historiography of education; working with primary and secondary documents; oral history as method and documentation; quantitative approaches to history; constructing historical narratives; and the question of interpretation.

**ED REM 7771 Quantitative Research Methods I: 3 semester hours**

Prerequisites: ED REM 6735. A second course in advanced Educational research methods sequence, with focus on multiple regression analysis and its applications to educational and psychological research.

**ED REM 7772 Quantitative Research Methods II: 3 semester hours**

Prerequisites: ED REM 7771 or consent of instructor An advanced educational research methods course: multivariate analysis of variance, canonical correlation, discriminant function analysis, factor analysis, cluster analysis, advanced topics in multiple linear regression; and associated research design issues.

**ED REM 7773 Quantitative Research Methods III: 3 semester hours**

Prerequisites: ED REM 7772 An advanced educational research methods course using multiple linear regression models, path analysis, and structural equation modeling. Focus is on the theory, issues and application of these advanced data analysis techniques.

**ED REM 7781 Qualitative Methods In Educational Research I: 3 semester hours**

Prerequisites: ED REM 6750 or consent of instructor. An introductory qualitative research methods course in education to develop skill in forming research questions, writing field notes, and collecting, organizing, and analyzing a variety of data. The design issues of triangulation subjectivity, and trustworthiness are explored. Ethics and ethical issues in qualitative research are presented.

**ED REM 7782 Qualitative Methods In Educational Research II: 3 semester hours**

Prerequisites: ED REM 7781 or consent of instructor An advanced qualitative educational research methods course to address the issues of sampling strategies, observational and interview techniques, questionnaire construction, and data analysis. Requires access to a field setting to conduct a qualitative research study.

**Courses****ED REM 3721 Psychoeducational Assessment and Evaluation: 3 semester hours**

Review of measurement concepts and use of psychoeducational assessment data gathered via interview, observation, norm-referenced, and curriculum-based assessment methods. Special emphasis on progress monitoring and data-based decision making.

**ED REM 6040 Educational Research for Teachers: 3 semester hours**

Prerequisites: TCH ED 6010 and TCH ED 6020. This course provides the basic knowledge and skills needed by educators to understand and engage in educational research. Educators will learn and use both analytic and practical tools for studying teaching, learning, and assessment in educational contexts, including their own classroom.

**ED REM 6497 Problems: 1-10 semester hours**

Prerequisite: At least one previous ED REM course and consent of course supervisor. Individual study on topics pertaining to educational measurement, evaluation, statistics and research design.

**ED REM 6707 Classroom Measurement And Evaluation: 3 semester hours**

Prerequisites: Graduate admission or consent of instructor An introductory graduate course to classroom testing and evaluation. Topic areas include comparison of criterion-and normreferenced theory and technique; classical test theory, reliability, validity, and associated descriptive statistics; derived and transformed scores; preparation of instructional objectives for use in developing the classroom test, performance evaluations, and portfolio rubrics; use of evaluation to assess student achievement and instructional effectiveness.

**ED REM 6709 Educational And Psychological Measurement: 3 semester hours**

Prerequisites: Graduate admission or consent of instructor An introductory graduate course in testing and measurement theory: reliability, validity, and associated descriptive statistics; correlation and simple regression; derived and transformed scores; interpretation of test scores; measurement of aptitude, vocational interests, and personal-social adjustment.

**ED REM 6710 Educational Research Methods and Design: 3 semester hours**

Prerequisites: An introductory statistics course or ED REM 6707 or ED REM 6709 or consent of instructor An introductory course in educational research methodology: comparison of various types of qualitative and quantitative educational research, threats to internal/external validity, sampling methods, data analyses, and components of research reports.

**ED REM 6714 Action Research In Education: 3 semester hours**

Prerequisites: ED REM 6710 or consent of instructor A course that engages the participants in systematic qualitative inquiry into their own practice: framing appropriate questions; gathering and interpreting data; analyzing culture, subjectivity and multiple perspectives; and reporting the results ("telling the story"). Readings will address the methods, politics, and ethics of action research. Enrollment requires access to a field setting.

**ED REM 6716 Academic Assessment and Intervention: 3 semester hours**

Prerequisites: Graduate Standing. Provides instruction in measurement concepts, interpretation of cognitive ability tests, and use of norm-referenced and curriculum-based assessment techniques in developing academic interventions. Special attention is given to data-based decision making and the links among instruction, assessment, and intervention.



**ED REM 6718 Psychoeducational Assessment And Intervention: 3 semester hours**

Prerequisites: Grade of B or better in ED PSY 6530 or CNS ED 6050, or consent of instructor. Reviews measurement concepts and covers administration, scoring, interpretation, and reporting of individually administered tests of academic and cognitive abilities. Special attention is given to the link between assessment and intervention.

**ED REM 6719 Advanced Psychoeducational Assessment and Intervention: 3 semester hours**

Prerequisites: Grade of B or better in ED REM 6718 or consent of instructor. Instruction is provided in advanced and specialized assessment, diagnostic, and intervention techniques for individuals with intellectual disabilities, emotional or behavior disorders, and other low incidence disabilities experienced by children and youth.

**ED REM 6730 Educational Program Evaluation: 3 semester hours**

Prerequisites: ED REM 6750 or consent of instructor. A course on the principles and procedures for assessing the quality and effectiveness of programs, projects, and materials related to planned interventions and system changes in educational settings.

**ED REM 6732 Advanced Theory And Practice In Educational Program Evaluation: 3 semester hours**

Prerequisites: ED REM 6730, or consent of the instructor Extension of the principles, attributes, and practice of program evaluation to contemporary problems and settings. Study will include the comparison of examples of the program evaluation process. Focus will be on adherence to the Program Evaluation Standards endorsed by leading professional research and evaluation associations.

**ED REM 6735 Statistical Analysis For Education Research: 3 semester hours**

Prerequisites: Graduate Standing Provides students with a fundamental intermediate understanding of quantitative methods and their relationship to social science research in education. This course is designed to provide statistical background to students who will pursue advanced degrees in education. Students will conduct lab data analysis based on the topics covered in the class and learn how to generate specific research questions and conduct basic statistical analysis.

**ED REM 6750 Advanced Research Design In Education: 3 semester hours**

Prerequisites: ED REM 6735 or consent of instructor. Course is designed to provide students with a thorough background in the fundamental principles of research design in education, and the knowledge and skills necessary to design and carry out studies appropriate to a wide variety of research problems. It focuses on tailoring the research design and methodology to most effectively address the problem or issue of concern, including qualitative, quantitative, and mixed-method designs. This is an experiential course designed around active discussion by students each week, and requires each student to develop a detailed research proposal for conducting a study to examine an appropriate educational research problem.

**ED REM 6990 Internship: 1-10 semester hours**

Prerequisite: consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**ED REM 7711 Advanced Test Theory In Education: 3 semester hours**

Prerequisites: ED REM 6750. An advanced course in measurement theory and practice: issues of reliability, validity, and item analysis for both criterion and norm referenced tests; introduction to factor analysis in the development and analysis of test structure and validity; introduction to item response theory for the improvement of educational testing and research.

**ED REM 7712 Discourse Analysis In Education: 3 semester hours**

Prerequisites: Graduate Standing. The role of language in social life is of paramount concern to educational researchers. The purpose of this course is to introduce students to theories and methods of discourse analysis. Students will become familiar with the methods used in conversation analysis, critical discourse analysis and mediated or multimodal discourse analysis. Topics include transcription theory and practice, the role of context in discourse analysis, the ethics of representation and the place of action in discourse analysis. Students will engage with the theories and methods for analyzing educational interactions such as small-group discussions, education documents, classroom scenes, in-depth interviews, and naturally occurring conversations.

**ED REM 7740 Historical Research Methods in Education: 3 semester hours**

Prerequisites: Doctoral Standing. Survey of the methodology of historical research in education and historical writing about educational issues. Specific topics will include the historiography of education; working with primary and secondary documents; oral history as method and documentation; quantitative approaches to history; constructing historical narratives; and the question of interpretation.

**ED REM 7771 Quantitative Research Methods I: 3 semester hours**

Prerequisites: ED REM 6735. A second course in advanced Educational research methods sequence, with focus on multiple regression analysis and its applications to educational and psychological research.

**ED REM 7772 Quantitative Research Methods II: 3 semester hours**

Prerequisites: ED REM 7771 or consent of instructor An advanced educational research methods course: multivariate analysis of variance, canonical correlation, discriminant function analysis, factor analysis, cluster analysis, advanced topics in multiple linear regression; and associated research design issues.

**ED REM 7773 Quantitative Research Methods III: 3 semester hours**

Prerequisites: ED REM 7772 An advanced educational research methods course using multiple linear regression models, path analysis, and structural equation modeling. Focus is on the theory, issues and application of these advanced data analysis techniques.

**ED REM 7781 Qualitative Methods In Educational Research I: 3 semester hours**

Prerequisites: ED REM 6750 or consent of instructor. An introductory qualitative research methods course in education to develop skill in forming research questions, writing field notes, and collecting, organizing, and analyzing a variety of data. The design issues of triangulation, subjectivity, and trustworthiness are explored. Ethics and ethical issues in qualitative research are presented.

**ED REM 7782 Qualitative Methods In Educational Research II: 3 semester hours**

Prerequisites: ED REM 7781 or consent of instructor An advanced qualitative educational research methods course to address the issues of sampling strategies, observational and interview techniques, questionnaire construction, and data analysis. Requires access to a field setting to conduct a qualitative research study.

## Educational Technology

## Courses

### ***ED TECH 3135 Technology for Educators: 1 semester hour***

This course will instruct teacher candidates in the use of digital tools in education. Candidates will develop strategies for incorporating current technology developments and social media in educational practice.

### ***ED TECH 4302 Educational Technology Instruction in Educational Agencies: 3 semester hours***

The course focuses on how computers and the internet have changed teaching and learning; how educators can facilitate inquiry-based learning, and on the design and implementation of technology-rich activities and projects. Practices to be explored include making presentations; searching for information and educational resources; organizing, writing, and displaying information and data. Students may not receive credit for both ED TECH 4302 and ED TECH 5301.

### ***ED TECH 4436 Computer-Mediated Teaching and Learning in Education: 3 semester hours***

Explores the theory, research, and practice of using computer-mediated communication and computer-supported collaborative learning in education. Education could be formal or informal, in an institutional setting or not. Students will get experience with several different technologies during the semester.

### ***ED TECH 5301 Introduction To Computers And The Internet In Education: 3 semester hours***

The course focuses on how computers and the internet have changed teaching and learning; how teachers can facilitate learning in inquiry-based, technology-rich classrooms; and on the design and implementation of technology-rich activities and projects. Introduces students to the networked computer as an instructional tool. Course participants will be introduced to how teachers and their students can use computer tools in appropriate ways for different context areas and educational levels. Practices to be explored include making presentations; searching for information and educational resources; organizing writing, and displaying information and data.

### ***ED TECH 5340 Selection And Utilization Of Educational Multimedia: 3 semester hours***

Prerequisites: ED TECH 5301 or consent of instructor Prepares students for selecting and utilizing multimedia technologies for learning. Students will conduct projects involving educational multimedia programs available on computers or over telecommunications networks. The projects will incorporate graphics, sound, and video. The goal of working on these projects is to prepare students to facilitate others' use of multimedia in classrooms and other educational contexts.

### ***ED TECH 6404 Seminar: 1-10 semester hours***

Prerequisites: ED TECH 5340 or consent of instructor Seminar in educational technology addressing special issues and topics not normally included in the regular educational technology courses.

### ***ED TECH 6416 Teaching & Learning With Technology: Graphical Representational Tools: 3 semester hours***

Prerequisites: ED TECH 5340 or consent of instructor Examines how graphical representation tools can be used to enhance teaching and learning. Students will learn about techniques for visualizing and organizing information and data in science, math, the social sciences, and humanities, and will become familiar with research and practice pertaining to their use in a variety of learning activities and projects.

### ***ED TECH 6435 Instructional Technology And Education Reform: 3 semester hours***

Prerequisites: ED TECH 5340 or consent of instructor Students will learn how to foster changes in uses of technology for learning in schools, based on a historical understanding of previous technology reforms, and a critical assessment of recent reforms. Questions addressed included: What did stakeholders predict and hope for with earlier educational technologies, early uses of the computer and networking, and present technological innovations? What actually happened? Why? How can teachers and other educators help foster and spread effective use of technology for learning?.

### ***ED TECH 6436 Computer-Mediated Communication In Education: 3 semester hours***

Prerequisites: ED TECH 5340 or consent of instructor Explores the theory, research, and practice of using computer-mediated communication and computer-supported collaborative learning in education. Learning environments including elementary, secondary, higher, and adult education will be considered.

### ***ED TECH 6437 Distance Learning Via Networks And Telecommunications: 3 semester hours***

Prerequisites: Graduate Standing The course is an investigation in the ways that learning and teaching across the barriers of time and distance are similar to and different from face to face learning and teaching. Students will study the influence of interactive media: videoconferencing, asynchronous discussions and other commonly used methods.

### ***ED TECH 6444 Cognition And Technology: 3 semester hours***

Same as ED PSY 6444. Prerequisites: ED PSY 6111 or consent of instructor Examines cognitive theories and computer-based tools for learning. Students will gain a critical understanding of the relationship between the design of technological tools, the use of those tools in educational settings, and their implications for learning.

### ***ED TECH 6448 Technology-Supported Inquiry Learning: 3 semester hours***

Prerequisites: ED TECH 5340 and ED PSY 6310 or consent of instructor. Educational technology such as networked computers and software can play a supportive role in inquiry-based learning. Students will explore the theoretical background, design issues, and pragmatic realities of technology-supported inquiry learning environments. Such learning environments are best understood as systems involving social, cultural, material and psychological aspects. Consideration will be given to the important properties of settings, activities and technologies, as well as the role of instructors.

### ***ED TECH 6449 Using Technology In Administration Processes: 3 semester hours***

Same as ED ADM 6449. Prerequisites: A course in measurement, statistics or evaluation, or consent of instructor. The course will explore how the use of data analysis with technology can be applied in the administration of schools or other work settings. Administrators will explore software tools and their implications for making decisions. A case study will be completed on the implementation of a technology in a school or other appropriate setting.

### ***ED TECH 6452 Educational Multimedia Design: 3 semester hours***

Prerequisite: ED TECH 5340 or consent of instructor. Examines principles and techniques for the design of visually and functionally effective multimedia educational resources. Emphasis will be placed on techniques for the computer-based production of materials incorporating text, graphics, and video Rapid prototyping and evaluation techniques will be incorporated.

**ED TECH 6454 Instructional Video Production: 3 semester hours**

Prerequisites: ED TECH 5340 or consent of instructor Elements of digital video production will be studied and used to produce video for a variety of formats. Students will develop the skill to produce and stream programs for school news programs, video annuals, documentaries and staff development programs.

**ED TECH 6460 Technology Coordination In Schools: 3 semester hours**

Prerequisites: ED TECH 5340, ED TECH 6444, and ED TECH 6448 or consent of instructor. The course provides theoretical and practical knowledge for implementing technology in schools. A major focus will be placed on analyzing the total cost of implementations and methods for measuring educational success.

**ED TECH 6462 Technical System Implementation For Educational Technology - Part 1: 3 semester hours**

Prerequisites: ED TECH 5340 Provides a foundational understanding of technical systems used in educational institutions, with a special emphasis on preparing and configuring computers to connect to a network. Students will learn theory and practice enabling them to install, troubleshoot and configure networked computers for educational purposes.

**ED TECH 6463 Technical System Implementation for Educational Technology Part 2: 3 semester hours**

Prerequisites: ED TECH 6462. Provides an in-depth understanding of technical systems used in educational institutions, with a special emphasis on preparing and configuring computers to connect to a network. Students will extend their knowledge of theory and practice, and will install, troubleshoot, configure networked computers for educational purposes.

**ED TECH 6490 Internship: 1-10 semester hours**

Prerequisite: Consent Of Instructor. Closely Supervised Experience In A Field Setting Under The Direction Of A Graduate Faculty Member. An Appropriate Level Of Competence And Evidence Of Growth In The Professional Role Must Be Demonstrated By The Intern. The Internship Will Include Planning, Research, Evaluation, And Related Professional Activities.

**ED TECH 6497 Problems: 1-10 semester hours**

Prerequisite: ED TECH 5340 or consent of instructor. Individual study on topics pertaining to educational technology.

## Courses

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Explores the theory, research, and practice of using computer-mediated communication and computer-supported collaborative learning in education. Education could be formal or informal, in an institutional setting or not. Students will get experience with several different technologies during the semester.

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**ED TECH 6462 Technical System Implementation For Educational Technology - Part 1: 3 semester hours**

Prerequisites: ED TECH 5340 Provides a foundational understanding of technical systems used in educational institutions, with a special emphasis on preparing and configuring computers to connect to a network. Students will learn theory and practice enabling them to install, troubleshoot and configure networked computers for educational purposes.

**ED TECH 6463 Technical System Implementation for Educational Technology Part 2: 3 semester hours**

Prerequisites: ED TECH 6462. Provides an in-depth understanding of technical systems used in educational institutions, with a special emphasis on preparing and configuring computers to connect to a network. Students will extend their knowledge of theory and practice, and will install, troubleshoot, configure networked computers for educational purposes.

**ED TECH 6490 Internship: 1-10 semester hours**

Prerequisite: Consent Of Instructor. Closely Supervised Experience In A Field Setting Under The Direction Of A Graduate Faculty Member. An Appropriate Level Of Competence And Evidence Of Growth In The Professional Role Must Be Demonstrated By The Intern. The Internship Will Include Planning, Research, Evaluation, And Related Professional Activities.

**ED TECH 6497 Problems: 1-10 semester hours**

Prerequisite: ED TECH 5340 or consent of instructor. Individual study on topics pertaining to educational technology.

## Education

### Courses

**EDUC 1000 Building Community, Culture, and Learning in Education: 3 semester hours**

This course provides opportunities for educator candidates to develop a community of educators-in-training, relationships that will continue throughout academic and professional careers. This course provides experiences for students to interact with a diverse group of educators who work in schools and in community-based organizations, such as teachers, principals, counselors, psychologists, social workers, nurses, librarians, museum curators, and many other kinds of youth development workers in a variety of settings and from a variety of cultures. Content includes introduction to, and applications of, the performance assessment system utilized throughout all curricular programs and essential to learning to evaluate one's experiences, impact, and coursework. The course serves to ground candidates in the education profession, including its diverse career options and programs offered in the College. Coursework addresses what the content and disposition expectations are of UMSL and College of Education students and supports the development of the skills to master those expectations, including research, critical thinking, and writing. This course is a critical component for successful graduation and post-graduate professional and career development.

**EDUC 2204 Special Topics In Education: 1-3 semester hours**

Prerequisite: Completion of 75 hours and consent of instructor. Examination of a special area or topic within the field of education. Topics to be considered will be announced prior to registration and may vary. For elective credit only. This course may be repeated for different topics. Not to exceed a total of six hours credit.



**EDUC 2222 Interpretation: Connecting Audiences and Meaning: 3 semester hours**

Interpretation is a process for forming intellectual and emotional connections between the interests of an audience and the inherent meanings within a resource. This class covers interpretive methods for development and delivery of thematic, non-formal, presentations to various audiences. The class also introduces informal exhibit design, customer service and social media as they relate to interpretation.

**EDUC 2297 Independent Study: 1-3 semester hours**

Prerequisite: Completion of 75 hours and consent of instructor. Independent study through readings, research, reports and conferences designed to provide depth in areas of study previously introduced in education courses. For elective credit only. May be repeated. Not to exceed a total of three hours credit.

**EDUC 4989 Internship I: 3 semester hours**

Prerequisites: Junior Standing, Admission to the Bachelor of Educational Studies Program, and Consent of Instructor. Supervised field experience in educational settings to prepare for planning, research, evaluation, and other professional activities in the student's emphasis area of concentration that will be carried out in EDUC 4990 and EDUC 4991.

**EDUC 4990 Internship II: 6 semester hours**

Prerequisites: EDUC 4989, Senior Standing, and Consent of Instructor. Includes planning, research, evaluation and other professional activities in the student's emphasis area.

**EDUC 4991 Internship III: 6 semester hours**

Prerequisites: Completion of or Concurrent Enrollment in EDUC 4990. Continuation of EDUC 4990.

**EDUC 5006 Graduate Workshop: 1-10 semester hours**

Prerequisite: Consent of instructor.

**EDUC 6308 Graduate Institute: 1-10 semester hours**

Prerequisite: Consent of instructor.

**EDUC 6404 Seminar: 1-10 semester hours**

Seminar on an educational topic or special issue not normally included in the regular curriculum.

**EDUC 6408 Graduate Seminar: 1-10 semester hours**

Prerequisites: Consent of instructor Intensive study of selected issues in education.

**EDUC 6491 Staff Development And Professional Growth: 1-10 semester hours**

Designed in conjunction with an individual school district or educational agency and related to problems of education confronting that specific district or agency.

**EDUC 6998 Thesis Research: 1-10 semester hours**

Prerequisite: Consent of instructor.

**EDUC 7050 The Research Process I:Framing Research Questions Within Educ Lit: 3 semester hours**

Same as ED ADM 7050. Prerequisites: Admission to the Ed.D. or Ph.D. in Education Programs. An overview of the essential elements of research proposals and familiarization with the techniques and tools used to identify important research questions within the education literature. emphasis is placed on exploring the research literature and both framing and justifying research questions within that literature.

**EDUC 7205 Action Research for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D cohort or consent of instructor. Study of small-scale simulations that introduce students to the fundamentals of framing relevant questions, working in community, writing field notes, interviewing, technologies to support and help analyze data, and storytelling. Particular attention will be given to representing perspectives of various stakeholders including students, parents, administrators, and colleagues.

**EDUC 7210 Survey Design for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Application of relevant theories, research, and pedagogical practices in designing surveys for educational settings. Focus on instrument development and design, forming questions and scales, and sampling methods as well as analysis of results and presentation for various target audiences in educational organizations and settings.

**EDUC 7215 Data Analysis for Educational Practitioner: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Guided workshop to conduct quantitative and/or qualitative analysis on data collected by learning communities. Develops specific skills necessary for research, e.g., using software for statistical or qualitative analysis, coding interviews or observation notes for patterns, doing critical discourse analysis, etc.

**EDUC 7220 Designing Research for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Guided workshop, applying the principles of research design, to design a study of the research issues selected by the learning community. Course covers how to develop research questions, choose among quantitative and qualitative methods, and consider the best, ethical practices.

**EDUC 7225 Ethnography for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. The study of ethnography as a methodology to engage in field research and provide the conceptual, theoretical, and empirical knowledge base for action research.

**EDUC 7230 Interviewing for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Provides opportunities for developing skills in interviewing individuals and groups to identify, describe, assess and compare educational programs, practices and policies. Emphasis on interviewing experts in the field and research participants in educational research field studies.

**EDUC 7295 Inquiry Seminar for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Seminar on a specified approach to inquiry in order to obtain or analyze information of interest to scholar-practitioners leading educational programs through continuous improvement cycles.

**EDUC 7305 Representing Data for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. learning community or permission of instructor, Methods for presenting and displaying various types of data to a range of target audiences. Means of assuring accurate representation and the advantages and disadvantages of various methods are reviewed. Displays include tables, graphs, and charts. Current software programs to aid representation are reviewed.

**EDUC 7310 Integrating Technology in Learning for Educational: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Appropriate technology tools for carrying out individual or group research and assessment projects will be identified and integrated. The appropriate tools will be learned and applied to present, analyze and complete projects.

**EDUC 7315 Project Management for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to the Ed.D. program or consent of instructor. Tools for and approaches to managing complex projects in educational organizations, including establishing goals, subdivision of work, formation of work groups, planning and scheduling, establishing and tracking time lines, deployment of resources to complete a project, and addressing constraints. Use of current software for charting and reporting projects.

**EDUC 7320 Financial and Budgeting Skills for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Examines budgeting and finance systems of educational institutions, both from the perspective of theory, research and policy development, and from the perspective of actual budgeting and practice. There will also be an emphasis on the impact of federal and state policy regarding the finance of educational institutions, as well as the processes by which budgets are developed and resources allocated.

**EDUC 7325 Grant Writing for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Provides hands-on help for current and would-be grant writers. Examines search tools to locate likely request for proposals, explores text and sub-text issues, develops a timeline for grant development and submission, provides practice on how a peer review system works, considers issues related to revision and follows the real processes engaged in by successful grant recipients.

**EDUC 7330 Human Relations Skills for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to Ed.D. program or consent of instructor. Exposure for educational practitioners in a variety of leadership roles to basic human relations skills, effective interventions which can be made with the individual worker, and assessment skills to enable the leader to determine if referral to a mental health professional is warranted. Effective ways of confronting employees because of impaired job performance, giving performance evaluations, providing career development and planning information, identifying work transitions in their employees, and identifying stress and stressors in the work environment, along with identifying substance abusing workers and deciding what to do about them.

**EDUC 7395 Tool Seminar for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Seminar on a specified tool used by leaders of educational institutions or programs for organizational improvement or as part of a continuous improvement cycle.

**EDUC 7415 Topics in Education: 3 semester hours**

Prerequisite: Admission to the doctoral program. Intensive study of a topic in education.

**EDUC 7490 Directed Readings in the Education Research Literature: 1-6 semester hours**

Prerequisite: Doctoral Standing. Independent study of the education research literature in an area defined in consultation with an advisor.

**EDUC 7495 Doctoral Research Tools: 1-6 semester hours**

Prerequisites: ED REM 6710. A structured individual or small group instructional or supervised investigative experience in and with a specific research skill and/or procedure that will be needed in the production of a doctoral dissertation. This course may not substitute for any existing graduate courses that cover the same research tool skills.

**EDUC 7600 Learning Community of Practice I: 1-6 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Applying the scholarship of teaching and learning through asset mapping, inquiry formation, and selected readings. Students explore professional connections, interests, beliefs and reflect on practice.

**EDUC 7605 Scholarship of Teaching and Learning in Educational Practice: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Exploration of learning through practice and reflection within a community of scholars committed to situated best practice in education.

**EDUC 7610 Learning Community of Practice II: 1-6 semester hours**

Prerequisites: EDUC 7600. Identifies and examines research problems by developing skills of inquiry, integrating prior knowledge, and evaluating extant research.

**EDUC 7615 Evaluation of Educational Programs: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Assessment of programs for continuous improvement cycles within educational settings.

**EDUC 7620 Learning Community of Practice III: 1-6 semester hours**

Prerequisites: EDUC 7610. Selection and definition a problem of practice to be addressed through research by the learning community members. Includes building relationships within and outside the learning community and designing structure to support inquiry into a problem of practice.

**EDUC 7625 Building Socially Just Educational Communities: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Examination of the role of culture and the analysis and application of social justice components in learning communities.

**EDUC 7630 Learning Community of Practice IV: 1-6 semester hours**

Prerequisites: EDUC 7620. Design and pilot of the research, selection of tools of inquiry, location of resources and needed support, and analysis of data.

**EDUC 7635 Ethical and Legal Issues in Educational Practice: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Examines legal and ethical perspectives, conflicts and professional practice in education, especially in education leadership. Introduces ethical theories and studies approaches to problem-solving strategies, focusing on anticipating legal issues before they arise; methods and tools to prevent and resolve legal problems will be practiced.

**EDUC 7640 Learning Community of Practice V: 1-6 semester hours**

Prerequisites: EDUC 7630. Preparation of dissertation proposals, consideration of research tools, establishment of process in research sites and attention to the adherence to high ethical standards.

**EDUC 7642 Sociocultural Perspectives In Education: 3 semester hours**

Prerequisite: Doctoral standing and consent of instructor. Investigation of sociocultural theory with a focus on educational applications. Topics include the social formation of mind, language as cultural tool, methodological issues in social science research, and dialogic inquiry as pedagogy.

**EDUC 7650 Learning Community of Practice VI: 1-6 semester hours**

Prerequisites: EDUC 7640. Preparation of dissertation proposals, consideration of research tools, establishment of process in research sites and attention to the adherence to high ethical standards. A continuation of EDUC 7640.

**EDUC 7880 Research Internship I: 3 semester hours**

Prerequisites: Nine hours of research methods or statistics and consent of instructor Supervised experience in the conduct of research studies or scholarly inquiry.

**EDUC 7881 Research Internship II: 3 semester hours**

Prerequisites: EDUC 7880 and consent of instructor Supervised experience in the conduct of research studies or scholarly inquiry.

**EDUC 7882 Research Internship III: 3 semester hours**

Prerequisites: EDUC 7881 and consent of instructor Supervised experience in the conduct of research studies or scholarly inquiry.

**EDUC 7889 Laboratory of Practice: 1-6 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Field experience that bridges theory and practice in solving complex, situated problems of practice.

**EDUC 7950 Research Process II: Developing & Refining Ed Research Proposals: 3 semester hours**

Prerequisites: Completion of 6 hours of ED REM courses numbered 7771 or higher. An in depth examination of the essential elements of a research proposal. Particular emphasis is placed on examining the validity and reliability or the trustworthiness of the design of the proposed research. Tools for identifying research strengths and weaknesses are applied to proposals. Presentation of a written proposal and oral defense of that proposal are required.

**EDUC 7998 Dissertation in Practice Research: 1-8 semester hours**

Prerequisites: Completion of doctoral coursework. Credit awarded upon defense of dissertation in practice.

**EDUC 7999 Dissertation Research: 1-12 semester hours**

Prerequisite: Admission to candidacy in the Education program. Credit awarded only upon successful defense of the dissertation.

**Courses****EDUC 1000 Building Community, Culture, and Learning in Education: 3 semester hours**

This course provides opportunities for educator candidates to develop a community of educators-in-training, relationships that will continue throughout academic and professional careers. This course provides experiences for students to interact with a diverse group of educators who work in schools and in community-based organizations, such as teachers, principals, counselors, psychologists, social workers, nurses, librarians, museum curators, and many other kinds of youth development workers in a variety of settings and from a variety of cultures. Content includes introduction to, and applications of, the performance assessment system utilized throughout all curricular programs and essential to learning to evaluate one's experiences, impact, and coursework. The course serves to ground candidates in the education profession, including its diverse career options and programs offered in the College. Coursework addresses what the content and disposition expectations are of UMSL and College of Education students and supports the development of the skills to master those expectations, including research, critical thinking, and writing. This course is a critical component for successful graduation and post-graduate professional and career development.

**EDUC 2204 Special Topics In Education: 1-3 semester hours**

Prerequisite: Completion of 75 hours and consent of instructor. Examination of a special area or topic within the field of education. Topics to be considered will be announced prior to registration and may vary. For elective credit only. This course may be repeated for different topics. Not to exceed a total of six hours credit.

**EDUC 2222 Interpretation: Connecting Audiences and Meaning: 3 semester hours**

Interpretation is a process for forming intellectual and emotional connections between the interests of an audience and the inherent meanings within a resource. This class covers interpretive methods for development and delivery of thematic, non-formal, presentations to various audiences. The class also introduces informal exhibit design, customer service and social media as they relate to interpretation.

**EDUC 2297 Independent Study: 1-3 semester hours**

Prerequisite: Completion of 75 hours and consent of instructor. Independent study through readings, research, reports and conferences designed to provide depth in areas of study previously introduced in education courses. For elective credit only. May be repeated. Not to exceed a total of three hours credit.

**EDUC 4989 Internship I: 3 semester hours**

Prerequisites: Junior Standing, Admission to the Bachelor of Educational Studies Program, and Consent of Instructor. Supervised field experience in educational settings to prepare for planning, research, evaluation, and other professional activities in the student's emphasis area of concentration that will be carried out in EDUC 4990 and EDUC 4991.

**EDUC 4990 Internship II: 6 semester hours**

Prerequisites: EDUC 4989, Senior Standing, and Consent of Instructor. Includes planning, research, evaluation and other professional activities in the student's emphasis area.

**EDUC 4991 Internship III: 6 semester hours**

Prerequisites: Completion of or Concurrent Enrollment in EDUC 4990. Continuation of EDUC 4990.

**EDUC 5006 Graduate Workshop: 1-10 semester hours**

Prerequisite: Consent of instructor.

**EDUC 6308 Graduate Institute: 1-10 semester hours**

Prerequisite: Consent of instructor.

**EDUC 6404 Seminar: 1-10 semester hours**

Seminar on an educational topic or special issue not normally included in the regular curriculum.

**EDUC 6408 Graduate Seminar: 1-10 semester hours**

Prerequisites: Consent of instructor Intensive study of selected issues in education.

**EDUC 6491 Staff Development And Professional Growth: 1-10 semester hours**

Designed in conjunction with an individual school district or educational agency and related to problems of education confronting that specific district or agency.

**EDUC 6998 Thesis Research: 1-10 semester hours**

Prerequisite: Consent of instructor.

**EDUC 7050 The Research Process I:Framing Research Questions Within Educ Lit: 3 semester hours**

Same as ED ADM 7050. Prerequisites: Admission to the Ed.D. or Ph.D. in Education Programs. An overview of the essential elements of research proposals and familiarization with the techniques and tools used to identify important research questions within the education literature. emphasis is placed on exploring the research literature and both framing and justifying research questions within that literature.

**EDUC 7205 Action Research for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D cohort or consent of instructor. Study of small-scale simulations that introduce students to the fundamentals of framing relevant questions, working in community, writing field notes, interviewing, technologies to support and help analyze data, and storytelling. Particular attention will be given to representing perspectives of various stakeholders including students, parents, administrators, and colleagues.

**EDUC 7210 Survey Design for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Application of relevant theories, research, and pedagogical practices in designing surveys for educational settings. Focus on instrument development and design, forming questions and scales, and sampling methods as well as analysis of results and presentation for various target audiences in educational organizations and settings.

**EDUC 7215 Data Analysis for Educational Practitioner: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Guided workshop to conduct quantitative and/or qualitative analysis on data collected by learning communities. Develops specific skills necessary for research, e.g., using software for statistical or qualitative analysis, coding interviews or observation notes for patterns, doing critical discourse analysis, etc.

**EDUC 7220 Designing Research for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Guided workshop, applying the principles of research design, to design a study of the research issues selected by the learning community. Course covers how to develop research questions, choose among quantitative and qualitative methods, and consider the best, ethical practices.

**EDUC 7225 Ethnography for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. The study of ethnography as a methodology to engage in field research and provide the conceptual, theoretical, and empirical knowledge base for action research.

**EDUC 7230 Interviewing for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Provides opportunities for developing skills in interviewing individuals and groups to identify, describe, assess and compare educational programs, practices and policies. Emphasis on interviewing experts in the field and research participants in educational research field studies.

**EDUC 7295 Inquiry Seminar for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Seminar on a specified approach to inquiry in order to obtain or analyze information of interest to scholar-practitioners leading educational programs through continuous improvement cycles.

**EDUC 7305 Representing Data for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. learning community or permission of instructor, Methods for presenting and displaying various types of data to a range of target audiences. Means of assuring accurate representation and the advantages and disadvantages of various methods are reviewed. Displays include tables, graphs, and charts. Current software programs to aid representation are reviewed.

**EDUC 7310 Integrating Technology in Learning for Educational: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Appropriate technology tools for carrying out individual or group research and assessment projects will be identified and integrated. The appropriate tools will be learned and applied to present, analyze and complete projects.

**EDUC 7315 Project Management for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to the Ed.D. program or consent of instructor. Tools for and approaches to managing complex projects in educational organizations, including establishing goals, subdivision of work, formation of work groups, planning and scheduling, establishing and tracking time lines, deployment of resources to complete a project, and addressing constraints. Use of current software for charting and reporting projects.

**EDUC 7320 Financial and Budgeting Skills for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Examines budgeting and finance systems of educational institutions, both from the perspective of theory, research and policy development, and from the perspective of actual budgeting and practice. There will also be an emphasis on the impact of federal and state policy regarding the finance of educational institutions, as well as the processes by which budgets are developed and resources allocated.



**EDUC 7325 Grant Writing for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor Provides hands-on help for current and would-be grant writers. Examines search tools to locate likely request for proposals, explores text and sub-text issues, develops a timeline for grant development and submission, provides practice on how a peer review system works, considers issues related to revision and follows the real processes engaged in by successful grant recipients.

**EDUC 7330 Human Relations Skills for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to Ed.D. program or consent of instructor. Exposure for educational practitioners in a variety of leadership roles to basic human relations skills, effective interventions which can be made with the individual worker, and assessment skills to enable the leader to determine if referral to a mental health professional is warranted. Effective ways of confronting employees because of impaired job performance, giving performance evaluations, providing career development and planning information, identifying work transitions in their employees, and identifying stress and stressors in the work environment, along with identifying substance abusing workers and deciding what to do about them.

**EDUC 7395 Tool Seminar for Educational Practitioners: 1 semester hour**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Seminar on a specified tool used by leaders of educational institutions or programs for organizational improvement or as part of a continuous improvement cycle.

**EDUC 7415 Topics in Education: 3 semester hours**

Prerequisite: Admission to the doctoral program. Intensive study of a topic in education.

**EDUC 7490 Directed Readings in the Education Research Literature: 1-6 semester hours**

Prerequisite: Doctoral Standing Independent study of the education research literature in an area defined in consultation with an advisor.

**EDUC 7495 Doctoral Research Tools: 1-6 semester hours**

Prerequisites: ED REM 6710. A structured individual or small group instructional or supervised investigative experience in and with a specific research skill and/or procedure that will be needed in the production of a doctoral dissertation. This course may not substitute for any existing graduate courses that cover the same research tool skills.

**EDUC 7600 Learning Community of Practice I: 1-6 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Applying the scholarship of teaching and learning through asset mapping, inquiry formation, and selected readings. Students explore professional connections, interests, beliefs and reflect on practice.

**EDUC 7605 Scholarship of Teaching and Learning in Educational Practice: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Exploration of learning through practice and reflection within a community of scholars committed to situated best practice in education.

**EDUC 7610 Learning Community of Practice II: 1-6 semester hours**

Prerequisites: EDUC 7600 Identifies and examines research problems by developing skills of inquiry, integrating prior knowledge, and evaluating extant research.

**EDUC 7615 Evaluation of Educational Programs: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Assessment of programs for continuous improvement cycles within educational settings.

**EDUC 7620 Learning Community of Practice III: 1-6 semester hours**

Prerequisites: EDUC 7610. Selection and definition a problem of practice to be addressed through research by the learning community members. Includes building relationships within and outside the learning community and designing structure to support inquiry into a problem of practice.

**EDUC 7625 Building Socially Just Educational Communities: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Examination of the role of culture and the analysis and application of social justice components in learning communities.

**EDUC 7630 Learning Community of Practice IV: 1-6 semester hours**

Prerequisites: EDUC 7620 Design and pilot of the research, selection of tools of inquiry, location of resources and needed support, and analysis of data.

**EDUC 7635 Ethical and Legal Issues in Educational Practice: 2 semester hours**

Prerequisites: Admission to an Ed.D. cohort or consent of instructor. Examines legal and ethical perspectives, conflicts and professional practice in education, especially in education leadership. Introduces ethical theories and studies approaches to problem-solving strategies, focusing on anticipating legal issues before they arise; methods and tools to prevent and resolve legal problems will be practiced.

**EDUC 7640 Learning Community of Practice V: 1-6 semester hours**

Prerequisites: EDUC 7630. Preparation of dissertation proposals, consideration of research tools, establishment of process in research sites and attention to the adherence to high ethical standards.

**EDUC 7642 Sociocultural Perspectives In Education: 3 semester hours**

Prerequisite: Doctoral standing and consent of instructor. Investigation of sociocultural theory with a focus on educational applications. Topics include the social formation of mind, language as cultural tool, methodological issues in social science research, and dialogic inquiry as pedagogy.

**EDUC 7650 Learning Community of Practice VI: 1-6 semester hours**

Prerequisites: EDUC 7640. Preparation of dissertation proposals, consideration of research tools, establishment of process in research sites and attention to the adherence to high ethical standards. A continuation of EDUC 7640.

**EDUC 7880 Research Internship I: 3 semester hours**

Prerequisites: Nine hours of research methods or statistics and consent of instructor Supervised experience in the conduct of research studies or scholarly inquiry.

**EDUC 7881 Research Internship II: 3 semester hours**

Prerequisites: EDUC 7880 and consent of instructor Supervised experience in the conduct of research studies or scholarly inquiry.

**EDUC 7882 Research Internship III: 3 semester hours**

Prerequisites: EDUC 7881 and consent of instructor Supervised experience in the conduct of research studies or scholarly inquiry.

**EDUC 7889 Laboratory of Practice: 1-6 semester hours**

Prerequisites: Admission to an Ed.D. cohort. Field experience that bridges theory and practice in solving complex, situated problems of practice.

**EDUC 7950 Research Process II: Developing & Refining Ed Research Proposals: 3 semester hours**

Prerequisites: Completion of 6 hours of ED REM courses numbered 7771 or higher. An in depth examination of the essential elements of a research proposal. Particular emphasis is placed on examining the validity and reliability or the trustworthiness of the design of the proposed research. Tools for identifying research strengths and weaknesses are applied to proposals. Presentation of a written proposal and oral defense of that proposal are required.

**EDUC 7998 Dissertation in Practice Research: 1-8 semester hours**

Prerequisites: Completion of doctoral coursework. Credit awarded upon defense of dissertation in practice.

**EDUC 7999 Dissertation Research: 1-12 semester hours**

Prerequisite: Admission to candidacy in the Education program. Credit awarded only upon successful defense of the dissertation.

## Elementary Education

### Courses

**ELE ED 2192 Educational Laboratory/Field Experience: 1-3 semester hours**

A laboratory/field experience requiring systematic observation and/or participation in appropriate educational settings. To precede student teaching. May be repeated to maximum of three hours.

**ELE ED 3330 Literacy, Literature And The Learner: 3 semester hours**

Prerequisites: Level I requirements. Exploration of literature and literacy-related resources available to teachers for children and young people. Emphasis on critical reading of literature for a variety of purposes, including communication, instruction, information, and recreation. Focus on the development of criteria for evaluating and selecting culturally and developmentally appropriate materials for motivating students to read in school and at home, as well as strategies for using literature to build family and school partnerships around reading. Twelve hours of participation in a school classroom setting are required. This course may be applied toward a Literacy Minor.

**ELE ED 3336 Communication Arts Learning And Instruction: 3 semester hours**

Prerequisites: Level I and Level II requirements. Analysis of the six communication arts (listening, speaking, viewing, visually representing, writing, and reading) across content areas. Attention on understanding children's home language and how children learn and develop communication skills. Special emphasis on strategies for assessing and teaching reading and writing, including workshop models, spelling, grammar, and grand conversations to meet the needs of every child. This course may be applied toward a Literacy Minor.

**ELE ED 3337 Teaching and Learning Literacy in the Elementary Classroom: 4 semester hours**

Prerequisite: Level I. The course, emphasizing literacy development, literacy instruction and children's literature, is the first in a sequence of two courses on teaching reading and writing. The purposes of this course are to survey literacy and literacy development as social practices, to focus on methods of teaching reading and writing, and to utilize children's literature within classroom practice. Instructional practices explored will include reading and writing workshops, guided reading, word work and phonics alongside matching texts (print and digital) and readers. Assessment strategies that inform these instructional practices will be introduced. Particular attention will be given to learning to teach literacy within diverse contexts and with multicultural groups of students.

**ELE ED 3338 Literacy Assessment and Learning: 3 semester hours**

Prerequisites: Level II and ELE ED 3337. The purposes of this course are to address issues of the differences and difficulties that may occur in literacy processes, evaluation of students' literacy skills, analysis of texts for their use by readers, and to design classroom literacy engagements that utilize a variety of instructional strategies and materials. Assessment practices explored will include running records, qualitative reading inventories, spelling inventories and writing assessment. Teacher candidates will learn to assess and create literacy instruction that is multicultural and integrates global technologies.

**ELE ED 3389 Classroom Based Assessment To Guide Literacy Instruction: 3 semester hours**

Prerequisites: TCH ED 3315 or TCH ED 4391 or equivalent reading methods course. Analysis of strategies for differentiating instruction for a range of readers and writers across content areas. Focus on cultural and language considerations in the assessment of students' literacy skills. Emphasis on meeting the needs of individual readers and writers in the context of whole class instruction. This course may be applied toward a Literacy Minor.

**ELE ED 4246 Teaching Mathematics In The Elementary School: 3 semester hours**

Prerequisite: Junior standing and completion of mathematics requirements in General Education. Organization and implementation of a modern elementary school mathematics program. If taken concurrently with internship, field hours will be combined within the internship experience. If this course is taken separately, then K-6 based field experiences are required in addition to scheduled course time.

**ELE ED 4253 Teaching Of Social Studies In The Elementary School: 3 semester hours**

Prerequisite: Junior standing and completion of social science requirements in general education. Study of elementary school social studies emphasizing the current social studies curricular content, methods of teaching and instructional materials. If taken concurrently with internship, field hours will be combined within the internship experience. If this course is taken separately, the K-6 based field experiences are required in addition to scheduled course time.

**ELE ED 4320 Classroom Management: 3 semester hours**

Same as ECH ED 4320, SEC ED 4320. Prerequisites: Level I and II courses or consent of instructor. Understanding classroom management as the development of engaging instruction that establishes healthy and culturally appropriate teacher-student relationships, builds successful classroom community and enhances student learning. Participants develop a culturally relevant classroom management plan that includes rules, procedures, expected behaviors and uses problem solving strategies to resolve behavior problems. Emphasis is on the teacher developing the social competence of Pre K-12 students within culturally diverse classrooms and engaging families in supportive interactions.

**ELE ED 4341 Teaching Science In The Elementary School: 3 semester hours**

Prerequisites: Level I and Level II requirements. An analysis of teaching science to K-6 students with emphasis on current science education trends, science curricular materials, and strategies of instruction. If taken concurrently with internship, field hours will be combined within the internship experience. If this course is taken separately, then K-6 based field experiences are required in addition to scheduled course time.

***ELE ED 4342 Addressing Needs In Mathematics Teaching And Learning: 3 semester hours***

Prerequisite: ELE ED 4246. Instructional strategies for analyzing and addressing needs of students who have difficulties understanding and becoming proficient in mathematics. Conceptual development and procedural fluency are approached in a diagnostic and prescriptive context. Course requires that students participate in K-12 classrooms for a minimum of 10 hours, in addition to university class schedule.

***ELE ED 4989 Practicum I: Elementary/Special Education Site Based Experience: 3 semester hours***

Prerequisites: Level I and Level II requirements. This course is an intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to impacting students achievement for diverse populations and differentiated instruction. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Practicum I is taken in the semester immediately preceding Practicum II. Not available for graduate credit.

***ELE ED 4990 Practicum II: Elementary/Special Education Site Based Experience: 12 semester hours***

Prerequisites: Grade of C or higher in ELE ED 4989 and admission to Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms implement inclusion (combined general education and special education) and/or have pull-out resource room settings and may also have self-contained settings where students with complex disabilities are educated exclusively. Not available for graduate credit.

***ELE ED 4991 Elementary School Student Teaching II: 6 semester hours***

Prerequisite: Completion of Level III courses Clinical teaching experience in elementary school classrooms under university and school supervision. Required for all majors in elementary education. Not available for graduate credit.

***ELE ED 4992 Practicum I: Elementary/Special Education/TESOL Site Based Experience: 3 semester hours***

Prerequisites: Completion of Level I and Level II requirements. This course is an intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to differentiated instruction and impacting student achievement for diverse populations. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Practicum I is taken in the semester immediately preceding Practicum II. Not available for graduate credit.

***ELE ED 4993 Practicum II: Elementary/Special Education/TESOL Site Based Experience: 12 semester hours***

Prerequisites: Grade of C or higher in Practicum I and admission to the Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms have ESOL and implement inclusion (combined general education and special education), and/or have pull-out resource room settings and may also have self-contained settings where students with complex disabilities are educated exclusively. Not for graduate credit.

***ELE ED 4994 Practicum I: Elementary/TESOL Site Based Experience: 3 semester hours***

Prerequisites: Completion of Level I and Level II requirements. This course is an intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to differentiated instruction and impacting student achievement for diverse populations. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Practicum I is taken in the semester immediately preceding Practicum II. Not available for graduate credit.

***ELE ED 4995 Practicum II: Elementary/TESOL Site Based Experience: 12 semester hours***

Prerequisites: Grade of C or higher in Practicum I and admission to the Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms include ESOL. Not for graduate credit.

***ELE ED 5989 Practicum I: Elementary/Special Education Site Based Experience: 2 semester hours***

Prerequisites: Graduate standing and Level I & II requirements. An intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to impacting students' achievement for diverse populations and differentiated instruction. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Activities to acquire research skills are included. Practicum I is taken in the semester immediately preceding Practicum II.

***ELE ED 5990 Practicum II: Elementary/Special Education Site Based Experience: 8 semester hours***

Prerequisites: Grade of B- or higher in ELE ED 5989 and admission to Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms implement inclusion (combined general education and special education) and/or have pull-out resource room settings and may also have self-contained settings where students with complex disabilities are education exclusively. Teacher candidates collect data for a research project.

***ELE ED 5992 Practicum I: Elementary/Special Education/TESOL Site Based Experience: 2 semester hours***

Prerequisites: Completion of Level I and Level II requirements. An intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to differentiated instruction and impacting student achievement for diverse populations. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Activities to acquire research skills are included. Practicum I is taken in the semester immediately preceding Practicum II.



***ELE ED 5993 Practicum II: Elementary/Special Education/TESOL Site Based Experience: 8 semester hours***

Prerequisites: Grade of B- or higher in Practicum I and admission to the Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms have ESOL and implement inclusion (combined general education and special education), and/or have pull-out resource room settings and may also have self-contained settings where students with complex disabilities are education exclusively. Teacher candidates collect data for a research project.

***ELE ED 5994 Practicum I: Elementary/TESOL Site Based Experience: 2 semester hours***

Prerequisites: Completion of Level I and Level II requirements. An intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to differentiated instruction and impacting student achievement for diverse populations. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Activities to acquire research skills are included. Practicum I is taken in the semester immediately preceding Practicum II.

***ELE ED 5995 Practicum II: Elementary/TESOL Site Based Experience: 8 semester hours***

Prerequisites: Grade of B- or higher in Practicum I and admission to the Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms include ESOL. Teacher candidates collect data for a research project.

***ELE ED 6387 Literacy Acquisition And Learning For Diverse Students: 3 semester hours***

Prerequisite: Graduate Standing. Designed to extend teacher understanding of children's literacy acquisition, development, and learning through the elementary grades. Emphasis on development of a teaching philosophy and skills which include maintaining effective literacy learning environments in diverse classrooms, fostering culturally responsive classroom communities, understanding social and environmental issues that affect the literacy learning of diverse learners, using effective methods and materials to develop engaged and literate students, and fostering children's participation in literacy activities.

***ELE ED 6410 Current Research In Early Childhood And Elementary Programs: 3 semester hours***

Prerequisites: Graduate Admission A systematic examination of research related to early childhood and elementary school programs. Student will be expected to become effective consumers of educational research and to utilize appropriate research findings in their decision-making processes when planning instruction.

***ELE ED 6411 Curriculum Leadership Elementary Programs: 3 semester hours***

Prerequisite: ED PSY 6030. Learn strategies for development and implementation of up-to date curriculum. Using current research of innovative programs and new approaches, students will develop skills in analyzing and evaluating content area curriculum according to Common Core and national content standards in order to lead curriculum development in an educational setting.

***ELE ED 6422 Curriculum Design of Elementary Programs: 3 semester hours***

Prerequisites: ED PSY 6030, ELE ED 6411 or consent of instructor. A study of current and classic curricular design models of elementary education. Students will select a grade level or subject area curriculum and develop an integrated or differentiated curriculum based on the Common Core and national content standards. Compare and contrast curriculum design approaches while connecting curriculum and instructional practices to student performance.

***ELE ED 6423 Learning Through Inquiry: 3 semester hours***

Prerequisites: ED PSY 6030 or consent of instructor. Students will learn to improve their instruction through using various inquiry models of teaching which develop the thinking skills required by the Common Core standards. Prior instructional experience is recommended.

***ELE ED 6426 Elementary School Curriculum Reform In The Earth/Space Sciences: 1-4 semester hours***

Prerequisites: Graduate standing. Field-based experiences in improving the district-level elementary school science program, with special attention to the earth/space sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. To reflect the number of modules selected by the student, this course may be repeated for a maximum of 4 credit hours.

***ELE ED 6428 Elementary School Curriculum Reform In The Life Sciences: 1-4 semester hours***

Prerequisite: Graduate Standing. Field-based experiences in improving the district-level elementary school science program, with special attention to the life sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. This course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. The course may be repeated for maximum of 4 credit hours.

***ELE ED 6429 Elementary School Curriculum Reform In The Physical Sciences: 1-4 semester hours***

Prerequisite: Graduate standing Field-based experiences in improving the district-level elementary school science program, with special attention to the physical sciences. Emphasis is given to planning and implementing standards-based inquiry science activities that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. The course may be repeated for a maximum of 4 credit hours.

***ELE ED 6436 Children's Literature I: Survey And Analysis: 3 semester hours***

Prerequisite: ELE ED 3330 or equivalent. A survey of children's literature published in the last ten years. Special emphasis will be placed on the relationship between children's literature and contemporary issues of society. Students will experience the materials themselves rather than reading about books. In addition, students will begin to study the literary elements that make literature interesting and meaningful for children.

***ELE ED 6441 Problems And Research In Teaching Elementary School Science: 3 semester hours***

Prerequisite: Eight hours of science, ELE ED 6441, ED PSY 6111. A thorough examination of research related to elementary school science instruction with particular emphasis on innovative programs. Includes methods of investigation and techniques for interpreting the professional literature.



**ELE ED 6445 Problems Of Teaching Mathematics In The Elementary School: 3 semester hours**

A study of the mathematics program in the elementary school from the viewpoint of goals, content, techniques, and evaluation.

**ELE ED 6447 Problems And Research In Teaching Elementary School Mathematics: 3 semester hours**

Prerequisite: ELE ED 6445. A thorough examination of research related to recurrent problems in elementary school mathematics instruction, as well as current problems arising within modern programs. Includes methodology appropriate to investigation of such problems and techniques for assessment of the literature.

**ELE ED 6448 Diagnosis And Remediation Of Disabilities In Learning Mathematics: 3 semester hours**

Prerequisite: ELE ED 6445. Causes of mathematical disabilities. Materials and techniques for diagnoses and corrective programs for children and youth.

**ELE ED 6450 Problems Of Teaching Social Studies In The Elementary School: 3 semester hours**

A classroom-oriented study of curricular and instructional problems encountered in social studies. Emphasis is placed upon development of materials, techniques, and resources.

**ELE ED 6482 Problems And Research In Teaching Elementary School: 3 semester hours**

This is the capstone course for the Master of Elementary Education-Emphasis in Reading. To be taken in the last 9 hours of Masters Program. The three foci for this course are (1) systematic study of research as it focuses on the problems of teaching reading in the elementary school, (2) innovations in the field, and (3) action research. Each student designs and completes an action research project related to literacy.

**ELE ED 6490 Internship: 1-10 semester hours**

Prerequisite: Consent Of Instructor. Closely Supervised Experience In A Field Setting Under The Direction Of A Graduate Faculty Member. An Appropriate Level Of Competence And Evidence Of Growth In The Professional Role Must Be Demonstrated By The Intern. The Internship Will Include Planning, Research, Evaluation, And Related Professional Activities.

**ELE ED 6493 Reading Specialist Practicum I: 3 semester hours**

Prerequisites: ELE ED 6684, ELE ED 6686, and ED REM 6707, ED REM 6709, or ED REM 6716. Application of reading theory and research in a supervised setting. Emphasis on assessing and analyzing the literacy strengths, needs, and interests of a range of readers with the goal of improving their reading abilities and attitudes. Focus is on establishing reading support for children with the assistance of formal and informal assessments, reading professionals, educators, and children's families.

**ELE ED 6494 Reading Specialist Practicum II: 3 semester hours**

Prerequisite: ELE ED 6493 Application of reading theory and research in a supervised setting. Emphasis on using appropriate materials and providing effective instructional techniques to address children's assessed literacy strengths, needs, and interests with the goal of improving their reading abilities and attitudes. Focus is on sustaining reading support for children with the assistance of other reading professionals, educators, and children's families.

**ELE ED 6495 Supervision Of Practicum In Clinical Reading: 3 semester hours**

Prerequisites: ELE ED 6486, ELE ED 6494, ED REM 6716 or consent of instructor Supervising graduate students in diagnosis and remedial process within the reading clinic.

**ELE ED 6497 Problems: 1-10 semester hours**

Selected problems to meet the needs of individual students.

**ELE ED 6684 Instructional Strategies For Teaching Reading: 3 semester hours**

Prerequisites: Graduate standing. Designed to extend teacher knowledge of effective instructional strategies for teaching reading. Emphasis on development of a teaching philosophy which acknowledges children gain considerable knowledge about reading from their families and communities, long before they encounter formal reading instruction. Focus on fostering culturally responsive classrooms using children's prior experiences, their language systems, cross-cultural literature, authentic texts, and other print materials familiar to children's home environments, as well as on teaching effective strategies to promote children's reading success.

**ELE ED 6686 Analysis And Correction Of Reading Disabilities: 3 semester hours**

Prerequisites: ED REM 6707, ED REM 6709, or ED REM 6716 and at least one graduate level literacy course. Designed to develop teacher understanding of the roles and responsibilities of the teacher of reading, Reading Specialist, and Literary Coach. Emphasis on the nature of specific reading difficulties, distinguishing reading difficulty/ disability from language difference, becoming familiar with a range of tools for assessing reading skills and strategies, and developing a critical orientation for evaluating the purpose and utility of various literacy assessment tools. Teachers will use informal and formal literacy assessment tools to guide instructional planning for children in the UMSL Reading Center.

**ELE ED 6688 Literacy Assessment To Guide Instruction: 3 semester hours**

Prerequisites: ED REM 6707, ED REM 6709, or ED REM 6716 and ELE ED 6686 Designed to apply teacher knowledge of the roles and responsibilities of the teacher of reading, Reading Specialist and Literary Coach. Emphasis on using literacy assessment tools and techniques to guide instruction for a range of children, especially in the areas of writing, comprehension, and vocabulary. Teachers will use informal and formal literacy assessment tools to guide instructional planning for children in the UMSL Reading Center.

## Courses

**ELE ED 2192 Educational Laboratory/Field Experience: 1-3 semester hours**

A laboratory/field experience requiring systematic observation and/or participation in appropriate educational settings. To precede student teaching. May be repeated to maximum of three hours.

**ELE ED 3330 Literacy, Literature And The Learner: 3 semester hours**

Prerequisites: Level I requirements. Exploration of literature and literacy-related resources available to teachers for children and young people. Emphasis on critical reading of literature for a variety of purposes, including communication, instruction, information, and recreation. Focus on the development of criteria for evaluating and selecting culturally and developmentally appropriate materials for motivating students to read in school and at home, as well as strategies for using literature to build family and school partnerships around reading. Twelve hours of participation in a school classroom setting are required. This course may be applied toward a Literacy Minor.

***ELE ED 3336 Communication Arts Learning And Instruction: 3 semester hours***

Prerequisites: Level I and Level II requirements. Analysis of the six communication arts (listening, speaking, viewing, visually representing, writing, and reading) across content areas. Attention on understanding children's home language and how children learn and develop communication skills. Special emphasis on strategies for assessing and teaching reading and writing, including workshop models, spelling, grammar, and grand conversations to meet the needs of every child. This course may be applied toward a Literacy Minor.

***ELE ED 3337 Teaching and Learning Literacy in the Elementary Classroom: 4 semester hours***

Prerequisite: Level I. The course, emphasizing literacy development, literacy instruction and children's literature, is the first in a sequence of two courses on teaching reading and writing. The purposes of this course are to survey literacy and literacy development as social practices, to focus on methods of teaching reading and writing, and to utilize children's literature within classroom practice. Instructional practices explored will include reading and writing workshops, guided reading, word work and phonics alongside matching texts (print and digital) and readers. Assessment strategies that inform these instructional practices will be introduced. Particular attention will be given to learning to teach literacy within diverse contexts and with multicultural groups of students.

***ELE ED 3338 Literacy Assessment and Learning: 3 semester hours***

Prerequisites: Level II and ELE ED 3337. The purposes of this course are to address issues of the differences and difficulties that may occur in literacy processes, evaluation of students' literacy skills, analysis of texts for their use by readers, and to design classroom literacy engagements that utilize a variety of instructional strategies and materials. Assessment practices explored will include running records, qualitative reading inventories, spelling inventories and writing assessment. Teacher candidates will learn to assess and create literacy instruction that is multicultural and integrates global technologies.

***ELE ED 3389 Classroom Based Assessment To Guide Literacy Instruction: 3 semester hours***

Prerequisites: TCH ED 3315 or TCH ED 4391 or equivalent reading methods course. Analysis of strategies for differentiating instruction for a range of readers and writers across content areas. Focus on cultural and language considerations in the assessment of students' literacy skills. Emphasis on meeting the needs of individual readers and writers in the context of whole class instruction. This course may be applied toward a Literacy Minor.

***ELE ED 4246 Teaching Mathematics In The Elementary School: 3 semester hours***

Prerequisite: Junior standing and completion of mathematics requirements in General Education. Organization and implementation of a modern elementary school mathematics program. If taken concurrently with internship, field hours will be combined within the internship experience. If this course is taken separately, then K-6 based field experiences are required in addition to scheduled course time.

***ELE ED 4253 Teaching Of Social Studies In The Elementary School: 3 semester hours***

Prerequisite: Junior standing and completion of social science requirements in general education. Study of elementary school social studies emphasizing the current social studies curricular content, methods of teaching and instructional materials. If taken concurrently with internship, field hours will be combined within the internship experience. If this course is taken separately, the K-6 based field experiences are required in addition to scheduled course time.

***ELE ED 4320 Classroom Management: 3 semester hours***

Same as ECH ED 4320, SEC ED 4320. Prerequisites: Level I and II courses or consent of instructor. Understanding classroom management as the development of engaging instruction that establishes healthy and culturally appropriate teacher-student relationships, builds successful classroom community and enhances student learning. Participants develop a culturally relevant classroom management plan that includes rules, procedures, expected behaviors and uses problem solving strategies to resolve behavior problems. Emphasis is on the teacher developing the social competence of Pre K-12 students within culturally diverse classrooms and engaging families in supportive interactions.

***ELE ED 4341 Teaching Science In The Elementary School: 3 semester hours***

Prerequisites: Level I and Level II requirements. An analysis of teaching science to K-6 students with emphasis on current science education trends, science curricular materials, and strategies of instruction. If taken concurrently with internship, field hours will be combined within the internship experience. If this course is taken separately, then K-6 based field experiences are required in addition to scheduled course time.

***ELE ED 4342 Addressing Needs In Mathematics Teaching And Learning: 3 semester hours***

Prerequisite: ELE ED 4246. Instructional strategies for analyzing and addressing needs of students who have difficulties understanding and becoming proficient in mathematics. Conceptual development and procedural fluency are approached in a diagnostic and prescriptive context. Course requires that students participate in K-12 classrooms for a minimum of 10 hours, in addition to university class schedule.

***ELE ED 4989 Practicum I: Elementary/Special Education Site Based Experience: 3 semester hours***

Prerequisites: Level I and Level II requirements. This course is an intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to impacting students achievement for diverse populations and differentiated instruction. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Practicum I is taken in the semester immediately preceding Practicum II. Not available for graduate credit.

***ELE ED 4990 Practicum II: Elementary/Special Education Site Based Experience: 12 semester hours***

Prerequisites: Grade of C or higher in ELE ED 4989 and admission to Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms implement inclusion (combined general education and special education) and/or have pull-out resource room settings and may also have self-contained settings where students with complex disabilities are educated exclusively. Not available for graduate credit.

***ELE ED 4991 Elementary School Student Teaching II: 6 semester hours***

Prerequisite: Completion of Level III courses Clinical teaching experience in elementary school classrooms under university and school supervision. Required for all majors in elementary education. Not available for graduate credit.

***ELE ED 4992 Practicum I: Elementary/Special Education/TESOL Site Based Experience: 3 semester hours***

Prerequisites: Completion of Level I and Level II requirements. This course is an intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to differentiated instruction and impacting student achievement for diverse populations. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Practicum I is taken in the semester immediately preceding Practicum II. Not available for graduate credit.

***ELE ED 4993 Practicum II: Elementary/Special Education/TESOL Site Based Experience: 12 semester hours***

Prerequisites: Grade of C or higher in Practicum I and admission to the Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms have ESOL and implement inclusion (combined general education and special education), and/or have pull-out resource room settings and may also have self-contained settings where students with complex disabilities are educated exclusively. Not for graduate credit.

***ELE ED 4994 Practicum I: Elementary/TESOL Site Based Experience: 3 semester hours***

Prerequisites: Completion of Level I and Level II requirements. This course is an intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to differentiated instruction and impacting student achievement for diverse populations. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Practicum I is taken in the semester immediately preceding Practicum II. Not available for graduate credit.

***ELE ED 4995 Practicum II: Elementary/TESOL Site Based Experience: 12 semester hours***

Prerequisites: Grade of C or higher in Practicum I and admission to the Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms include ESOL. Not for graduate credit.

***ELE ED 5989 Practicum I: Elementary/Special Education Site Based Experience: 2 semester hours***

Prerequisites: Graduate standing and Level I & II requirements. An intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to impacting students' achievement for diverse populations and differentiated instruction. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Activities to acquire research skills are included. Practicum I is taken in the semester immediately preceding Practicum II.

***ELE ED 5990 Practicum II: Elementary/Special Education Site Based Experience: 8 semester hours***

Prerequisites: Grade of B- or higher in ELE ED 5989 and admission to Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms implement inclusion (combined general education and special education) and/or have pull-out resource room settings and may also have self-contained settings where students with complex disabilities are education exclusively. Teacher candidates collect data for a research project.

***ELE ED 5992 Practicum I: Elementary/Special Education/TESOL Site Based Experience: 2 semester hours***

Prerequisites: Completion of Level I and Level II requirements. An intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to differentiated instruction and impacting student achievement for diverse populations. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Activities to acquire research skills are included. Practicum I is taken in the semester immediately preceding Practicum II.

***ELE ED 5993 Practicum II: Elementary/Special Education/TESOL Site Based Experience: 8 semester hours***

Prerequisites: Grade of B- or higher in Practicum I and admission to the Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms have ESOL and implement inclusion (combined general education and special education), and/or have pull-out resource room settings and may also have self-contained settings where students with complex disabilities are education exclusively. Teacher candidates collect data for a research project.

***ELE ED 5994 Practicum I: Elementary/TESOL Site Based Experience: 2 semester hours***

Prerequisites: Completion of Level I and Level II requirements. An intensive professional development experience (2 days per week) working in K-12 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to differentiated instruction and impacting student achievement for diverse populations. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Activities to acquire research skills are included. Practicum I is taken in the semester immediately preceding Practicum II.

***ELE ED 5995 Practicum II: Elementary/TESOL Site Based Experience: 8 semester hours***

Prerequisites: Grade of B- or higher in Practicum I and admission to the Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in K-12 school settings. These sites offer settings where classrooms include ESOL. Teacher candidates collect data for a research project.

***ELE ED 6387 Literacy Acquisition And Learning For Diverse Students: 3 semester hours***

Prerequisite: Graduate Standing. Designed to extend teacher understanding of children's literacy acquisition, development, and learning through the elementary grades. Emphasis on development of a teaching philosophy and skills which include maintaining effective literacy learning environments in diverse classrooms, fostering culturally responsive classroom communities, understanding social and environmental issues that affect the literacy learning of diverse learners, using effective methods and materials to develop engaged and literate students, and fostering children's participation in literacy activities.

***ELE ED 6410 Current Research In Early Childhood And Elementary Programs: 3 semester hours***

Prerequisites: Graduate Admission A systematic examination of research related to early childhood and elementary school programs. Student will be expected to become effective consumers of educational research and to utilize appropriate research findings in their decision-making processes when planning instruction.

***ELE ED 6411 Curriculum Leadership Elementary Programs: 3 semester hours***

Prerequisite: ED PSY 6030. Learn strategies for development and implementation of up-to date curriculum. Using current research of innovative programs and new approaches, students will develop skills in analyzing and evaluating content area curriculum according to Common Core and national content standards in order to lead curriculum development in an educational setting.

***ELE ED 6422 Curriculum Design of Elementary Programs: 3 semester hours***

Prerequisites: ED PSY 6030, ELE ED 6411 or consent of instructor. A study of current and classic curricular design models of elementary education. Students will select a grade level or subject area curriculum and develop an integrated or differentiated curriculum based on the Common Core and national content standards. Compare and contrast curriculum design approaches while connecting curriculum and instructional practices to student performance.

***ELE ED 6423 Learning Through Inquiry: 3 semester hours***

Prerequisites: ED PSY 6030 or consent of instructor. Students will learn to improve their instruction through using various inquiry models of teaching which develop the thinking skills required by the Common Core standards. Prior instructional experience is recommended.

***ELE ED 6426 Elementary School Curriculum Reform In The Earth/Space Sciences: 1-4 semester hours***

Prerequisites: Graduate standing. Field-based experiences in improving the district-level elementary school science program, with special attention to the earth/space sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. To reflect the number of modules selected by the student, this course may be repeated for a maximum of 4 credit hours.

***ELE ED 6428 Elementary School Curriculum Reform In The Life Sciences: 1-4 semester hours***

Prerequisite: Graduate Standing. Field-based experiences in improving the district-level elementary school science program, with special attention to the life sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. This course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. The course may be repeated for maximum of 4 credit hours.

***ELE ED 6429 Elementary School Curriculum Reform In The Physical Sciences: 1-4 semester hours***

Prerequisite: Graduate standing Field-based experiences in improving the district-level elementary school science program, with special attention to the physical sciences. Emphasis is given to planning and implementing standards-based inquiry science activities that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. The course may be repeated for a maximum of 4 credit hours.

***ELE ED 6436 Children's Literature I: Survey And Analysis: 3 semester hours***

Prerequisite: ELE ED 3330 or equivalent. A survey of children's literature published in the last ten years. Special emphasis will be placed on the relationship between children's literature and contemporary issues of society. Students will experience the materials themselves rather than reading about books. In addition, students will begin to study the literary elements that make literature interesting and meaningful for children.

***ELE ED 6441 Problems And Research In Teaching Elementary School Science: 3 semester hours***

Prerequisite: Eight hours of science, ELE ED 6441, ED PSY 6111. A thorough examination of research related to elementary school science instruction with particular emphasis on innovative programs. Includes methods of investigation and techniques for interpreting the professional literature.

***ELE ED 6445 Problems Of Teaching Mathematics In The Elementary School: 3 semester hours***

A study of the mathematics program in the elementary school from the viewpoint of goals, content, techniques, and evaluation.

***ELE ED 6447 Problems And Research In Teaching Elementary School Mathematics: 3 semester hours***

Prerequisite: ELE ED 6445. A thorough examination of research related to recurrent problems in elementary school mathematics instruction, as well as current problems arising within modern programs. Includes methodology appropriate to investigation of such problems and techniques for assessment of the literature.

***ELE ED 6448 Diagnosis And Remediation Of Disabilities In Learning Mathematics: 3 semester hours***

Prerequisite: ELE ED 6445. Causes of mathematical disabilities. Materials and techniques for diagnoses and corrective programs for children and youth.

***ELE ED 6450 Problems Of Teaching Social Studies In The Elementary School: 3 semester hours***

A classroom-oriented study of curricular and instructional problems encountered in social studies. Emphasis is placed upon development of materials, techniques, and resources.



***ELE ED 6482 Problems And Research In Teaching Elementary School: 3 semester hours***

This is the capstone course for the Master of Elementary Education-Emphasis in Reading. To be taken in the last 9 hours of Masters Program. The three foci for this course are (1) systematic study of research as it focuses on the problems of teaching reading in the elementary school, (2) innovations in the field, and (3) action research. Each student designs and completes an action research project related to literacy.

***ELE ED 6490 Internship: 1-10 semester hours***

Prerequisite: Consent Of Instructor. Closely Supervised Experience In A Field Setting Under The Direction Of A Graduate Faculty Member. An Appropriate Level Of Competence And Evidence Of Growth In The Professional Role Must Be Demonstrated By The Intern. The Internship Will Include Planning, Research, Evaluation, And Related Professional Activities.

***ELE ED 6493 Reading Specialist Practicum I: 3 semester hours***

Prerequisites: ELE ED 6684, ELE ED 6686, and ED REM 6707, ED REM 6709, or ED REM 6716. Application of reading theory and research in a supervised setting. Emphasis on assessing and analyzing the literacy strengths, needs, and interests of a range of readers with the goal of improving their reading abilities and attitudes. Focus is on establishing reading support for children with the assistance of formal and informal assessments, reading professionals, educators, and children's families.

***ELE ED 6494 Reading Specialist Practicum II: 3 semester hours***

Prerequisite: ELE ED 6493 Application of reading theory and research in a supervised setting. Emphasis on using appropriate materials and providing effective instructional techniques to address children's assessed literacy strengths, needs, and interests with the goal of improving their reading abilities and attitudes. Focus is on sustaining reading support for children with the assistance of other reading professionals, educators, and children's families.

***ELE ED 6495 Supervision Of Practicum In Clinical Reading: 3 semester hours***

Prerequisites: ELE ED 6486, ELE ED 6494, ED REM 6716 or consent of instructor Supervising graduate students in diagnosis and remedial process within the reading clinic.

***ELE ED 6497 Problems: 1-10 semester hours***

Selected problems to meet the needs of individual students.

***ELE ED 6684 Instructional Strategies For Teaching Reading: 3 semester hours***

Prerequisites: Graduate standing. Designed to extend teacher knowledge of effective instructional strategies for teaching reading. Emphasis on development of a teaching philosophy which acknowledges children gain considerable knowledge about reading from their families and communities, long before they encounter formal reading instruction. Focus on fostering culturally responsive classrooms using children's prior experiences, their language systems, cross-cultural literature, authentic texts, and other print materials familiar to children's home environments, as well as on teaching effective strategies to promote children's reading success.

***ELE ED 6686 Analysis And Correction Of Reading Disabilities: 3 semester hours***

Prerequisites: ED REM 6707, ED REM 6709, or ED REM 6716 and at least one graduate level literacy course. Designed to develop teacher understanding of the roles and responsibilities of the teacher of reading, Reading Specialist, and Literary Coach. Emphasis on the nature of specific reading difficulties, distinguishing reading difficulty/ disability from language difference, becoming familiar with a range of tools for assessing reading skills and strategies, and developing a critical orientation for evaluating the purpose and utility of various literacy assessment tools. Teachers will use informal and formal literacy assessment tools to guide instructional planning for children in the UMSL Reading Center.

***ELE ED 6688 Literacy Assessment To Guide Instruction: 3 semester hours***

Prerequisites: ED REM 6707, ED REM 6709, or ED REM 6716 and ELE ED 6686 Designed to apply teacher knowledge of the roles and responsibilities of the teacher of reading, Reading Specialist and Literary Coach. Emphasis on using literacy assessment tools and techniques to guide instruction for a range of children, especially in the areas of writing, comprehension, and vocabulary. Teachers will use informal and formal literacy assessment tools to guide instructional planning for children in the UMSL Reading Center.

## English

### Courses

***ENGL 1100 First-Year Writing: 3 semester hours***

Integrates critical reading, writing, and thinking skills and studies actual writing practices. Sequenced reading and writing assignments build cumulatively to more complex assignments. Includes formal and informal writing, drafting and revising, editing for correctness, synthesizing source material, and documenting sources accurately. Fulfills 3 hours of the General Education requirement for Communicating Skills. Does not count toward the major in English.

***ENGL 1110 First-Year Writing For International Students: 3 semester hours***

Prerequisite: Essay proficiency test or a TOFEL score off 500 or above. Designed for any student whose first language is not English. Integrates critical reading, writing, and thinking skills and studies actual writing practices. Sequenced reading and writing assignments build cumulatively to more complex assignments. Includes formal and informal writing, drafting and revising, editing for correctness, synthesizing source material, and documenting sources accurately. Special attention given to verb tenses, idioms, articles, and syntax. Does not count toward the major in English. Substitutes for ENGL 1100 in all university requirements.

***ENGL 1120 Introduction to Literature: 3 semester hours***

The student is introduced to the various literary types, including poetry, drama, fiction, and the essay.

***ENGL 1170 American Literary Masterpieces: 3 semester hours***

An introduction to major authors, works, and themes in American Literature from the nineteenth century to the present.

***ENGL 1710 Native American Literature: 3 semester hours***

Same as ANTHRO 1710. The course surveys the literature of American Indians from its oral tradition of myth, legend, song and oratory through its modern forms. The course satisfies the ethnic literature requirement for Missouri state certification in secondary education and the College of Arts and Sciences non-Euro-American study requirement.

**ENGL 1950 Topics In Literature: 3 semester hours**

This course will introduce the student to selected literary topics and/or genres. Each semester the department will announce topics and course content. Topics such as alienation, justice, and the absurd, and genres such as science fiction and contemporary drama are typical possibilities.

**ENGL 2040 Beginning Fiction Writing: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent. An introduction to the writing of fiction and an exploration of contemporary short stories as models for the writer. Students who have taken English 2060 may not take ENGL 2040 for credit. The course counts toward the Certificate in Writing.

**ENGL 2080 Advertising Copywriting: 3 semester hours**

Same as MEDIA ST 2080. To give students a hands-on approach for writing advertising material for print and broadcast against tight deadlines in a professional setting.

**ENGL 2120 Topics In Writing: 3 semester hours**

Prerequisite: ENGL 1100 or ENGL 1110. This course will introduce the student to writing in specific areas. The department will announce topics and course content in the schedule. Possible topics are argumentation, reading and writing about public affairs, sports reporting and writing, and writing about science. A student may repeat the course once when topics are different. The course counts toward the certificate in writing.

**ENGL 2240 Literature Of The Old Testament: 3 semester hours**

A comprehensive understanding of the Old Testament, its literary background and significance for western civilization.

**ENGL 2250 Literature Of The New Testament: 3 semester hours**

A comprehensive understanding of the New Testament, its literary background and significance for western civilization.

**ENGL 2280 Contemporary World Literature: 3 semester hours**

Selected World Literature from the 20th and 21st centuries with emphasis on non-European literatures. This course may include works from Europe, Latin American, the Middle East, Africa, and Asia; it excludes literature from the United States and England. It satisfies the cultural diversity requirement of UMMSL.

**ENGL 2310 English Literature Before 1790: 3 semester hours**

The development of English literature from the Middle Ages through the eighteenth century. Introduces students to major literary movements and themes through the reading and analysis of representative works of selected major authors.

**ENGL 2320 English Literature After 1790: 3 semester hours**

The development of English Literature from the beginning of the nineteenth century. Introduces students to major literary movements and themes through the reading and analysis of representative works of selected major authors.

**ENGL 2330 Introduction To Poetry: 3 semester hours**

A close study of poems, with special emphasis on the varieties of poetic form, and the means of interpretation and evaluation.

**ENGL 2340 Introduction To Drama: 3 semester hours**

A close study of major dramatic works in various modes, to introduce the student to the forms and techniques of dramatic literature.

**ENGL 2510 World Literature Before 1650: 3 semester hours**

Prerequisite: ENGL 1100. A survey of World Literature from the earliest times to 1650. Diverse literary works in a variety of genres and voices will be studied. This course excludes literature from the United States and England. To satisfy the cultural diversity requirement of UMMSL, the course will include literary works from diverse traditions from throughout the world.

**ENGL 2520 World Literature After 1650: 3 semester hours**

Prerequisites: ENGL 1100. A survey of World Literature from 1650 to the present. Diverse literary works in a variety of genres and voices will be studied. This course excludes literature from the United States and England. To satisfy the cultural diversity requirement of UMMSL, the course will include literary works from diverse traditions from throughout the world.

**ENGL 2710 American Literature Before 1865: 3 semester hours**

Representative selections from American authors from the early seventeenth century to the Civil War.

**ENGL 2720 American Literature After 1865: 3 semester hours**

Representative selections from American authors from the Civil War to the present.

**ENGL 2810 Traditional Grammar: 3 semester hours**

An introduction to the terms and concepts of traditional grammar, beginning with functions of the noun and forms of the verb in simple sentences, moving to more complex structures such as subordinate clauses and verbal phrases, and ending with the application of this material to issues of Standard English.

**ENGL 3030 Poetry Writing Workshop: 3 semester hours**

Prerequisite: ENGL 1100 or the equivalent or consent of instructor. Workshop in poetry writing that may also focus on close reading of published works and poetic forms. May be repeated once for a total of 6 credit hours. Counts toward the Certificate in Creative Writing, and if taken twice, the second time counts toward the Emphasis in Creative Writing for English majors.

**ENGL 3040 Fiction Writing Workshop: Narrative Techniques: 3 semester hours**

Prerequisite: ENGL 2040 or ENGL 2060 or the equivalent or consent of instructor. Workshop in fiction writing. The course counts toward the Certificate in Writing.

**ENGL 3090 Writing about Literature: 3 semester hours**

Prerequisites: ENGL 1100 Or Equivalent (3-6 credit hours) and 56 credit hours. Acquaints students with the basic methods of literary criticism and trains them in explicating particular texts and writing about literature. Introduces students to basic research and proper MLA documentation. Required of all English majors. Does not count toward the major in English. May not be taken on satisfactory/unsatisfactory option. Counts toward the Certificate in Writing.

**ENGL 3100 Junior-Level Writing: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent (3-6 credit hours) and 56 credit hours. Focuses on writing and literacies in various contexts. Builds on intellectual maturity, knowledge, and abilities gained through prior university studies. Enhances analytical, communicative, persuasive, and explanatory capabilities. Includes complex readings and research. Fulfills the university's requirement for a junior-level course in Communicative Skills. Counts toward the Certificate in Writing. May not be taken on a satisfactory/unsatisfactory basis.

**ENGL 3110 Junior Level Writing For International Students: 3 semester hours**

Prerequisites: ENGL 1110 or equivalent (3-6 credit hours) and 56 credit hours. Designed for any student whose first language is not English. Builds on intellectual maturity, knowledge, and abilities gained through prior university studies. Enhances analytical, communicative, persuasive, and explanatory capabilities in contemporary American English. Includes formal research and documentation methods from a variety of fields. Emphasizes students' reading abilities, both comprehension and vocabulary. Fulfills the university's requirement for a junior-level course in Communicative Skills. Counts toward the Certificate in Writing. May not be taken on a satisfactory/unsatisfactory basis.

**ENGL 3120 Business Writing: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent (3-6 hours) and junior standing. This course further develops the experienced writer's style and analytical capabilities to the level of sophistication necessary for upper-division writing assignments and for business and professional settings. Writing assignments may include business correspondence, reports, resumes, proposals, analyses, feasibility studies, and articles for in-house publications. The course emphasizes clarity, conciseness, organization, format, style, tone and mechanical correctness; expands upon students' research and documentation skills; and requires research in university libraries. Fulfills the University's requirement for a junior-level course in communicative skills. It may not be taken on a satisfactory/unsatisfactory basis.

**ENGL 3130 Technical Writing: 3 semester hours**

Prerequisite: ENGL 1100 or equivalent (3-6 hours) and junior standing. The major elements of industrial technical writing. Writing assignments include technical definitions, abstracts and summaries, mechanism descriptions, instructions, process analyses, technical reports and proposals. Emphasis is placed on clarity, conciseness, organization, format, style and tone. The course includes an introduction to research methods and documentation. All readings are selected from industrial material. Fulfills the University requirement for junior-level course in communicative skills, subject to the approval of the student's major department. May not be taken on the satisfactory/unsatisfactory option.

**ENGL 3140 News Writing: 3 semester hours**

Same as MEDIA ST 3214. Prerequisite: ENGL 1100 or equivalent. An introduction to news writing and reporting. Course covers basic components of news, reporting principles, and news writing style and structure. Daily writing assignments include coverage of speeches, meetings and interviews, accidents, deaths, courts, sports, consumer affairs and government. Emphasis on clarity, accuracy and speed. The course counts toward the Certificate in Writing.

**ENGL 3150 Feature Writing: 3 semester hours**

Same as MEDIA ST 3150. Prerequisite: ENGL 1100 or equivalent. Study of freelance and staff-written magazine or newspaper feature articles. Emphasis on relationship between types of publication and article content, research methods, and writing style. Frequent short assignments -- journal entries, interviews, library projects, article critiques, and market reports -- lead to production of full-length feature articles. May not be taken on the S/U option. The course counts toward the Certificate in Writing.

**ENGL 3160 Writing In The Sciences: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent (3-6 hours) and junior standing. Designed to teach students how to write effectively in the sciences. Writing assignments include short reports, proposals and a major project. Students are encouraged to select projects that will reflect work in a science course which may include a research or analytical report, a formal proposal or a procedures/instructions manual. Emphasis is placed on clarity, conciseness, organization, format, style, and tone. The course will include an introduction to research methods and documentation. Fulfills the University requirement for a junior-level course in communicative skills, subject to the approval of the student's major department. May not be taken on the satisfactory/unsatisfactory option.

**ENGL 3180 Reporting: 3 semester hours**

Same as MEDIA ST 3180. Prerequisite: ENGL 3140 or equivalent. Theory and practice of reporting news for publication in the print media. Includes one classroom session and one field assignment weekly. Stories must be filed within deadline limits. Writing emphasis is on clarity, conciseness, and accuracy. The course counts toward the certificate in writing.

**ENGL 3280 Public Relations Writing: 3 semester hours**

Prerequisite: ENGL 3100 or equivalent. An introduction to the process of planning, producing, and evaluating written public relations messages. Writing assignments include media releases, letters, memos, position papers, background papers, brochures, and reports and proposals.

**ENGL 3500 Special Studies: 1-3 semester hours**

Prerequisite: A course in area of proposed work and consent of instructor. Individual work, with conferences adjusted to needs of the student. May not be used to meet specific English department distribution and language requirements. May be repeated for a maximum total of four hours credit.

**ENGL 3800 Topics In Women And Literature: 3 semester hours**

An examination of the role of women in literature, either as figures in literary works or as writers. Specific topics to vary from semester to semester. Since the topics of ENGL 3800 may change each semester, the course may be repeated for credit if the topics are substantially different.

**ENGL 4020 Writing Literary Criticism: 3 semester hours**

Prerequisite: ENGL 3100 or equivalent as judged by the instructor. Intensive training in the writing of literary criticism, with some attention to the bibliography and to methods of research in literature. Recommended for all English majors.

**ENGL 4030 Contemporary Critical Theory: 3 semester hours**

This course is to acquaint students with a range of critical methodologies that have gained currency since the 1960's; topics may include formalist, structuralist, post-structuralist, Marxist, reader-response, psychoanalytic, feminist, cognitive, and evolutionary approaches to literature and culture.

**ENGL 4060 Adolescent Literature: 3 semester hours**

The course will expose students to the large variety of quality adolescent literature available for reading and study in middle and high school classes. It will also examine the relevance of a variety of issues to the reading and teaching of adolescent literature, among them: reader response; theory and practice; multi-culturalism; literacy; the relation of adolescent literature to "classic" literature the role of adolescent literature in interdisciplinary studies; adolescent literature as an incentive to extracurricular reading.

**ENGL 4080 Narrative, Cognition, And Emotion: 3 semester hours**

Prerequisites: ENGL 2320; ENGL 3090, prerequisite or co-requisite  
Examines narrative theory in the light of recent research into cognitive organization and the structure of the emotions. Traditional and contemporary theories of narrative--or realism, symbolism, point of view, tone, and genre--are developed through recent findings in empirical science. A variety of stories and novels are used as test cases for theoretical propositions.

**ENGL 4130 Advanced Poetry Writing Workshop: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent; ENGL 2030 or ENGL 3030 or consent of instructor. Advanced workshop in poetry writing. The course counts toward the Certificate in Writing.

**ENGL 4140 Advanced Fiction Writing Workshop: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent; ENGL 2040 or equivalent or consent of instructor. Advanced workshop in fiction writing. The course counts toward the certificate in Writing.

**ENGL 4160 Special Topics In Writing: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent. Special topics in writing that are not covered in other 4000level English courses. Since the topics of ENGL 4160 may change each semester, the course may be repeated for credit if the topics are substantially different.

**ENGL 4250 Old English Literature: 3 semester hours**

Prerequisites: ENGL 3100; or, for majors, ENGL 3090 prerequisite or corequisite and ENGL 2310 prerequisite or permission of instructor An introduction to the literary culture of Anglo-Saxon England through study of the Old English language and close reading of a diverse group of Old English texts from the eighth to eleventh centuries.

**ENGL 4260 Chaucer: 3 semester hours**

The course concentrates on the poetry of Geoffrey Chaucer, including the Canterbury Tales, early poetic works, and the Troilus and Criseyde. All readings are in the original Middle English.

**ENGL 4270 Medieval English Literature: 3 semester hours**

A survey of old and middle English literature from Beowulf to Malory's Morte d'Arthur, exclusive of Chaucer. All works are read in modern English translations.

**ENGL 4320 Sixteenth-Century Poetry and Prose: 3 semester hours**

A broad selection of writers from the late 15th century through 1603, including Thomas More, the Sidneys, Spenser, and Shakespeare's sonnets.

**ENGL 4340 Early Seventeenth Century Poetry And Prose: 3 semester hours**

A broad selection of writers from 1603 through 1675, exclusive of Milton, including Bacon, Donne, Jonson, and Lanyer.

**ENGL 4350 Milton: 3 semester hours**

All the minor poems and the three longer poems with some attention to the major prose, Milton and his relation to the politics, theology and literature of the seventeenth century.

**ENGL 4360 Tudor And Stuart Drama: 3 semester hours**

A survey of the dramatic writings of the period from the interludes of John Heywood to the closing of the theatres in 1642, with particular attention to the plays of Marlowe, Jonson, Webster and Ford. Though Shakespeare will not be studied in this course; connections between his works and those of his contemporaries will be discussed.

**ENGL 4370 Shakespeare: Tragedies And Romances: 3 semester hours**

A study of the structure and language of Shakespeare's tragedies and romances, with particular attention to their genre as well as their relation to the cultural issues of Shakespeare's time. Shakespeare's narrative poems may also be included.

**ENGL 4380 Shakespeare: Comedies And Histories: 3 semester hours**

A study of the structure and language of Shakespeare's comedies and histories, with particular attention to their genre as well as their relation to the culture issues of Shakespeare's time. Shakespeare's sonnets may also be included.

**ENGL 4420 Age Of Dryden And Pope: 3 semester hours**

The beginnings of English neo-classic literature in the Restoration and its development through the first half of the eighteenth century, focusing on Dryden, Swift and Pope.

**ENGL 4450 The Eighteenth-Century English Novel: 3 semester hours**

The origins and early development of the English novel, from Defoe to Jane Austen.

**ENGL 4520 Romantic Poetry and Prose: 3 semester hours**

A broad selection of poetry and prose from the English Romantic movement. Primary focus on Blake, Wordsworth, Coleridge, Byron, Keats, and Shelley. Additional authors may include Mary Wollstonecraft, Robert Burns, Thomas De Quincey, Mary Shelley, John Clare, Felicia Hemans, Ottobah Cugoano, Olaudah Equiano, and others.

**ENGL 4540 The Nineteenth-Century English Novel: 3 semester hours**

Novels of the Romantic and Victorian periods, from Austen to George Eliot.

**ENGL 4550 Novels into Films: The Nineteenth Century: 3 semester hours**

Prerequisites: ENGL 2320, ENGL 3090. Novels by Austen, Eliot, Wilde, Hardy, and others read in themselves and as interpreted in film. Comparisons of the representational and aesthetic techniques available to novels and film.

**ENGL 4560 Prose And Poetry Of The Victorian Period: 3 semester hours**

Critical readings of selections from Tennyson, Browning, Arnold and others, in addition to selections from the major prose writing.

**ENGL 4580 Literature Of The Late Nineteenth And Early Twentieth Centuries: 3 semester hours**

Literature of the period between 1870 and the First World War, including works by writers such as Hardy, Conrad, James, Wilde, Stevenson, Shaw, Jefferies, and Wells.

**ENGL 4610 Selected Major American Writers I: 3 semester hours**

American literature of the nineteenth century: Emerson, Thoreau, Hawthorne, Melville, Whitman and others.

**ENGL 4620 Selected Major American Writers II: 3 semester hours**

American literature of the late nineteenth and early twentieth centuries: Dickinson, James, Twain, Cather, Frost, Dreiser and others.

**ENGL 4640 American Fiction To World War I: 3 semester hours**

Development of the novel and short story in America.

**ENGL 4650 Modern American Fiction: 3 semester hours**

The novel and short story in America since World War I. There may be some attention to British and continental influences.

**ENGL 4740 Poetry Since World War II: 3 semester hours**

Reading and analysis of contemporary poetry.



**ENGL 4750 Modern British Fiction: 3 semester hours**

Critical reading and analysis of British fiction of the twentieth century. There may be some attention to American and continental influences.

**ENGL 4760 Modern Drama: 3 semester hours**

British, American and European drama of the last one hundred years: the well-made play, the problem play, verse drama, new definitions of tragedy, the angry theater, theater of the absurd.

**ENGL 4770 Modern Poetry: 3 semester hours**

Critical reading and analysis of poetry of the late nineteenth and early twentieth centuries. Yeats, Eliot, Frost, Williams and others.

**ENGL 4800 Linguistics: 3 semester hours**

Prerequisites: ENGL 3100; majors, ENGL 3090. A survey of linguistics with emphasis on what the field reveals about the English language. Topics include the sounds of language, grammar, writing systems, language acquisition, language in society, language history, dialects, and usage.

**ENGL 4810 English Grammar: 3 semester hours**

Prerequisites: ENGL 3100; majors, ENGL 3090; ENGL 2810 or passing grade on English-Education Test of Basic Grammar A study of modern English grammar from the perspectives of traditional, structural, and transformational grammar.

**ENGL 4820 History Of The English Language: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent A historical survey of the English language from its Indo-European roots through Old and Middle English to the present. Topics include changes in sound, meaning, and grammar, as well as developments in American English, including regional and social dialects.

**ENGL 4850 Topics In The Teaching Of Writing: 1-3 semester hours**

Same as TCH ED 5850. Prerequisites: ENGL 3100 or equivalent Special topics in the practice of and pedagogy of writing designed for in-service teachers. Topics may include writing at specific grade levels, writing/reading workshops, writing in urban settings, writing across the curriculum, action research, new technology, classroom and district-level assessment. May be repeated once for credit if topics differ. Counts toward Certificate in Writing.

**ENGL 4860 Editing: 3 semester hours**

Prerequisites: ENGL 3100 or its equivalent as judged by instructor; English ENGL 2810 or ENGL 4810. Introduction to the language and processes of editing. Includes copy editing, the study of style manuals, and an overview of the production process. Counts toward requirement for the Writing Certificate.

**ENGL 4880 Writing For Teachers: 3 semester hours**

Same as SEC ED 4880. Prerequisite: ENGL 3090 or junior level English. Writing for Teachers is an English-education course that supports writing across the curriculum for both pre-service English and content area teachers. Teacher candidates learn writing theories and literacy strategies to help their future students construct meaning from their discipline. The course works best for those who are completing level II or beginning level III education courses. The course counts toward the Certificate in Writing.

**ENGL 4890 Writing Internship: 3 semester hours**

Prerequisites: ENGL 3100 or its equivalent as judged by the instructor. Course limited to students who are completing certificates in writing. May be taken concurrently with the final course in the certificate sequence. Students work in a supervised internship to complete professional writing assignments. Special consent form required.

**ENGL 4892 Independent Writing Project: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent as judged by instructor. Course limited to students who are completing their certificates in writing. May be taken concurrently with the final course in the certificate sequence. Students work individually with an instructor to complete an extensive creative writing or critical analysis writing project. This course is available on a limited basis only with the approval of the Coordinator and faculty sponsor. Special consent form is required.

**ENGL 4895 Editing "Litmag": 3 semester hours**

Prerequisites: ENGL 3100 or equivalent and at least two creative writing courses. Course is primarily for students nearing the end of their certificates in writing. Students in this course create "Litmag", the UM-St. Louis student literary magazine. Students will call for submissions; they will read and select work to be published; and they will produce the magazine, dealing with issues like format, budget, proofreading, print run, advertising, distribution, and publicity. The course is offered only in the spring and culminates with the publication of "Litmag" in late April.

**ENGL 4920 Major Works Of European Fiction: 3 semester hours**

Prerequisites: 2 college courses in literature The development of the European novel in the 19th and 20th centuries. Representative of works of writers such as Balzac, Flaubert, Dostoevsky, Tolstoy, Kafka, and Proust, read in translation.

**ENGL 4925 The Short Story in World Literature: 3 semester hours**

Students will read a wide variety of short fiction, from very brief pieces to novellas, including stories from all over the world and from several different centuries either in translation or in the original English. The course will also cover short theoretical works on narrative and critical commentaries on some of the fiction.

**ENGL 4930 Studies In Gender And Literature: 3 semester hours**

Same as GS 4930. The course examines the role of gender in literature, including the transformation of literary genres by women writers, writings by women during a particular historical period, and gender relations in literature. Specific topics vary from semester to semester. The course may be repeated for credit with departmental approval.

**ENGL 4931 English Women Writers, 1300-1750: 3 semester hours**

Same as GS 4931. Works will be read ranging in scope from closest drama and romance to lyrics to personal, political, and religious writing by women, such as Margery Kempe, Mary Sidney, and Amelia Lanyer, who wrote during a period when reading and writing were not the female norm.

**ENGL 4932 Female Gothic: 3 semester hours**

Same as GS 4932. The course examines the historical development of the female gothic, a genre which employs narrative strategies for expressing fears and desires associated with female experience. From the late 18th century to the present, we will trace the persistence of the Gothic vision in fiction and film.

**ENGL 4934 Austen And The Brontes: 3 semester hours**

Same as GS 4934. This course covers the novels of the major 19th century British writers Jane Austen and the three Bronte sisters, Anne, Emily, and Charlotte. The course will be devoted to Austen's romantic comedies and the historical/cultural contexts that inform the novels, as well as the darker romanticism of the Brontes, along with the biographical, cultural, philosophical, and religious contexts of their work.

**ENGL 4936 Tales Of The Islamic East: 3 semester hours**

Same as GS 4936. Adventure, gender, and power in British and post-colonial writing: Lady Montague on Turkey, Gibbon on Islam, Byron and Hemans on harems and heroes, Disraeli on the Jewish Caliph of Bagdad, T.E. Lawrence on Arabia, and el Saadawi and Rushdie on (post)modern gender and the Islamic East.

**ENGL 4938 American Women Poets Of The 20Th/21St Centuries: 3 semester hours**

Same as GS 4938. Introduction to American women poets since 1900: anarchists, Imagists, Harlem formalists, white lyricists, modernists (Ridge, H.D., Dunbar-Nelson, Millary, Stein); mid-century giants (Rukeyser, Brooks) and Confessionals (Sexton, Plath); feminists and multiculturalists (Rich, Lorde, Giovanni, Hogan), poets of witness and the play of language and the mind (Klepfisz, Olds, Mullen, Perillo).

**ENGL 4950 Special Topics In Literature: 3 semester hours**

Special topics in literature that are not covered in other 4000-level English courses. Since the topics of ENGL 4950 may change each semester, the course may be repeated for credit if the topics are substantially different.

**ENGL 5000 Introduction To Graduate Study In English: 3 semester hours**

A course designed to prepare students for the professional study of English. The course will both familiarize students with basic bibliographic tools and scholarly methods and introduce them to issues that are of current critical interest to those engaged in the advanced study of literature. These issues include gender, textuality, reader-response, multiculturalism, feminism, psychoanalysis, cultural studies, literary history and the relationship of literature to philosophy, history, and science. Must be taken within the first twelve hours of graduate study.

**ENGL 5100 Graduate Workshop In Poetry: 3 semester hours**

Prerequisites: Open to students in the creative writing program and to others with permission of instructor. Consists of a writing workshop in which the poetry written by the students enrolled in the course is discussed and analyzed by the instructor and members of the class. Students taking this course will be expected to write original poetry throughout the course. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5110 Graduate Workshop In Fiction: 3 semester hours**

Prerequisites: Open to students in the creative writing program and to others with permission of instructor. Consists of a writing workshop in which the fiction (short stories or chapters of a novel) written by the students enrolled in the course is discussed and analyzed by the instructor and members of the class. Students taking this course will be expected to write original fiction throughout the course. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5130 Graduate Workshop In The Novel: 3 semester hours**

Prerequisites: Permission of instructor, based on submission of sample of novel manuscript. A writing workshop in which a novel written by the student is discussed and analyzed by the instructor and members of the class. Students must have a complete novel manuscript (50,000 words minimum) ready for discussion by the beginning of class. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5140 Graduate Workshop In Nonfiction: 3 semester hours**

Prerequisites: Open to students in the MFA program and to others with permission of instructor. A variable-topics writing workshop focusing on one or more of the following forms: personal essay, memoir, travel writing, literary journalism, biography, or other types of literary nonfiction. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5150 Magical Realism Workshop: 3 semester hours**

Prerequisites: Open to students in the MFA Program and other graduate students with consent of instructor. Half of this course will be a study of the classic texts of magical realism and the other half will be a fiction workshop in which the members of the class will write in this imaginative and symbolic genre. Non-MFA students will write a critical study of magical realism.

**ENGL 5170 Techniques, Methods, And Effects In Fiction Writing: 3 semester hours**

Prerequisite: Open to students in the MFA program and to others with consent of the instructor. This course analyzes the technical choices made by important contemporary fiction writers in the areas of point of view, tone, setting, form, and plot structure, and it examines the effects of those choices. Close consideration is given to fictional techniques that contribute to a story's characterization, tension, interest, reliability, drama, irony, and humor. The course is primarily for creative writers.

**ENGL 5180 Form And Theory Of Poetry: 3 semester hours**

Prerequisites: Open to students in the MFA Program and other graduate students with consent of instructor. This course explores various aspects of traditional and contemporary poetry. The student will gain an understanding of formal poetry-rhyme and meter-as well as of traditional types of poetry, for example, the lyric and the narrative. Throughout the course, an emphasis will be maintained on free verse and a greater understanding of its practice. Students will read selectively in the poetry, theory, and critical approaches of various periods, for example, the romantic and the modern, and within various movements, such as the symbolist or confessional.

**ENGL 5190 Literary Journal Editing: 3 semester hours**

Prerequisites: Open to students in the MFA program who have had at least two graduate writing workshops and to others with consent of the instructor. In this course students serve as the first readers of all submissions to the university's literary magazine, Natural Bridge. Students will read and evaluate poems, short stories, and essays and recommend a body of work to the editorial board of the magazine. The editorial board will then consider the class consensus in its final selection of material for publication. In addition to this primary task of editorial selection, students will also be involved in the productions of an issue of the magazine. May be repeated for maximum graduate credit of nine hours.

**ENGL 5200 MFA Readings: 3 semester hours**

Prerequisites: Open to students in the MFA program and to others with consent of the instructor. This is an independent reading course. In consultation with an MFA faculty member, students choose works from the MFA Reading List and read them with the goal of broadening and sharpening their technical skills as writers. Students ordinarily choose works in one genre: poetry, the short story, or the novel. Each week the student reads and reports on at least one work. The course may be taken only once.

**ENGL 5250 Studies In Middle English Literature: 3 semester hours**

Special topics in English literature before 1500.

**ENGL 5300 Renaissance Literature: 3 semester hours**

Special topics in English literature from 1500 to 1660.

**ENGL 5400 Eighteenth Century Literature: 3 semester hours**

Studies in Augustan poetry and prose, including drama and fiction, with emphasis on background and major figures.

**ENGL 5500 Nineteenth Century Literature: 3 semester hours**

Special topics in English romanticism, in Victorian life and thought, and in the development of the novel and of poetry between 1797 and 1914.

**ENGL 5600 American Literature Before 1900: 3 semester hours**

Selected American writers or topics from the colonial period to 1900.

**ENGL 5650 Critical Studies In African American Texts: 3 semester hours**

This course will examine the critical and literary work of African Americans and Afro-Caribbeans. It will focus on fiction, poetry, short stories and essays expressing the major cultural, literary and thematic concerns of African American writing in the latter part of the twentieth century. Students will become familiar with "movements" in African American literature such as protest literature, the Black Arts Movement, and/or the emergence of African American Women's writing, among others. Students will utilize current scholarship, theory, and criticism as a means to investigate and study primary texts in the course.

**ENGL 5700 Twentieth-Century American Literature: 3 semester hours**

Selected American writers or topics from 1900 to the present.

**ENGL 5750 Twentieth-Century British Literature: 3 semester hours**

Selected British and Commonwealth writers of the twentieth century.

**ENGL 5800 Modern Linguistics: 3 semester hours**

Prerequisite: None. A study of selected topics in the structure of the English language, combining readings in current linguistics publications with original research.

**ENGL 5840 Theories Of Writing: 3 semester hours**

An analysis of major modern theories in composition.

**ENGL 5850 Studies In Composition: 3 semester hours**

The study of special topics in composition. Topics may include history of composition, psychology of writing, reader response theory, etc.

**ENGL 5860 Writing/Reading Theory: 3 semester hours**

This course studies the parallel evolution of reading and writing theory and pedagogy. Topics include the influence of psycholinguistics and reader-response theory and the link between reading and writing theory and instruction.

**ENGL 5870 Composition Research: 3 semester hours**

This course equips students both to analyze and conduct research in composition. Coursework will teach students to evaluate methodologies and implications, to analyze data, and to design their own research projects.

**ENGL 5890 Teaching College Writing: 3 semester hours**

This course provides the opportunity for practical application of composition theory with an emphasis on improving teaching skills. Strongly recommended for graduate teaching assistants.

**ENGL 5920 Studies In Fiction: 3 semester hours**

Study of a few selected British and American novelists and short story writers.

**ENGL 5940 Seminar In Gender And Literature: 3 semester hours**

Same as GS 5940 Gender studies in literature of different periods, types, and genres; satisfies area requirement (1-6) appropriate to its period, national literature, and genre.

**ENGL 5950 Seminar In Special Topics: 1-3 semester hours**

Special topics which are not covered in other graduate-level English courses.

**ENGL 5970 Independent Reading: 1-3 semester hours**

Directed study in areas of English for which courses are not available.

**ENGL 6000 Thesis: 1-6 semester hours**

PREREQUISITE: 3.5 graduate GPA Thesis research and writing on a selected topic in English studies. May be taken over two semesters, three (3) hours each semester.

**ENGL 6880 Gateway Writing Project: 3-6 semester hours**

Same as TCH ED 6880. An intensive course in the writing process and the writing curriculum, designed for experienced teachers. Readings of current theory and research will be related to participants' experience as writers and as teachers. Topics may vary. May be repeated for credit. No more than 6 hours may be applied toward the M.Ed. Counts toward the Graduate Certificate in Teaching Writing.

**Courses****ENGL 1100 First-Year Writing: 3 semester hours**

Integrates critical reading, writing, and thinking skills and studies actual writing practices. Sequenced reading and writing assignments build cumulatively to more complex assignments. Includes formal and informal writing, drafting and revising, editing for correctness, synthesizing source material, and documenting sources accurately. Fulfills 3 hours of the General Education requirement for Communicating Skills. Does not count toward the major in English.

**ENGL 1110 First-Year Writing For International Students: 3 semester hours**

Prerequisite: Essay proficiency test or a TOFEL score off 500 or above. Designed for any student whose first language is not English. Integrates critical reading, writing, and thinking skills and studies actual writing practices. Sequenced reading and writing assignments build cumulatively to more complex assignments. Includes formal and informal writing, drafting and revising, editing for correctness, synthesizing source material, and documenting sources accurately. Special attention given to verb tenses, idioms, articles, and syntax. Does not count toward the major in English. Substitutes for ENGL 1100 in all university requirements.

**ENGL 1120 Introduction to Literature: 3 semester hours**

The student is introduced to the various literary types, including poetry, drama, fiction, and the essay.

**ENGL 1170 American Literary Masterpieces: 3 semester hours**

An introduction to major authors, works, and themes in American Literature from the nineteenth century to the present.

**ENGL 1710 Native American Literature: 3 semester hours**

Same as ANTHRO 1710. The course surveys the literature of American Indians from its oral tradition of myth, legend, song and oratory through its modern forms. The course satisfies the ethnic literature requirement for Missouri state certification in secondary education and the College of Arts and Sciences non-Euro-American study requirement.

**ENGL 1950 Topics In Literature: 3 semester hours**

This course will introduce the student to selected literary topics and/or genres. Each semester the department will announce topics and course content. Topics such as alienation, justice, and the absurd, and genres such as science fiction and contemporary drama are typical possibilities.

**ENGL 2040 Beginning Fiction Writing: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent. An introduction to the writing of fiction and an exploration of contemporary short stories as models for the writer. Students who have taken English 2060 may not take ENGL 2040 for credit. The course counts toward the Certificate in Writing.

**ENGL 2080 Advertising Copywriting: 3 semester hours**

Same as MEDIA ST 2080. To give students a hands-on approach for writing advertising material for print and broadcast against tight deadlines in a professional setting.



**ENGL 2120 Topics In Writing: 3 semester hours**

Prerequisite: ENGL 1100 or ENGL 1110. This course will introduce the student to writing in specific areas. The department will announce topics and course content in the schedule. Possible topics are argumentation, reading and writing about public affairs, sports reporting and writing, and writing about science. A student may repeat the course once when topics are different. The course counts toward the certificate in writing.

**ENGL 2240 Literature Of The Old Testament: 3 semester hours**

A comprehensive understanding of the Old Testament, its literary background and significance for western civilization.

**ENGL 2250 Literature Of The New Testament: 3 semester hours**

A comprehensive understanding of the New Testament, its literary background and significance for western civilization.

**ENGL 2280 Contemporary World Literature: 3 semester hours**

Selected World Literature from the 20th and 21st centuries with emphasis on non-European literatures. This course may include works from Europe, Latin American, the Middle East, Africa, and Asia; it excludes literature from the United States and England. It satisfies the cultural diversity requirement of UMSL.

**ENGL 2310 English Literature Before 1790: 3 semester hours**

The development of English literature from the Middle Ages through the eighteenth century. Introduces students to major literary movements and themes through the reading and analysis of representative works of selected major authors.

**ENGL 2320 English Literature After 1790: 3 semester hours**

The development of English Literature from the beginning of the nineteenth century. Introduces students to major literary movements and themes through the reading and analysis of representative works of selected major authors.

**ENGL 2330 Introduction To Poetry: 3 semester hours**

A close study of poems, with special emphasis on the varieties of poetic form, and the means of interpretation and evaluation.

**ENGL 2340 Introduction To Drama: 3 semester hours**

A close study of major dramatic works in various modes, to introduce the student to the forms and techniques of dramatic literature.

**ENGL 2510 World Literature Before 1650: 3 semester hours**

Prerequisite: ENGL 1100. A survey of World Literature from the earliest times to 1650. Diverse literary works in a variety genres and voices will be studied. This course excludes literature from the United States and England. To satisfy the cultural diversity requirement of UMSL, the course will include literary works from diverse traditions from throughout the world.

**ENGL 2520 World Literature After 1650: 3 semester hours**

Prerequisites: ENGL 1100. A survey of World Literature from 1650 to the present. Diverse literary works in a variety genres and voices will be studied. This course excludes literature from the United States and England. To satisfy the cultural diversity requirement of UMSL, the course will include literary works from diverse traditions from throughout the world.

**ENGL 2710 American Literature Before 1865: 3 semester hours**

Representative selections from American authors from the early seventeenth century to the Civil War.

**ENGL 2720 American Literature After 1865: 3 semester hours**

Representative selections from American authors from the Civil War to the present.

**ENGL 2810 Traditional Grammar: 3 semester hours**

An introduction to the terms and concepts of traditional grammar, beginning with functions of the noun and forms of the verb in simple sentences, moving to more complex structures such as subordinate clauses and verbal phrases, and ending with the application of this material to issues of Standard English.

**ENGL 3030 Poetry Writing Workshop: 3 semester hours**

Prerequisite: ENGL 1100 or the equivalent or consent of instructor. Workshop in poetry writing that may also focus on close reading of published works and poetic forms. May be repeated once for a total of 6 credit hours. Counts toward the Certificate in Creative Writing, and if taken twice, the second time counts toward the Emphasis in Creative Writing for English majors.

**ENGL 3040 Fiction Writing Workshop: Narrative Techniques: 3 semester hours**

Prerequisite: ENGL 2040 or ENGL 2060 or the equivalent or consent of instructor. Workshop in fiction writing. The course counts toward the Certificate in Writing.

**ENGL 3090 Writing about Literature: 3 semester hours**

Prerequisites: ENGL 1100 Or Equivalent (3-6 credit hours) and 56 credit hours. Acquaints students with the basic methods of literary criticism and trains them in explicating particular texts and writing about literature. Introduces students to basic research and proper MLA documentation. Required of all English majors. Does not count toward the major in English. May not be taken on satisfactory/unsatisfactory option. Counts toward the Certificate in Writing.

**ENGL 3100 Junior-Level Writing: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent (3-6 credit hours) and 56 credit hours. Focuses on writing and literacies in various contexts. Builds on intellectual maturity, knowledge, and abilities gained through prior university studies. Enhances analytical, communicative, persuasive, and explanatory capabilities. Includes complex readings and research. Fulfills the university's requirement for a junior-level course in Communicative Skills. Counts toward the Certificate in Writing. May not be taken on a satisfactory/unsatisfactory basis.

**ENGL 3110 Junior Level Writing For International Students: 3 semester hours**

Prerequisites: ENGL 1110 or equivalent (3-6 credit hours) and 56 credit hours. Designed for any student whose first language is not English. Builds on intellectual maturity, knowledge, and abilities gained through prior university studies. Enhances analytical, communicative, persuasive, and explanatory capabilities in contemporary American English. Includes formal research and documentation methods from a variety of fields. Emphasizes students' reading abilities, both comprehension and vocabulary. Fulfills the university's requirement for a junior-level course in Communicative Skills. Counts toward the Certificate in Writing. May not be taken on a satisfactory/unsatisfactory basis.



**ENGL 3120 Business Writing: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent (3-6 hours) and junior standing. This course further develops the experienced writer's style and analytical capabilities to the level of sophistication necessary for upper-division writing assignments and for business and professional settings. Writing assignments may include business correspondence, reports, resumes, proposals, analyses, feasibility studies, and articles for in-house publications. The course emphasizes clarity, conciseness, organization, format, style, tone and mechanical correctness; expands upon students' research and documentation skills; and requires research in university libraries. Fulfills the University's requirement for a junior-level course in communicative skills. It may not be taken on a satisfactory/unsatisfactory basis.

**ENGL 3130 Technical Writing: 3 semester hours**

Prerequisite: ENGL 1100 or equivalent (3-6 hours) and junior standing. The major elements of industrial technical writing. Writing assignments include technical definitions, abstracts and summaries, mechanism descriptions, instructions, process analyses, technical reports and proposals. Emphasis is placed on clarity, conciseness, organization, format, style and tone. The course includes an introduction to research methods and documentation. All readings are selected from industrial material. Fulfills the University requirement for junior-level course in communicative skills, subject to the approval of the student's major department. May not be taken on the satisfactory/unsatisfactory option.

**ENGL 3140 News Writing: 3 semester hours**

Same as MEDIA ST 3214. Prerequisite: ENGL 1100 or equivalent. An introduction to news writing and reporting. Course covers basic components of news, reporting principles, and news writing style and structure. Daily writing assignments include coverage of speeches, meetings and interviews, accidents, deaths, courts, sports, consumer affairs and government. Emphasis on clarity, accuracy and speed. The course counts toward the Certificate in Writing.

**ENGL 3150 Feature Writing: 3 semester hours**

Same as MEDIA ST 3150. Prerequisite: ENGL 1100 or equivalent. Study of freelance and staff-written magazine or newspaper feature articles. Emphasis on relationship between types of publication and article content, research methods, and writing style. Frequent short assignments -- journal entries, interviews, library projects, article critiques, and market reports -- lead to production of full-length feature articles. May not be taken on the S/U option. The course counts toward the Certificate in Writing.

**ENGL 3160 Writing In The Sciences: 3 semester hours**

Prerequisites: ENGL 1100 or equivalent (3-6 hours) and junior standing. Designed to teach students how to write effectively in the sciences. Writing assignments include short reports, proposals and a major project. Students are encouraged to select projects that will reflect work in a science course which may include a research or analytical report, a formal proposal or a procedures/instructions manual. Emphasis is placed on clarity, conciseness, organization, format, style, and tone. The course will include an introduction to research methods and documentation. Fulfills the University requirement for a junior-level course in communicative skills, subject to the approval of the student's major department. May not be taken on the satisfactory/unsatisfactory option.

**ENGL 3180 Reporting: 3 semester hours**

Same as MEDIA ST 3180. Prerequisite: ENGL 3140 or equivalent. Theory and practice of reporting news for publication in the print media. Includes one classroom session and one field assignment weekly. Stories must be filed within deadline limits. Writing emphasis is on clarity, conciseness, and accuracy. The course counts toward the certificate in writing.

**ENGL 3280 Public Relations Writing: 3 semester hours**

Prerequisite: ENGL 3100 or equivalent. An introduction to the process of planning, producing, and evaluating written public relations messages. Writing assignments include media releases, letters, memos, position papers, background papers, brochures, and reports and proposals.

**ENGL 3500 Special Studies: 1-3 semester hours**

Prerequisite: A course in area of proposed work and consent of instructor. Individual work, with conferences adjusted to needs of the student. May not be used to meet specific English department distribution and language requirements. May be repeated for a maximum total of four hours credit.

**ENGL 3800 Topics In Women And Literature: 3 semester hours**

An examination of the role of women in literature, either as figures in literary works or as writers. Specific topics to vary from semester to semester. Since the topics of ENGL 3800 may change each semester, the course may be repeated for credit if the topics are substantially different.

**ENGL 4020 Writing Literary Criticism: 3 semester hours**

Prerequisite: ENGL 3100 or equivalent as judged by the instructor. Intensive training in the writing of literary criticism, with some attention to the bibliography and to methods of research in literature. Recommended for all English majors.

**ENGL 4030 Contemporary Critical Theory: 3 semester hours**

This course is to acquaint students with a range of critical methodologies that have gained currency since the 1960's; topics may include formalist, structuralist, post-structuralist, Marxist, reader-response, psychoanalytic, feminist, cognitive, and evolutionary approaches to literature and culture.

**ENGL 4060 Adolescent Literature: 3 semester hours**

The course will expose students to the large variety of quality adolescent literature available for reading and study in middle and high school classes. It will also examine the relevance of a variety of issues to the reading and teaching of adolescent literature, among them: reader response; theory and practice; multi-culturalism; literacy; the relation of adolescent literature to "classic" literature the role of adolescent literature in interdisciplinary studies; adolescent literature as an incentive to extracurricular reading.

**ENGL 4080 Narrative, Cognition, And Emotion: 3 semester hours**

Prerequisites: ENGL 2320; ENGL 3090, prerequisite or co-requisite. Examines narrative theory in the light of recent research into cognitive organization and the structure of the emotions. Traditional and contemporary theories of narrative--or realism, symbolism, point of view, tone, and genre--are developed through recent findings in empirical science. A variety of stories and novels are used as test cases for theoretical propositions.

**ENGL 4130 Advanced Poetry Writing Workshop: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent; ENGL 2030 or ENGL 3030 or consent of instructor. Advanced workshop in poetry writing. The course counts toward the Certificate in Writing.

**ENGL 4140 Advanced Fiction Writing Workshop: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent; ENGL 2040 or equivalent or consent of instructor. Advanced workshop in fiction writing. The course counts toward the certificate in Writing.

**ENGL 4160 Special Topics In Writing: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent. Special topics in writing that are not covered in other 4000level English courses. Since the topics of ENGL 4160 may change each semester, the course may be repeated for credit if the topics are substantially different.

**ENGL 4250 Old English Literature: 3 semester hours**

Prerequisites: ENGL 3100; or, for majors, ENGL 3090 prerequisite or corequisite and ENGL 2310 prerequisite or permission of instructor. An introduction to the literary culture of Anglo-Saxon England through study of the Old English language and close reading of a diverse group of Old English texts from the eighth to eleventh centuries.

**ENGL 4260 Chaucer: 3 semester hours**

The course concentrates on the poetry of Geoffrey Chaucer, including the Canterbury Tales, early poetic works, and the Troilus and Criseyde. All readings are in the original Middle English.

**ENGL 4270 Medieval English Literature: 3 semester hours**

A survey of old and middle English literature from Beowulf to Malory's Morte d'Arthur, exclusive of Chaucer. All works are read in modern English translations.

**ENGL 4320 Sixteenth-Century Poetry and Prose: 3 semester hours**

A broad selection of writers from the late 15th century through 1603, including Thomas More, the Sidneys, Spenser, and Shakespeare's sonnets.

**ENGL 4340 Early Seventeenth Century Poetry And Prose: 3 semester hours**

A broad selection of writers from 1603 through 1675, exclusive of Milton, including Bacon, Donne, Jonson, and Lanyer.

**ENGL 4350 Milton: 3 semester hours**

All the minor poems and the three longer poems with some attention to the major prose, Milton and his relation to the politics, theology and literature of the seventeenth century.

**ENGL 4360 Tudor And Stuart Drama: 3 semester hours**

A survey of the dramatic writings of the period from the interludes of John Heywood to the closing of the theatres in 1642, with particular attention to the plays of Marlowe, Jonson, Webster and Ford. Though Shakespeare will not be studied in this course; connections between his works and those of his contemporaries will be discussed.

**ENGL 4370 Shakespeare: Tragedies And Romances: 3 semester hours**

A study of the structure and language of Shakespeare's tragedies and romances, with particular attention to their genre as well as their relation to the cultural issues of Shakespeare's time. Shakespeare's narrative poems may also be included.

**ENGL 4380 Shakespeare: Comedies And Histories: 3 semester hours**

A study of the structure and language of Shakespeare's comedies and histories, with particular attention to their genre as well as their relation to the culture issues of Shakespeare's time. Shakespeare's sonnets may also be included.

**ENGL 4420 Age Of Dryden And Pope: 3 semester hours**

The beginnings of English neo-classic literature in the Restoration and its development through the first half of the eighteenth century, focusing on Dryden, Swift and Pope.

**ENGL 4450 The Eighteenth-Century English Novel: 3 semester hours**

The origins and early development of the English novel, from Defoe to Jane Austen.

**ENGL 4520 Romantic Poetry and Prose: 3 semester hours**

A broad selection of poetry and prose from the English Romantic movement. Primary focus on Blake, Wordsworth, Coleridge, Byron, Keats, and Shelley. Additional authors may include Mary Wollstonecraft, Robert Burns, Thomas De Quincey, Mary Shelley, John Clare, Felicia Hemans, Ottobah Cugoano, Olaudah Equiano, and others.

**ENGL 4540 The Nineteenth-Century English Novel: 3 semester hours**

Novels of the Romantic and Victorian periods, from Austen to George Eliot.

**ENGL 4550 Novels into Films: The Nineteenth Century: 3 semester hours**

Prerequisites: ENGL 2320, ENGL 3090. Novels by Austen, Eliot, Wilde, Hardy, and others read in themselves and as interpreted in film. Comparisons of the representational and aesthetic techniques available to novels and film.

**ENGL 4560 Prose And Poetry Of The Victorian Period: 3 semester hours**

Critical readings of selections from Tennyson, Browning, Arnold and others, in addition to selections from the major prose writing.

**ENGL 4580 Literature Of The Late Nineteenth And Early Twentieth Centuries: 3 semester hours**

Literature of the period between 1870 and the First World War, including works by writers such as Hardy, Conrad, James, Wilde, Stevenson, Shaw, Jefferies, and Wells.

**ENGL 4610 Selected Major American Writers I: 3 semester hours**

American literature of the nineteenth century: Emerson, Thoreau, Hawthorne, Melville, Whitman and others.

**ENGL 4620 Selected Major American Writers II: 3 semester hours**

American literature of the late nineteenth and early twentieth centuries: Dickinson, James, Twain, Cather, Frost, Dreiser and others.

**ENGL 4640 American Fiction To World War I: 3 semester hours**

Development of the novel and short story in America.

**ENGL 4650 Modern American Fiction: 3 semester hours**

The novel and short story in America since World War I. There may be some attention to British and continental influences.

**ENGL 4740 Poetry Since World War II: 3 semester hours**

Reading and analysis of contemporary poetry.

**ENGL 4750 Modern British Fiction: 3 semester hours**

Critical reading and analysis of British fiction of the twentieth century. There may be some attention to American and continental influences.

**ENGL 4760 Modern Drama: 3 semester hours**

British, American and European drama of the last one hundred years: the well-made play, the problem play, verse drama, new definitions of tragedy, the angry theater, theater of the absurd.

**ENGL 4770 Modern Poetry: 3 semester hours**

Critical reading and analysis of poetry of the late nineteenth and early twentieth centuries. Yeats, Eliot, Frost, Williams and others.

**ENGL 4800 Linguistics: 3 semester hours**

Prerequisites: ENGL 3100; majors, ENGL 3090. A survey of linguistics with emphasis on what the field reveals about the English language. Topics include the sounds of language, grammar, writing systems, language acquisition, language in society, language history, dialects, and usage.

**ENGL 4810 English Grammar: 3 semester hours**

Prerequisites: ENGL 3100; majors, ENGL 3090; ENGL 2810 or passing grade on English-Education Test of Basic Grammar. A study of modern English grammar from the perspectives of traditional, structural, and transformational grammar.

**ENGL 4820 History Of The English Language: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent A historical survey of the English language from its IndoEuropean roots through Old and Middle English to the present. Topics include changes in sound, meaning, and grammar, as well as developments in American English, including regional and social dialects.

**ENGL 4850 Topics In The Teaching Of Writing: 1-3 semester hours**

Same as TCH ED 5850. Prerequisites: ENGL 3100 or equivalent Special topics in the practice of and pedagogy of writing designed for in-service teachers. Topics may include writing at specific grade levels, writing/reading workshops, writing in urban settings, writing across the curriculum, action research, new technology, classroom and district-level assessment. May be repeated once for credit if topics differ. Counts toward Certificate in Writing.

**ENGL 4860 Editing: 3 semester hours**

Prerequisites: ENGL 3100 or its equivalent as judged by instructor; English ENGL 2810 or ENGL 4810. Introduction to the language and processes of editing. Includes copy editing, the study of style manuals, and an overview of the production process. Counts toward requirement for the Writing Certificate.

**ENGL 4880 Writing For Teachers: 3 semester hours**

Same as SEC ED 4880. Prerequisite: ENGL 3090 or junior level English. Writing for Teachers is an English-education course that supports writing across the curriculum for both pre-service English and content area teachers. Teacher candidates learn writing theories and literacy strategies to help their future students construct meaning from their discipline. The course works best for those who are completing level II or beginning level III education courses. The course counts toward the Certificate in Writing.

**ENGL 4890 Writing Internship: 3 semester hours**

Prerequisites: ENGL 3100 or its equivalent as judged by the instructor. Course limited to students who are completing certificates in writing. May be taken concurrently with the final course in the certificate sequence. Students work in a supervised internship to complete professional writing assignments. Special consent form required.

**ENGL 4892 Independent Writing Project: 3 semester hours**

Prerequisites: ENGL 3100 or equivalent as judged by instructor. Course limited to students who are completing their certificates in writing. May be taken concurrently with the final course in the certificate sequence. Students work individually with an instructor to complete an extensive creative writing or critical analysis writing project. This course is available on a limited basis only with the approval of the Coordinator and faculty sponsor. Special consent form is required.

**ENGL 4895 Editing "Litmag": 3 semester hours**

Prerequisites: ENGL 3100 or equivalent and at least two creative writing courses. Course is primarily for students nearing the end of their certificates in writing. Students in this course create "Litmag", the UM-St. Louis student literary magazine. Students will call for submissions; they will read and select work to be published; and they will produce the magazine, dealing with issues like format, budget, proofreading, print run, advertising, distribution, and publicity. The course is offered only in the spring and culminates with the publication of "Litmag" in late April.

**ENGL 4920 Major Works Of European Fiction: 3 semester hours**

Prerequisites: 2 college courses in literature The development of the European novel in the 19th and 20th centuries. Representative of works of writers such as Balzac, Flaubert, Dostoevsky, Tolstoy, Kafka, and Proust, read in translation.

**ENGL 4925 The Short Story in World Literature: 3 semester hours**

Students will read a wide variety of short fiction, from very brief pieces to novellas, including stories from all over the world and from several different centuries either in translation or in the original English. The course will also cover short theoretical works on narrative and critical commentaries on some of the fiction.

**ENGL 4930 Studies In Gender And Literature: 3 semester hours**

Same as GS 4930. The course examines the role of gender in literature, including the transformation of literary genres by women writers, writings by women during a particular historical period, and gender relations in literature. Specific topics vary from semester to semester. The course may be repeated for credit with departmental approval.

**ENGL 4931 English Women Writers, 1300-1750: 3 semester hours**

Same as GS 4931. Works will be read ranging in scope from closest drama and romance to lyrics to personal, political, and religious writing by women, such as Margery Kempe, Mary Sidney, and Amelia Lanyer, who wrote during a period when reading and writing were not the female norm.

**ENGL 4932 Female Gothic: 3 semester hours**

Same as GS 4932. The course examines the historical development of the female gothic, a genre which employs narrative strategies for expressing fears and desires associated with female experience. From the late 18th century to the present, we will trace the persistence of the Gothic vision in fiction and film.

**ENGL 4934 Austen And The Brontes: 3 semester hours**

Same as GS 4934. This course covers the novels of the major 19th century British writers Jane Austen and the three Bronte sisters, Anne, Emily, and Charlotte. The course will be devoted to Austen's romantic comedies and the historical/cultural contexts that inform the novels, as well as the darker romanticism of the Brontes, along with the biographical, cultural, philosophical, and religious contexts of their work.

**ENGL 4936 Tales Of The Islamic East: 3 semester hours**

Same as GS 4936. Adventure, gender, and power in British and post-colonial writing: Lady Montague on Turkey, Gibbon on Islam, Byron and Hemans on harems and heroes, Disraeli on the Jewish Caliph of Bagdad, T.E. Lawrence on Arabia, and el Saadawi and Rushdie on (post)modern gender and the Islamic East.

**ENGL 4938 American Women Poets Of The 20Th/21St Centuries: 3 semester hours**

Same as GS 4938. Introduction to American women poets since 1900: anarchists, Imagists, harlem formalists, white lyricists, modernists (Ridge, H.D., Dunbar-Nelson, Millary, Stein); mid-century giants (Rukeyser, Brooks) and Confessionals (Sexton, Plath); feminists and multiculturalists (Rich, Lorde, Giovanni, Hogan), poets of witness and the play of language and the mind (Klepfisz, Olds, Mullen, Perillo).

**ENGL 4950 Special Topics In Literature: 3 semester hours**

Special topics in literature that are not covered in other 4000-level English courses. Since the topics of ENGL 4950 may change each semester, the course may be repeated for credit if the topics are substantially different.

**ENGL 5000 Introduction To Graduate Study In English: 3 semester hours**

A course designed to prepare students for the professional study of English. The course will both familiarize students with basic bibliographic tools and scholarly methods and introduce them to issues that are of current critical interest to those engaged in the advanced study of literature. These issues include gender, textuality, reader-response, multiculturalism, feminism, psychoanalysis, cultural studies, literary history and the relationship of literature to philosophy, history, and science. Must be taken within the first twelve hours of graduate study.



**ENGL 5100 Graduate Workshop In Poetry: 3 semester hours**

Prerequisites: Open to students in the creative writing program and to others with permission of instructor. Consists of a writing workshop in which the poetry written by the students enrolled in the course is discussed and analyzed by the instructor and members of the class. Students taking this course will be expected to write original poetry throughout the course. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5110 Graduate Workshop In Fiction: 3 semester hours**

Prerequisites: Open to students in the creative writing program and to others with permission of instructor. Consists of a writing workshop in which the fiction (short stories or chapters of a novel) written by the students enrolled in the course is discussed and analyzed by the instructor and members of the class. Students taking this course will be expected to write original fiction throughout the course. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5130 Graduate Workshop In The Novel: 3 semester hours**

Prerequisites: Permission of instructor, based on submission of sample of novel manuscript. A writing workshop in which a novel written by the student is discussed and analyzed by the instructor and members of the class. Students must have a complete novel manuscript (50,000 words minimum) ready for discussion by the beginning of class. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5140 Graduate Workshop In Nonfiction: 3 semester hours**

Prerequisites: Open to students in the MFA program and to others with permission of instructor. A variable-topics writing workshop focusing on one or more of the following forms: personal essay, memoir, travel writing, literary journalism, biography, or other types of literary nonfiction. May be repeated for maximum graduate credit of fifteen (15) hours.

**ENGL 5150 Magical Realism Workshop: 3 semester hours**

Prerequisites: Open to students in the MFA Program and other graduate students with consent of instructor. Half of this course will be a study of the classic texts of magical realism and the other half will be a fiction workshop in which the members of the class will write in this imaginative and symbolic genre. Non-MFA students will write a critical study of magical realism.

**ENGL 5170 Techniques, Methods, And Effects In Fiction Writing: 3 semester hours**

Prerequisite: Open to students in the MFA program and to others with consent of the instructor. This course analyzes the technical choices made by important contemporary fiction writers in the areas of point of view, tone, setting, form, and plot structure, and it examines the effects of those choices. Close consideration is given to fictional techniques that contribute to a story's characterization, tension, interest, reliability, drama, irony, and humor. The course is primarily for creative writers.

**ENGL 5180 Form And Theory Of Poetry: 3 semester hours**

Prerequisites: Open to students in the MFA Program and other graduate students with consent of instructor. This course explores various aspects of traditional and contemporary poetry. The student will gain an understanding of formal poetry-rhyme and meter-as well as of traditional types of poetry, for example, the lyric and the narrative. Throughout the course, an emphasis will be maintained on free verse and a greater understanding of its practice. Students will read selectively in the poetry, theory, and critical approaches of various periods, for example, the romantic and the modern, and within various movements, such as the symbolist or confessional.

**ENGL 5190 Literary Journal Editing: 3 semester hours**

Prerequisites: Open to students in the MFA program who have had at least two graduate writing workshops and to others with consent of the instructor. In this course students serve as the first readers of all submissions to the university's literary magazine, *Natural Bridge*. Students will read and evaluate poems, short stories, and essays and recommend a body of work to the editorial board of the magazine. The editorial board will then consider the class consensus in its final selection of material for publication. In addition to this primary task of editorial selection, students will also be involved in the productions of an issue of the magazine. May be repeated for maximum graduate credit of nine hours.

**ENGL 5200 MFA Readings: 3 semester hours**

Prerequisites: Open to students in the MFA program and to others with consent of the instructor. This is an independent reading course. In consultation with an MFA faculty member, students choose works from the MFA Reading List and read them with the goal of broadening and sharpening their technical skills as writers. Students ordinarily choose works in one genre: poetry, the short story, or the novel. Each week the student reads and reports on at least one work. The course may be taken only once.

**ENGL 5250 Studies In Middle English Literature: 3 semester hours**

Special topics in English literature before 1500.

**ENGL 5300 Renaissance Literature: 3 semester hours**

Special topics in English literature from 1500 to 1660.

**ENGL 5400 Eighteenth Century Literature: 3 semester hours**

Studies in Augustan poetry and prose, including drama and fiction, with emphasis on background and major figures.

**ENGL 5500 Nineteenth Century Literature: 3 semester hours**

Special topics in English romanticism, in Victorian life and thought, and in the development of the novel and of poetry between 1797 and 1914.

**ENGL 5600 American Literature Before 1900: 3 semester hours**

Selected American writers or topics from the colonial period to 1900.

**ENGL 5650 Critical Studies In African American Texts: 3 semester hours**

This course will examine the critical and literary work of African Americans and Afro-Caribbeans. It will focus on fiction, poetry, short stories and essays expressing the major cultural, literary and thematic concerns of African American writing in the latter part of the twentieth century. Students will become familiar with "movements" in African American literature such as protest literature, the Black Arts Movement, and/or the emergence of African American Women's writing, among others. Students will utilize current scholarship, theory, and criticism as a means to investigate and study primary texts in the course.

**ENGL 5700 Twentieth-Century American Literature: 3 semester hours**

Selected American writers or topics from 1900 to the present.

**ENGL 5750 Twentieth-Century British Literature: 3 semester hours**

Selected British and Commonwealth writers of the twentieth century.

**ENGL 5800 Modern Linguistics: 3 semester hours**

Prerequisite: None. A study of selected topics in the structure of the English language, combining readings in current linguistics publications with original research.

**ENGL 5840 Theories Of Writing: 3 semester hours**

An analysis of major modern theories in composition.

**ENGL 5850 Studies In Composition: 3 semester hours**

The study of special topics in composition. Topics may include history of composition, psychology of writing, reader response theory, etc.



**ENGL 5860 Writing/Reading Theory: 3 semester hours**

This course studies the parallel evolution of reading and writing theory and pedagogy. Topics include the influence of psycholinguistics and reader-response theory and the link between reading and writing theory and instruction.

**ENGL 5870 Composition Research: 3 semester hours**

This course equips students both to analyze and conduct research in composition. Coursework will teach students to evaluate methodologies and implications, to analyze data, and to design their own research projects.

**ENGL 5890 Teaching College Writing: 3 semester hours**

This course provides the opportunity for practical application of composition theory with an emphasis on improving teaching skills. Strongly recommended for graduate teaching assistants.

**ENGL 5920 Studies In Fiction: 3 semester hours**

Study of a few selected British and American novelists and short story writers.

**ENGL 5940 Seminar In Gender And Literature: 3 semester hours**

Same as GS 5940 Gender studies in literature of different periods, types, and genres; satisfies area requirement (1-6) appropriate to its period, national literature, and genre.

**ENGL 5950 Seminar In Special Topics: 1-3 semester hours**

Special topics which are not covered in other graduate-level English courses.

**ENGL 5970 Independent Reading: 1-3 semester hours**

Directed study in areas of English for which courses are not available.

**ENGL 6000 Thesis: 1-6 semester hours**

PREREQUISITE: 3.5 graduate GPA Thesis research and writing on a selected topic in English studies. May be taken over two semesters, three (3) hours each semester.

**ENGL 6880 Gateway Writing Project: 3-6 semester hours**

Same as TCH ED 6880. An intensive course in the writing process and the writing curriculum, designed for experienced teachers. Readings of current theory and research will be related to participants' experience as writers and as teachers. Topics may vary. May be repeated for credit. No more than 6 hours may be applied toward the M.Ed. Counts toward the Graduate Certificate in Teaching Writing.

## Engineering

### Courses

**ENGR 1010 Introduction To Engineering: 1 semester hour**

Course consists of a series of lectures on engineering, fields of study within engineering, the engineering profession, types of work activities, and professional registration. Introduction to team building and the teamwork approach to projects and problem-solving common in an engineering curriculum and in the engineering profession. Guest lecturers will participate.

**ENGR 2310 Statics: 3 semester hours**

Prerequisites: MATH 1900 and PHYSICS 2111. Statics of particles and rigid bodies. Equivalent systems of forces. Distributed forces; centroids. Applications to trusses, frames, machines, beams, and cables. Friction. Moments of inertia. Principle of virtual work and applications.

**ENGR 2320 Dynamics: 3 semester hours**

Prerequisite: ENGR 2310. Review of vector algebra and calculus. Kinematics of a particle. Newton's laws and the kinetics of a particle. Work and energy. Impulse and momentum. Kinematics of rigid bodies. General theorems for systems of particles. Kinetics of rigid bodies. The inertia tensor.

### Courses

**ENGR 1010 Introduction To Engineering: 1 semester hour**

Course consists of a series of lectures on engineering, fields of study within engineering, the engineering profession, types of work activities, and professional registration. Introduction to team building and the teamwork approach to projects and problem-solving common in an engineering curriculum and in the engineering profession. Guest lecturers will participate.

**ENGR 2310 Statics: 3 semester hours**

Prerequisites: MATH 1900 and PHYSICS 2111. Statics of particles and rigid bodies. Equivalent systems of forces. Distributed forces; centroids. Applications to trusses, frames, machines, beams, and cables. Friction. Moments of inertia. Principle of virtual work and applications.

**ENGR 2320 Dynamics: 3 semester hours**

Prerequisite: ENGR 2310. Review of vector algebra and calculus. Kinematics of a particle. Newton's laws and the kinetics of a particle. Work and energy. Impulse and momentum. Kinematics of rigid bodies. General theorems for systems of particles. Kinetics of rigid bodies. The inertia tensor.

## Ensemble Performance

### Courses

**EN PER 1399 Music Ensemble Registration: 0 semester hours**

Prerequisite: Consent of Instructor Study, preparation, and performance of music ensemble literature. Concurrent registration in one or more of the following courses is required: Ensemble performance EN PER 1400, EN PER 1410, EN PER 1500, EN PER 1520, EN PER 1530, EN PER 1541, EN PER 1542, EN PER 1543, EN PER 1544, EN PER 1545, EN PER 1546, EN PER 1550, EN PER 1560, EN PER 1570, EN PER 4560, EN PER 5310, EN PER 5490.

**EN PER 1400 University Chorus: 1 semester hour**

Prerequisite: Consent of instructor. Preparation and performance of choral literature.

**EN PER 1410 The University Singers: 1 semester hour**

Prerequisite: Consent of instructor. The study and performance of music for vocal chamber ensemble.

**EN PER 1420 University Concert Band: 1 semester hour**

Prerequisites: Consent of Instructor. Study, preparation, and performance of Music for Concert Band. This course is not intended to fulfill the ensemble requirement for music majors/minors.

**EN PER 1500 University Orchestra: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation and performance of orchestral repertory.

**EN PER 1520 University Symphonic Band: 1 semester hour**

Prerequisite: Consent of instructor. Study preparation and performance of music for the winds and percussion.

**EN PER 1530 University Wind Ensemble: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation, and performance of music for winds and percussion including the preparation and performance of various chamber ensembles for woodwinds and brass.

**EN PER 1532 University Pep Band: 1 semester hour**

Prerequisites: Consent of Department/Instructor. Study, preparation, and performance of music in diverse contemporary styles. Performances of the University Pep Band are primarily in conjunction with campus activities and athletic events.

**EN PER 1541 Chamber Ensemble Brass: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1542 Jazz Combo: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation and performance of music for small ensembles.

**EN PER 1543 Chamber Ensemble Percussion: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1544 Chamber Ensemble Strings: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles: a)brass; b)jazz; c)percussion; d)string; e)voice; f)woodwinds.

**EN PER 1545 Chamber Ensemble Voice: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1546 Chamber Ensemble Woodwinds: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1550 Jazz Ensemble: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation, and performance of jazz music for big band.

**EN PER 1560 Opera Workshop: 1 semester hour**

Prerequisite: Consent of instructor. Instruction in movement, basic stage techniques, technical theater, repertory and performance techniques and preparation. May be repeated for credit.

**EN PER 2700 Seminar in Performance and Outreach: 1 semester hour**

Prerequisites: Acceptance as a music major/minor and two semesters of applied music study or by consent on instructor. Instruction in developing performance repertoire and skills for community and educational outreach programming. Student presentations of these programs in community and educational venues required. Course may be repeated.

**EN PER 4560 Advanced Opera Workshop: 1 semester hour**

Prerequisite: Consent of instructor. Instruction in movement stage technique, technical theater, repertory and performance based on advanced vocal skills. May be repeated for credit.

**EN PER 5310 Graduate Chamber Ensemble: 1 semester hour**

Prerequisites: Graduate standing in music and consent of department. Study and performance of traditional and nontraditional chamber literature.

**EN PER 5490 Graduate Ensemble: 1 semester hour**

Prerequisites: Graduate standing in music or consent of department. Study, preparation, and performance of ensemble literature from the choral, orchestral, or band/wind ensemble repertory. May be repeated for a total of four hours of credit.

## Courses

**EN PER 1399 Music Ensemble Registration: 0 semester hours**

Prerequisite: Consent of Instructor. Study, preparation, and performance of music ensemble literature. Concurrent registration in one or more of the following courses is required: Ensemble performance EN PER 1400, EN PER 1410, EN PER 1500, EN PER 1520, EN PER 1530, EN PER 1541, EN PER 1542, EN PER 1543, EN PER 1544, EN PER 1545, EN PER 1546, EN PER 1550, EN PER 1560, EN PER 1570, EN PER 4560, EN PER 5310, EN PER 5490.

**EN PER 1400 University Chorus: 1 semester hour**

Prerequisite: Consent of instructor. Preparation and performance of choral literature.

**EN PER 1410 The University Singers: 1 semester hour**

Prerequisite: Consent of instructor. The study and performance of music for vocal chamber ensemble.

**EN PER 1420 University Concert Band: 1 semester hour**

Prerequisites: Consent of Instructor. Study, preparation, and performance of Music for Concert Band. This course is not intended to fulfill the ensemble requirement for music majors/minors.

**EN PER 1500 University Orchestra: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation and performance of orchestral repertory.

**EN PER 1520 University Symphonic Band: 1 semester hour**

Prerequisite: Consent of instructor. Study preparation and performance of music for the winds and percussion.

**EN PER 1530 University Wind Ensemble: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation, and performance of music for winds and percussion including the preparation and performance of various chamber ensembles for woodwinds and brass.

**EN PER 1532 University Pep Band: 1 semester hour**

Prerequisites: Consent of Department/Instructor. Study, preparation, and performance of music in diverse contemporary styles. Performances of the University Pep Band are primarily in conjunction with campus activities and athletic events.

**EN PER 1541 Chamber Ensemble Brass: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1542 Jazz Combo: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation and performance of music for small ensembles.

**EN PER 1543 Chamber Ensemble Percussion: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1544 Chamber Ensemble Strings: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles: a)brass; b)jazz; c)percussion; d)string; e)voice; f)woodwinds.

**EN PER 1545 Chamber Ensemble Voice: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1546 Chamber Ensemble Woodwinds: 1 semester hour**

Prerequisite: Consent of department. Study, preparation and performance of music for small ensembles.

**EN PER 1550 Jazz Ensemble: 1 semester hour**

Prerequisite: Consent of instructor. Study, preparation, and performance of jazz music for big band.

**EN PER 1560 Opera Workshop: 1 semester hour**

Prerequisite: Consent of instructor. Instruction in movement, basic stage techniques, technical theater, repertory and performance techniques and preparation. May be repeated for credit.

**EN PER 2700 Seminar in Performance and Outreach: 1 semester hour**

Prerequisites: Acceptance as a music major/minor and two semesters of applied music study or by consent on instructor. Instruction in developing performance repertoire and skills for community and educational outreach programming. Student presentations of these programs in community and educational venues required. Course may be repeated.

**EN PER 4560 Advanced Opera Workshop: 1 semester hour**

Prerequisite: Consent of instructor. Instruction in movement stage technique, technical theater, repertory and performance based on advanced vocal skills. May be repeated for credit.

**EN PER 5310 Graduate Chamber Ensemble: 1 semester hour**

Prerequisites: Graduate standing in music and consent of department Study and performance of traditional and nontraditional chamber literature.

**EN PER 5490 Graduate Ensemble: 1 semester hour**

Prerequisites: Graduate standing in music or consent of department Study, preparation, and performance of ensemble literature from the choral, orchestral, or band/wind ensemble repertory. May be repeated for a total of four hours of credit.

## Foreign Language-Other

### Courses

**FGN LANG 2100 Languages and World View: 3 semester hours**

SAME AS ANTHRO 2100 and SOC 2200. Prerequisites: Completion of two semesters of one foreign language at the college level. This course investigates the extent to which peoples' linguistic and cultural background informs their understanding of the world. Experts on a variety of major Western and non-Western languages will introduce students to differences in ideas about time, space, human relationships, and other issues based on language. The course will also analyze common cultural misunderstandings among native speakers of English and speakers of other languages.

**FGN LANG 2192 Service Learning In Foreign Languages: 1-3 semester hours**

Prerequisites: Permission of course instructor and concurrent enrollment in a Foreign Language course (Arabic, Chinese, English as a Second Language, French, German, Greek, Japanese, Latin or Spanish) at the 2000-level or higher. Taken concurrently with a qualifying foreign language course, students will participate in a community service experience that is academically integrated into the students' course of study. Community service in a local or international community organization, as approved by the course instructor, is required. Determination of the type of community service to be conducted and the number of hours required will be made in consultation with the instructor. May be repeated for a maximum of 6 credit hours.

**FGN LANG 4589 Curriculum and Methods of Teaching Foreign Language: 3 semester hours**

Same as SEC ED 4589. Prerequisites: TCH ED 3310 or TCH ED 5310 and passing the departmental language skills test. A study of the scope and sequence of the foreign language courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of foreign language. To be taken prior to student teaching. This course must be completed in residence. Not available for graduate credit.

**FGN LANG 4590 Foreign Language Teaching Seminar: 2 semester hours**

Same as SEC ED 4590. Prerequisites: Concurrent enrollment in SEC ED 4990 or consent of instructor. A practicum course in the teaching of foreign languages. Review and explanation of drills, dialogues, and a variety of classroom techniques, oral and written. A continuation of FGN LANG 4589 / SEC ED 4589, Curriculum and Methods, with an emphasis on specific practical skills. To be taken concurrently with SEC ED 4990, Student Teaching. Not available for graduate credit.

**FGN LANG 5311 Special Topics In Foreign Language Teaching: 3 semester hours**

Prerequisite: Consent of the Instructor. Designed for in-service foreign language teachers, this course focuses on the study of special topics in the field of foreign language learning with an emphasis on research applications to the improvement of practice. Topics may include technology for FL learning, the teaching of writing in the FL classroom, the teaching of reading in the FL classroom, proficiency-oriented instruction and assessment, second language acquisition for FL teachers, action research in the FL classroom. May be repeated for credit provided the topic is different. May be applied toward the Master's in Secondary Education with an emphasis in FL teaching.

**FGN LANG 5399 Standards-Based Foreign Language Instruction: 3 semester hours**

Prerequisites: Teacher certification and one year teaching experience. Designed to provide in-service foreign language teachers with the knowledge and skills to design instructional units that reflect the profession's standards for foreign language learning.

### Courses

**FGN LANG 2100 Languages and World View: 3 semester hours**

SAME AS ANTHRO 2100 and SOC 2200. Prerequisites: Completion of two semesters of one foreign language at the college level. This course investigates the extent to which peoples' linguistic and cultural background informs their understanding of the world. Experts on a variety of major Western and non-Western languages will introduce students to differences in ideas about time, space, human relationships, and other issues based on language. The course will also analyze common cultural misunderstandings among native speakers of English and speakers of other languages.

**FGN LANG 2192 Service Learning In Foreign Languages: 1-3 semester hours**

Prerequisites: Permission of course instructor and concurrent enrollment in a Foreign Language course (Arabic, Chinese, English as a Second Language, French, German, Greek, Japanese, Latin or Spanish) at the 2000-level or higher. Taken concurrently with a qualifying foreign language course, students will participate in a community service experience that is academically integrated into the students' course of study. Community service in a local or international community organization, as approved by the course instructor, is required. Determination of the type of community service to be conducted and the number of hours required will be made in consultation with the instructor. May be repeated for a maximum of 6 credit hours.

**FGN LANG 4589 Curriculum and Methods of Teaching Foreign Language: 3 semester hours**

Same as SEC ED 4589. Prerequisites: TCH ED 3310 or TCH ED 5310 and passing the departmental language skills test. A study of the scope and sequence of the foreign language courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of foreign language. To be taken prior to student teaching. This course must be completed in residence. Not available for graduate credit.

**FGN LANG 4590 Foreign Language Teaching Seminar: 2 semester hours**

Same as SEC ED 4590. Prerequisites: Concurrent enrollment in SEC ED 4990 or consent of instructor. A practicum course in the teaching of foreign languages. Review and explanation of drills, dialogues, and a variety of classroom techniques, oral and written. A continuation of FGN LANG 4589 / SEC ED 4589, Curriculum and Methods, with an emphasis on specific practical skills. To be taken concurrently with SEC ED 4990, Student Teaching. Not available for graduate credit.

**FGN LANG 5311 Special Topics In Foreign Language Teaching: 3 semester hours**

Prerequisite: Consent of the Instructor. Designed for in-service foreign language teachers, this course focuses on the study of special topics in the field of foreign language learning with an emphasis on research applications to the improvement of practice. Topics may include technology for FL learning, the teaching of writing in the FL classroom, the teaching of reading in the FL classroom, proficiency-oriented instruction and assessment, second language acquisition for FL teachers, action research in the FL classroom. May be repeated for credit provided the topic is different. May be applied toward the Master's in Secondary Education with an emphasis in FL teaching.

**FGN LANG 5399 Standards-Based Foreign Language Instruction: 3 semester hours**

Prerequisites: Teacher certification and one year teaching experience. Designed to provide in-service foreign language teachers with the knowledge and skills to design instructional units that reflect the profession's standards for foreign language learning.

## Finance

### Courses

**FINANCE 1590 Personal Finance For Nonbusiness Majors: 3 semester hours**

For future professionals who want to learn more about personal finance and how to better manage their resources. The topics include purchasing/leasing cars, home acquisitions, investing in stocks and bonds, mutual funds, retirement planning and health and life insurance. Special emphasis will be on the nontechnical aspects of these issues. Cannot be used for credit in BSBA program.

**FINANCE 3500 Financial Management: 3 semester hours**

Prerequisites: ECON 1002, MATH 1105, and ACCTNG 2400 and a 2.0 overall GPA. The study of a firm's need for funds; the institutions, instruments and markets concerned with raising funds; and the techniques of analysis used to determine how effectively these funds, once raised, are invested within the firm.

**FINANCE 3501 Financial Policies: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. The intensification and application of the concepts developed in FINANCE 3500. Special emphasis is given to the development of top management policies and their application toward complex problems of finance. Techniques for identifying and dealing with these problems before they become acute will be investigated. Cases will be integrated with appropriate outside reading.

**FINANCE 3502 Treasury Management: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. The focus of this course is on the role cash management plays in corporate finance. Topics include cash collection and payment systems, forecasting cash flows, electronic fund transfers, check processing, international cash management and managing bank relationships. Students passing the course with a grade of A or B are permitted to take the qualifying exam to become a Certified Cash Manager (CCM) under a special arrangement with the Treasury Management Association. Along with other finance courses, this class prepares students for careers in the Treasury Departments of major companies or with service providers like banks.

**FINANCE 3503 Computer Applications In Finance: 3 semester hours**

Prerequisite: INFSYS 1800, FINANCE 3500, one 3000-level finance course and a 2.0 overall GPA. Financial problem solving and applications on the micro-computer. A project oriented course with an emphasis on micro based finance projects: Present value/IRR analysis, duration, immunization, portfolio optimization, leasing, capital budgeting, financial forecasting, options and futures.

**FINANCE 3520 Investments: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. Financial analysis of debt and equity instruments available on organized exchanges and in less tangible "over the counter" markets. Techniques of such analysis being presented in context with economic and management circumstances within the company, industry and economy.

**FINANCE 3521 Financial Engineering: Applying Derivatives: 3 semester hours**

Prerequisites: FINANCE 3500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 3520) prior to enrolling in FINANCE 3521.



**FINANCE 3523 Fixed Income Analysis: 3 semester hours**

Prerequisites: FINANCE 3500. This course explores key issues in fixed income securities. The topics include pricing of bonds, measuring bond yields, bond price volatility, factors affecting yields and the term structure of interest rates, treasury securities, corporate debt instruments, residential mortgage loans, collateralized mortgage/debt obligation, and analysis of bonds with embedded options. The course prepares students for the CFA exams of Level 1 in the area of fixed income analysis.

**FINANCE 3525 Practicum In Investments: 1 semester hour**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. Students will apply their knowledge of stocks and bonds by managing a real dollar portfolio of securities. This course requires that students perform technical and fundamental analysis, prepare research reports, present proposals and participate in group investment decisions. The University's Student Investment Trust provides the money for students to invest. Course may be repeated for credit up to a maximum of 3 credit hours.

**FINANCE 3540 Introduction to Financial Institutions and Financial Markets: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. The course surveys financial institutions and financial markets and addresses the interplay between institutions and markets. State and federal regulation of institutions and markets is explored. A portion of the course addresses current events, managerial policy issues, and regulatory issues in financial services and markets. Focus is primarily U.S. institutions and markets, but the evolving impact of globalization and importance of the Foreign Exchange Market on U. S. financial institutions are developed.

**FINANCE 3541 Commercial Bank Management: 3 semester hours**

Prerequisites: ECON 1002, FINANCE 3500 and a 2.0 overall GPA. Corporate finance and microeconomics are applied to matters of importance to commercial bankers. Among the subjects treated are bank-asset portfolio construction, lending policies, liabilities management, bank capital structure, short-run cash management, financial market rates and flows, and quantitative models for bank management. Commercial bank management is analyzed from an internal viewpoint in terms of what bank managers should look for in asset management and why; what market conditions they should be aware of; and what techniques they can use to meet changing economic and financial conditions.

**FINANCE 3542 Principles Of Real Estate: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. As an introduction to the real estate industry, the course broadly explores all phases of acquisition, development and disposal of real property. Topics include legal requirements of contracts, property rights, valuation and appraisal techniques, marketing, brokerage operations and practices, mortgage financing, leasing and property management.

**FINANCE 3560 Practice Of Personal Financial Planning: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. Professional financial planning requires broad knowledge of investments, insurance, income taxation, retirement planning, and estate planning, as well as certification requirements and legal/ethical issues. This course introduces students to the field of financial planning, and provides an integrated overview of the topics listed above. Students interested in the Financial Planning track are encouraged to complete this course prior to taking other courses in the track.

**FINANCE 3561 Principles Of Insurance: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This is a survey course intended to introduce students to the basic concepts of insurance. Topics include the nature of risks, types of insurance carriers and markets, insurance contracts and policies, property and casualty coverages, life and health insurance, and government regulations. The functions of underwriting, setting premiums, risk analysis, loss prevention, and financial administration of carriers are emphasized.

**FINANCE 3562 Life Insurance And Employee Benefits: 3 semester hours**

Prerequisites: FINANCE 3500 or equivalent and a minimum campus GPA of 2.0 This course explores the life insurance business from the perspective of both the consumer and provider. Coverage will include an analysis of the various types of life insurance products, aspects of life insurance evaluation, reinsurance, underwriting, and uses of life insurance in financial planning. Also included is an examination of the tax, legal, and ethical requirements.

**FINANCE 3563 Retirement Planning And Employee Benefits: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator The course is designed to give students an understanding of the retirement planning process. Students will gain an appreciation of the usefulness (and shortcomings) of employee benefits and develop an ability to counsel others on important retirement and employee benefit decisions. Corporate pension and profit sharing plans, self-employed Keough plans, IRA's, annuities, health insurance, and social security will be discussed.

**FINANCE 3564 Estate Planning And Trusts: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator This course will focus on the responsibility of a financial planner in the formulation and implementation of an estate plan. Topics include wills, lifetime transfers, trusts, gifts, estate reduction techniques, tax implications in estate planning, business and inter-family transfers, dealing with incompetency, postmortem techniques, and the role of fiduciaries. Lectures, cases, and guest speakers will be used to stimulate analysis and discussion.

**FINANCE 3565 Seminar in Financial Planning: 3 semester hours**

Prerequisites: ACCTNG 3441, FINANCE 3520, FINANCE 3560, FINANCE 3561, FINANCE 3563, and FINANCE 3564; a minimum campus GPA of 2.0; or permission of instructor. This course serves as the capstone in the registered Financial Planning curriculum. Students will prepare and present comprehensive, professional-level personal financial plans. This course is required by the Certified Financial Planner Board of Standards for those who wish to sit for the Certified Financial Planner examination.

**FINANCE 3580 International Corporate Finance: 3 semester hours**

Same as INTL BUS 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This course explores corporate finance in the context of a global environment. Financial managers for an international firm must deal with all the normal problems faced by domestic corporations plus additional foreign exchange and political risks. Class discussions will focus on applying financial techniques to decision making in foreign operations. Students are required to work in a group to undertake a project related to international finance.

**FINANCE 3582 International Investments: 3 semester hours**

Same as INTL BUS 3582. Prerequisites: FINANCE 3500. This course explores the concepts of investing and hedging risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.

**FINANCE 3590 Internship In Finance: 1-3 semester hours**

Prerequisite: a minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of finance electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience in a Track area are the primary goals. The student's program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project. FINANCE 3590 may not be counted toward the minimum 15 credit hours of finance electives for a finance emphasis.

**FINANCE 3595 Special Administration Problems - Finance: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**FINANCE 3598 Seminar in Finance: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of finance. May be repeated for credit with different topics.

**FINANCE 3599 Independent Study In Finance: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in finance under the supervision of a full-time finance faculty member.

**FINANCE 5599 Individual Research in Finance: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Finance under the guidance of a specific professor.

**FINANCE 6500 Financial Management: 3 semester hours**

Prerequisites: ACCTNG 5400 or ACCTNG 2400, LOG OM 5300 or LOG OM 3300, and BUS AD 5000 or ECON 1001 and ECON 1002. This course provides an in-depth analysis of corporate finance including asset pricing, risk and return, short- and long-term investment decisions, capital structure choices, dividend policy, derivatives, mergers and acquisitions, and a host of other current topics. The material is taught through lectures and problem solving.

**FINANCE 6501 Advanced Financial Management: 3 semester hours**

Prerequisite: FINANCE 6500 and LOG OM 5300. Exposure to recent financial management theory through selected readings. Financial management problems are considered by the use of cases and simulation models. An original research project under the supervision of instructor is required.

**FINANCE 6520 Security Analysis: 3 semester hours**

Prerequisite: FINANCE 6500 and LOG OM 5300 An in-depth study of techniques used in evaluating various financial assets as investment opportunities. Financial assets studied include common stock, preferred stock, and fixed income securities. Other related topics such as sources of investment information and current market trends are discussed.

**FINANCE 6521 Financial Forensics: The Science of Derivatives: 3 semester hours**

Prerequisites: FINANCE 6500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 6520) prior to enrolling in FINANCE 6521.

**FINANCE 6540 Financial Institutions and Financial Markets: 3 semester hours**

Prerequisite: Graduate Status and FINANCE 6500. By lecture and casework, the course surveys markets (Money Market, Capital Markets, Foreign Exchange) and various forms of financial institutions. Historical and evolving business models of financial institutions are explored in the context of regulation, economics, and competition. Interplay between institutions and markets is addressed. Structure and purpose of regulation is examined. A portion of the course involves current events and managerial policy issues in financial services. A major U.S. financial institution is selected and case analyzed by the class. Focus is U.S. institutions and markets, but impact of globalization is discussed.

**FINANCE 6541 Commercial Bank Management: 3 semester hours**

Prerequisite: FINANCE 6500. This course explores the various bank management techniques required to manage a modern commercial bank in a rapidly changing environment. Topics include asset and liability management, capital adequacy, bank holding companies, profitability, and bank market structure and regulation.

**FINANCE 6542 Real Estate: 3 semester hours**

Prerequisite: FINANCE 6500 This course provides a broad introduction to real estate with a focus on legal issues, market analysis, valuation, financing, leasing and investment decisions. Classes are conducted in a standard lecture format with discussion on current topics. No prior knowledge of the industry is required.

**FINANCE 6580 International Financial Management: 3 semester hours**

Same as INTL BUS 6581. Prerequisite: FINANCE 6500. The objective of this course is to introduce students to financial issues for multinational firms. Besides covering basic tools and techniques, the class stresses the role of the financial manager in analysis and decision-making. Topics include the impact of international accounting and tax issues, capital budgeting in a foreign environment, transfer pricing, and global funding. Conceptual skills for lifelong learning experiences are emphasized. This course employs a lecture and case format with group discussions.

**FINANCE 6581 Seminar In International Investments: 3 semester hours**

Same as INTL BUS 6581. Prerequisite: FINANCE 6500 This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the comprehensive project report. A prior investments course is recommended but not required.

**FINANCE 6582 International Bank Management: 3 semester hours**

Prerequisites: FINANCE 6500. The objective of this course is to introduce students to many challenging issues in international bank management. This is a specialized finance course dealing explicitly with global bank decision-makings of a multinational bank that uses a variety of financial tools and skills. The course will discuss the rapidly blurring distinctions between commercial and investment bankers. Conceptual skills for life-learning (evolving) experiences relevant to the global banking sector are emphasized.

**FINANCE 6590 Seminar In Finance: 3 semester hours**

Prerequisites: FINANCE 6500 This course incorporates a wide range of advanced topics in finance including, but not limited to, an evaluation of various financial assets as investment opportunities, trends in capital markets, derivatives and management of financial and non-financial firms.

**FINANCE 6591 Finance Internship: 1-3 semester hours**

Prerequisites: Students must have completed and/or be enrolled in at least 6 credit hours of finance electives and have consent of supervising faculty member and Area Coordinator Students work in the field of finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining sopecialized work experience are the primary goals. The student's program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project.

## Courses

**FINANCE 1590 Personal Finance For Nonbusiness Majors: 3 semester hours**

For future professionals who want to learn more about personal finance and how to better manage their resources. The topics include purchasing/leasing cars, home acquisitions, investing in stocks and bonds, mutual funds, retirement planning and health and life insurance. Special emphasis will be on the nontechnical aspects of these issues. Cannot be used for credit in BSBA program.

**FINANCE 3500 Financial Management: 3 semester hours**

Prerequisites: ECON 1002, MATH 1105, and ACCTNG 2400 and a 2.0 overall GPA. The study of a firm's need for funds; the institutions, instruments and markets concerned with raising funds; and the techniques of analysis used to determine how effectively these funds, once raised, are invested within the firm.

**FINANCE 3501 Financial Policies: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. The intensification and application of the concepts developed in FINANCE 3500. Special emphasis is given to the development of top management policies and their application toward complex problems of finance. Techniques for identifying and dealing with these problems before they become acute will be investigated. Cases will be integrated with appropriate outside reading.

**FINANCE 3502 Treasury Management: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. The focus of this course is on the role cash management plays in corporate finance. Topics include cash collection and payment systems, forecasting cash flows, electronic fund transfers, check processing, international cash management and managing bank relationships. Students passing the course with a grade of A or B are permitted to take the qualifying exam to become a Certified Cash Manager (CCM) under a special arrangement with the Treasury Management Association. Along with other finance courses, this class prepares students for careers in the Treasury Departments of major companies or with service providers like banks.

**FINANCE 3503 Computer Applications In Finance: 3 semester hours**

Prerequisite: INFSYS 1800, FINANCE 3500, one 3000-level finance course and a 2.0 overall GPA. Financial problem solving and applications on the micro-computer . A project oriented course with an emphasis on micro based finance projects: Present value/IRR analysis, duration, immunization, portfolio optimization, leasing, capital budgeting, financial forecasting, options and futures.

**FINANCE 3520 Investments: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. Financial analysis of debt and equity instruments available on organized exchanges and in less tangible "over the counter" markets. Techniques of such analysis being presented in context with economic and management circumstances within the company, industry and economy.

**FINANCE 3521 Financial Engineering: Applying Derivatives: 3 semester hours**

Prerequisites: FINANCE 3500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 3520) prior to enrolling in FINANCE 3521.

**FINANCE 3523 Fixed Income Analysis: 3 semester hours**

Prerequisites: FINANCE 3500. This course explores key issues in fixed income securities. The topics include pricing of bonds, measuring bond yields, bond price volatility, factors affecting yields and the term structure of interest rates, treasury securities, corporate debt instruments, residential mortgage loans, collateralized mortgage/debt obligation, and analysis of bonds with embedded options. The course prepares students for the CFA exams of Level 1 in the area of fixed income analysis.

**FINANCE 3525 Practicum In Investments: 1 semester hour**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. Students will apply their knowledge of stocks and bonds by managing a real dollar portfolio of securities. This course requires that students perform technical and fundamental analysis, prepare research reports, present proposals and participate in group investment decisions. The University's Student Investment Trust provides the money for students to invest. Course may be repeated for credit up to a maximum of 3 credit hours.

**FINANCE 3540 Introduction to Financial Institutions and Financial Markets: 3 semester hours**

Prerequisite: FINANCE 3500 and a 2.0 overall GPA. The course surveys financial institutions and financial markets and addresses the interplay between institutions and markets. State and federal regulation of institutions and markets is explored. A portion of the course addresses current events, managerial policy issues, and regulatory issues in financial services and markets. Focus is primarily U.S. institutions and markets, but the evolving impact of globalization and importance of the Foreign Exchange Market on U. S. financial institutions are developed.

**FINANCE 3541 Commercial Bank Management: 3 semester hours**

Prerequisites: ECON 1002, FINANCE 3500 and a 2.0 overall GPA. Corporate finance and microeconomics are applied to matters of importance to commercial bankers. Among the subjects treated are bank-asset portfolio construction, lending policies, liabilities management, bank capital structure, short-run cash management, financial market rates and flows, and quantitative models for bank management. Commercial bank management is analyzed from an internal viewpoint in terms of what bank managers should look for in asset management and why; what market conditions they should be aware of; and what techniques they can use to meet changing economic and financial conditions.

**FINANCE 3542 Principles Of Real Estate: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. As an introduction to the real estate industry, the course broadly explores all phases of acquisition, development and disposal of real property. Topics include legal requirements of contracts, property rights, valuation and appraisal techniques, marketing, brokerage operations and practices, mortgage financing, leasing and property management.

**FINANCE 3560 Practice Of Personal Financial Planning: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. Professional financial planning requires broad knowledge of investments, insurance, income taxation, retirement planning, and estate planning, as well as certification requirements and legal/ethical issues. This course introduces students to the field of financial planning, and provides an integrated overview of the topics listed above. Students interested in the Financial Planning track are encouraged to complete this course prior to taking other courses in the track.

**FINANCE 3561 Principles Of Insurance: 3 semester hours**

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This is a survey course intended to introduce students to the basic concepts of insurance. Topics include the nature of risks, types of insurance carriers and markets, insurance contracts and policies, property and casualty coverages, life and health insurance, and government regulations. The functions of underwriting, setting premiums, risk analysis, loss prevention, and financial administration of carriers are emphasized.

**FINANCE 3562 Life Insurance And Employee Benefits: 3 semester hours**

Prerequisites: FINANCE 3500 or equivalent and a minimum campus GPA of 2.0 This course explores the life insurance business from the perspective of both the consumer and provider. Coverage will include an analysis of the various types of life insurance products, aspects of life insurance evaluation, reinsurance, underwriting, and uses of life insurance in financial planning. Also included is an examination of the tax, legal, and ethical requirements.

**FINANCE 3563 Retirement Planning And Employee Benefits: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator The course is designed to give students an understanding of the retirement planning process. Students will gain an appreciation of the usefulness (and shortcomings) of employee benefits and develop an ability to counsel others on important retirement and employee benefit decisions. Corporate pension and profit sharing plans, self-employed Keough plans, IRA's, annuities, health insurance, and social security will be discussed.

**FINANCE 3564 Estate Planning And Trusts: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator This course will focus on the responsibility of a financial planner in the formulation and implementation of an estate plan. Topics include wills, lifetime transfers, trusts, gifts, estate reduction techniques, tax implications in estate planning, business and inter-family transfers, dealing with incompetency, postmortem techniques, and the role of fiduciaries. Lectures, cases, and guest speakers will be used to stimulate analysis and discussion.

**FINANCE 3565 Seminar in Financial Planning: 3 semester hours**

Prerequisites: ACCTNG 3441, FINANCE 3520, FINANCE 3560, FINANCE 3561, FINANCE 3563, and FINANCE 3564; a minimum campus GPA of 2.0; or permission of instructor. This course serves as the capstone in the registered Financial Planning curriculum. Students will prepare and present comprehensive, professional-level personal financial plans. This course is required by the Certified Financial Planner Board of Standards for those who wish to sit for the Certified Financial Planner examination.

**FINANCE 3580 International Corporate Finance: 3 semester hours**

Same as INTL BUS 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This course explores corporate finance in the context of a global environment. Financial managers for an international firm must deal with all the normal problems faced by domestic corporations plus additional foreign exchange and political risks. Class discussions will focus on applying financial techniques to decision making in foreign operations. Students are required to work in a group to undertake a project related to international finance.

**FINANCE 3582 International Investments: 3 semester hours**

Same as INTL BUS 3582. Prerequisites: FINANCE 3500. This course explores the concepts of investing and hedging risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.

**FINANCE 3590 Internship In Finance: 1-3 semester hours**

Prerequisite: a minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of finance electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience in a Track area are the primary goals. The student's program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project. FINANCE 3590 may not be counted toward the minimum 15 credit hours of finance electives for a finance emphasis.

**FINANCE 3595 Special Administration Problems - Finance: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**FINANCE 3598 Seminar in Finance: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of finance. May be repeated for credit with different topics.



**FINANCE 3599 Independent Study In Finance: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in finance under the supervision of a full-time finance faculty member.

**FINANCE 5599 Individual Research in Finance: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Finance under the guidance of a specific professor.

**FINANCE 6500 Financial Management: 3 semester hours**

Prerequisites: ACCTNG 5400 or ACCTNG 2400, LOG OM 5300 or LOG OM 3300, and BUS AD 5000 or ECON 1001 and ECON 1002. This course provides an in-depth analysis of corporate finance including asset pricing, risk and return, short- and long-term investment decisions, capital structure choices, dividend policy, derivatives, mergers and acquisitions, and a host of other current topics. The material is taught through lectures and problem solving.

**FINANCE 6501 Advanced Financial Management: 3 semester hours**

Prerequisite: FINANCE 6500 and LOG OM 5300. Exposure to recent financial management theory through selected readings. Financial management problems are considered by the use of cases and simulation models. An original research project under the supervision of instructor is required.

**FINANCE 6520 Security Analysis: 3 semester hours**

Prerequisite: FINANCE 6500 and LOG OM 5300 An in-depth study of techniques used in evaluating various financial assets as investment opportunities. Financial assets studied include common stock, preferred stock, and fixed income securities. Other related topics such as sources of investment information and current market trends are discussed.

**FINANCE 6521 Financial Forensics: The Science of Derivatives: 3 semester hours**

Prerequisites: FINANCE 6500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 6520) prior to enrolling in FINANCE 6521.

**FINANCE 6540 Financial Institutions and Financial Markets: 3 semester hours**

Prerequisite: Graduate Status and FINANCE 6500. By lecture and casework, the course surveys markets (Money Market, Capital Markets, Foreign Exchange) and various forms of financial institutions. Historical and evolving business models of financial institutions are explored in the context of regulation, economics, and competition. Interplay between institutions and markets is addressed. Structure and purpose of regulation is examined. A portion of the course involves current events and managerial policy issues in financial services. A major U.S. financial institution is selected and case analyzed by the class. Focus is U.S. institutions and markets, but impact of globalization is discussed.

**FINANCE 6541 Commercial Bank Management: 3 semester hours**

Prerequisite: FINANCE 6500. This course explores the various bank management techniques required to manage a modern commercial bank in a rapidly changing environment. Topics include asset and liability management, capital adequacy, bank holding companies, profitability, and bank market structure and regulation.

**FINANCE 6542 Real Estate: 3 semester hours**

Prerequisite: FINANCE 6500 This course provides a broad introduction to real estate with a focus on legal issues, market analysis, valuation, financing, leasing and investment decisions. Classes are conducted in a standard lecture format with discussion on current topics. No prior knowledge of the industry is required.

**FINANCE 6580 International Financial Management: 3 semester hours**

Same as INTL BUS 6581. Prerequisite: FINANCE 6500. The objective of this course is to introduce students to financial issues for multinational firms. Besides covering basic tools and techniques, the class stresses the role of the financial manager in analysis and decision-making. Topics include the impact of international accounting and tax issues, capital budgeting in a foreign environment, transfer pricing, and global funding. Conceptual skills for lifelong learning experiences are emphasized. This course employs a lecture and case format with group discussions.

**FINANCE 6581 Seminar In International Investments: 3 semester hours**

Same as INTL BUS 6581. Prerequisite: FINANCE 6500 This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the comprehensive project report. A prior investments course is recommended but not required.

**FINANCE 6582 International Bank Management: 3 semester hours**

Prerequisites: FINANCE 6500. The objective of this course is to introduce students to many challenging issues in international bank management. This is a specialized finance course dealing explicitly with global bank decision-makings of a multinational bank that uses a variety of financial tools and skills. The course will discuss the rapidly blurring distinctions between commercial and investment bankers. Conceptual skills for life-learning (evolving) experiences relevant to the global banking sector are emphasized.

**FINANCE 6590 Seminar In Finance: 3 semester hours**

Prerequisites: FINANCE 6500 This course incorporates a wide range of advanced topics in finance including, but not limited to, an evaluation of various financial assets as investment opportunities, trends in capital markets, derivatives and management of financial and non-financial firms.

**FINANCE 6591 Finance Internship: 1-3 semester hours**

Prerequisites: Students must have completed and/or be enrolled in at least 6 credit hours of finance electives and have consent of supervising faculty member and Area Coordinator Students work in the field of finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining sopecialized work experience are the primary goals. The student's program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project.

## French

## Courses

### **FRENCH 1001 French Language and Culture I: 5 semester hours**

Students will develop communicative skills in French, including listening, speaking, reading, and writing. Introduction to Francophone culture through discussion of readings and visual media. Intended for students with no previous French experience. Students with previous French experience are expected to.

### **FRENCH 1002 French Language and Culture II: 5 semester hours**

Prerequisite: FRENCH 1001 or equivalent. Students will continue to develop communicative skills in French, including listening, speaking, reading, and writing. Continued exploration of Francophone culture through discussion of readings and visual media.

### **FRENCH 2101 Intermediate French Language And Culture I: 3 semester hours**

Prerequisites: FRENCH 1002 or equivalent. Students will advance their understanding of Francophone cultures through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction.

### **FRENCH 2115A Intensive French: 5 semester hours**

Prerequisite: Special Consent Required. An intensive study of French language and culture. Students will develop communicative skills, including listening, speaking, reading, and writing. Completion of the course with a grade of C- or better will satisfy the foreign language requirement of the B.A. degree. Students who have successfully completed FRENCH 2115A, FRENCH 2115B, and FRENCH 2115C this course may advance to FRENCH 2170 and FRENCH 2180.

### **FRENCH 2115B Intensive French: 5 semester hours**

Prerequisite: Special Consent Required. An intensive study of French language and culture. Students will develop communicative skills, including listening, speaking, reading, and writing. Completion of the course with a grade of C- or better will satisfy the foreign language requirement of the B.A. degree. Students who have successfully completed FRENCH 2115A, FRENCH 2115B, and FRENCH 2115C this course may advance to FRENCH 2170 and FRENCH 2180.

### **FRENCH 2115C Intensive French: 3 semester hours**

Prerequisite: Special Consent Required. An intensive study of French language and culture. Students will develop communicative skills, including listening, speaking, reading, and writing. Completion of the course with a grade of C- or better will satisfy the foreign language requirement of the B.A. degree. Students who have successfully completed FRENCH 2115A, FRENCH 2115B, and FRENCH 2115C this course may advance to FRENCH 2170 and FRENCH 2180.

### **FRENCH 2170 Intermediate French Language And Culture: 3 semester hours**

Prerequisites: FRENCH 2101 or equivalent. Students will continue to advance in their development of the four language skills through meaningful communicative interaction. Students will further advance their understanding of Francophone culture. This course should be taken concurrently with FRENCH 2180.

### **FRENCH 2180 Readings In French: 3 semester hours**

Prerequisite: FRENCH 2101 or equivalent. This course will introduce students to a variety of literary and non-literary texts in French. This course should be taken concurrently with FRENCH 2170.

### **FRENCH 2190 Special Readings In French: 1-3 semester hours**

Prerequisite: FRENCH 2101 and consent of the department. Independent study on mutually acceptable topics through readings, reports, and conferences.

### **FRENCH 2199 Special Topics: Language Immersion: French: 1-3 semester hours**

Prerequisite: FRENCH 2101 or consent of instructor. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit provided that the topic is different.

### **FRENCH 3200 French Grammar in Review: 3 semester hours**

Prerequisite: FRENCH 2170 and FRENCH 2180. This course is designed to increase students' ability to communicate clearly and effectively through study and practice of forms and structures of the French language. Strong emphasis in writing.

### **FRENCH 3205 French in Commerce and Media: 3 semester hours**

Prerequisite: FRENCH 2170 and FRENCH 2180. Professional and practical applications of French in commerce and media, including conventions of correspondence, business etiquette, and travel.

### **FRENCH 3211 Contemporary French Culture: 3 semester hours**

Prerequisites: FRENCH 2170 and FRENCH 2180. Aspects of contemporary French culture, including history, geography, education, politics, and gastronomy, studied through a variety of authentic cultural materials.

### **FRENCH 3271 Intermediate French Conversation: 3 semester hours**

Prerequisite: FRENCH 2170 or consent of the instructor. Emphasis will be placed upon the further development of communicative skills in French.

### **FRENCH 3280 French Literature and Culture to 1800: 3 semester hours**

Prerequisites: FRENCH 2170 and FRENCH 2180. Designed to acquaint students with French literature and culture from the Middle Ages through the eighteenth century.

### **FRENCH 3281 French Literature and Culture After 1800: 3 semester hours**

Prerequisites: FRENCH 2170 and FRENCH 2180. Designed to acquaint students with French literature and culture from the nineteenth century to the present.

### **FRENCH 3290 Special Readings: 1-3 semester hours**

Prerequisite: Consent of department. Independent study through readings, reports and conferences.

### **FRENCH 4300 Advanced Grammar & Stylistics: 3 semester hours**

Prerequisite: FRENCH 3200 or equivalent. This course is designed to improve students' writing skills through advanced study of modern French prose style.

### **FRENCH 4311 Special Topics In French Culture and Literature: 3 semester hours**

Prerequisites: Three French courses at the 3000 level or above. Selected topics in French/Francophone culture and literature. This course may be repeated for credit provided the topic is different each time.

### **FRENCH 4350 Studies in Eighteenth-Century French Literature and Culture: 3 semester hours**

Prerequisite: FRENCH 3280 or FRENCH 3281. A study of eighteenth-century French literature and culture. Topics may include the philosophic movement, the French Revolution, and representative novels and plays.

### **FRENCH 4360 Studies in Nineteenth-Century French Literature and Culture: 3 semester hours**

Prerequisite: FRENCH 3280 or FRENCH 3281. A study of nineteenth-century French literature and culture. Topics may include romanticism, realism, symbolism, and impressionism.

**FRENCH 4370 Studies in Twentieth-Century French Literature and Culture: 3 semester hours**

Prerequisite: FRENCH 3280 or FRENCH 3281. A study of twentieth-century French literature and culture. Topics may include surrealism, existentialism, the influence of the world wars, post-colonialism, and cinema.

**FRENCH 4380 Studies in Twenty-First-Century French Literature and Culture: 3 semester hours**

Prerequisites: FRENCH 3280 or FRENCH 3281. A study of twenty-first-century French literature and culture. Topics may include literature, media, and culture since 2000.

**FRENCH 4390 Advanced Independent Study: 1-3 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports and discussions.

**FRENCH 4399 French Seminar: 3 semester hours**

Prerequisite: FRENCH 3280 or FRENCH 3281. Specialized topic in French literature. Subject to be announced by instructor in charge of seminar.

**FRENCH 5311 Advanced Topics in French Culture and Literature: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Selected topics in French/Francophone culture and literature. This course may be repeated for credit provided the topic is different each time. Students will be expected to conduct an independent research project.

## Courses

**FRENCH 1001 French Language and Culture I: 5 semester hours**

Students will develop communicative skills in French, including listening, speaking, reading, and writing. Introduction to Francophone culture through discussion of readings and visual media. Intended for students with no previous French experience. Students with previous French experience are expected to.

**FRENCH 1002 French Language and Culture II: 5 semester hours**

Prerequisite: FRENCH 1001 or equivalent. Students will continue to develop communicative skills in French, including listening, speaking, reading, and writing. Continued exploration of Francophone culture through discussion of readings and visual media.

**FRENCH 2101 Intermediate French Language And Culture I: 3 semester hours**

Prerequisites: FRENCH 1002 or equivalent. Students will advance their understanding of Francophone cultures through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction.

**FRENCH 2115A Intensive French: 5 semester hours**

Prerequisite: Special Consent Required. An intensive study of French language and culture. Students will develop communicative skills, including listening, speaking, reading, and writing. Completion of the course with a grade of C- or better will satisfy the foreign language requirement of the B.A. degree. Students who have successfully completed FRENCH 2115A, FRENCH 2115B, and FRENCH 2115C this course may advance to FRENCH 2170 and FRENCH 2180.

**FRENCH 2115B Intensive French: 5 semester hours**

Prerequisite: Special Consent Required. An intensive study of French language and culture. Students will develop communicative skills, including listening, speaking, reading, and writing. Completion of the course with a grade of C- or better will satisfy the foreign language requirement of the B.A. degree. Students who have successfully completed FRENCH 2115A, FRENCH 2115B, and FRENCH 2115C this course may advance to FRENCH 2170 and FRENCH 2180.

**FRENCH 2115C Intensive French: 3 semester hours**

Prerequisite: Special Consent Required. An intensive study of French language and culture. Students will develop communicative skills, including listening, speaking, reading, and writing. Completion of the course with a grade of C- or better will satisfy the foreign language requirement of the B.A. degree. Students who have successfully completed FRENCH 2115A, FRENCH 2115B, and FRENCH 2115C this course may advance to FRENCH 2170 and FRENCH 2180.

**FRENCH 2170 Intermediate French Language And Culture: 3 semester hours**

Prerequisites: FRENCH 2101 or equivalent. Students will continue to advance in their development of the four language skills through meaningful communicative interaction. Students will further advance their understanding of Francophone culture. This course should be taken concurrently with FRENCH 2180.

**FRENCH 2180 Readings In French: 3 semester hours**

Prerequisite: FRENCH 2101 or equivalent. This course will introduce students to a variety of literary and non-literary texts in French. This course should be taken concurrently with FRENCH 2170.

**FRENCH 2190 Special Readings In French: 1-3 semester hours**

Prerequisite: FRENCH 2101 and consent of the department. Independent study on mutually acceptable topics through readings, reports, and conferences.

**FRENCH 2199 Special Topics: Language Immersion: French: 1-3 semester hours**

Prerequisite: FRENCH 2101 or consent of instructor. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit provided that the topic is different.

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Prerequisite: FRENCH 2170 and FRENCH 2180. This course is designed to increase students' ability to communicate clearly and effectively through study and practice of forms and structures of the French language. Strong emphasis in writing.

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Prerequisite: FRENCH 2170 and FRENCH 2180. Professional and practical applications of French in commerce and media, including conventions of correspondence, business etiquette, and travel.

**FRENCH 3211 Contemporary French Culture: 3 semester hours**

Prerequisites: FRENCH 2170 and FRENCH 2180. Aspects of contemporary French culture, including history, geography, education, politics, and gastronomy, studied through a variety of authentic cultural materials.

**FRENCH 3271 Intermediate French Conversation: 3 semester hours**

Prerequisite: FRENCH 2170 or consent of the instructor. Emphasis will be placed upon the further development of communicative skills in French.



**FRENCH 3280 French Literature and Culture to 1800: 3 semester hours**

Prerequisites: FRENCH 2170 and FRENCH 2180. Designed to acquaint students with French literature and culture from the Middle Ages through the eighteenth century.

**FRENCH 3281 French Literature and Culture After 1800: 3 semester hours**

Prerequisites: FRENCH 2170 and FRENCH 2180. Designed to acquaint students with French literature and culture from the nineteenth century to the present.

**FRENCH 3290 Special Readings: 1-3 semester hours**

Prerequisite: Consent of department. Independent study through readings, reports and conferences.

**FRENCH 4300 Advanced Grammar & Stylistics: 3 semester hours**

Prerequisite: FRENCH 3200 or equivalent. This course is designed to improve students' writing skills through advanced study of modern French prose style.

**FRENCH 4311 Special Topics In French Culture and Literature: 3 semester hours**

Prerequisites: Three French courses at the 3000 level or above. Selected topics in French/Francophone culture and literature. This course may be repeated for credit provided the topic is different each time.

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Prerequisite: FRENCH 3280 or FRENCH 3281. A study of eighteenth-century French literature and culture. Topics may include the philosophic movement, the French Revolution, and representative novels and plays.

**FRENCH 4360 Studies in Nineteenth-Century French Literature and Culture: 3 semester hours**

Prerequisite: FRENCH 3280 or FRENCH 3281. A study of nineteenth-century French literature and culture. Topics may include romanticism, realism, symbolism, and impressionism.

**FRENCH 4370 Studies in Twentieth-Century French Literature and Culture: 3 semester hours**

Prerequisite: FRENCH 3280 or FRENCH 3281. A study of twentieth-century French literature and culture. Topics may include surrealism, existentialism, the influence of the world wars, post-colonialism, and cinema.

**FRENCH 4380 Studies in Twenty-First-Century French Literature and Culture: 3 semester hours**

Prerequisites: FRENCH 3280 or FRENCH 3281. A study of twenty-first-century French literature and culture. Topics may include literature, media, and culture since 2000.

**FRENCH 4390 Advanced Independent Study: 1-3 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports and discussions.

**FRENCH 4399 French Seminar: 3 semester hours**

Prerequisite: FRENCH 3280 or FRENCH 3281. Specialized topic in French literature. Subject to be announced by instructor in charge of seminar.

**FRENCH 5311 Advanced Topics in French Culture and Literature: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Selected topics in French/Francophone culture and literature. This course may be repeated for credit provided the topic is different each time. Students will be expected to conduct an independent research project.

# Geography

## Courses

**GEOG 1001 Introduction To Geography: 3 semester hours**

An introduction to geography as a social science. The identification and explanation of order in the human landscape. A survey of the social, political, economic, and psychological factors which influence geographic patterns.

**GEOG 1002 World Regions: 3 semester hours**

Survey of the major regions of the world. Designed to give the student an awareness of the character of each of these major regions through the interrelationships of the various attributes of place. Each semester the geographic perspective will be applied in greater depth to one significant country such as Afghanistan, Iraq, or North Korea.

**GEOG 2001 Cultural Geography: 3 semester hours**

This course examines the effect of geography on culture and cultural groups. Essential to the geographic perspective is identifying the effect on cultures of the current trend toward increasing globalization. Topics include language, religion, attitudes, and the effect of technology. The major goals are to increase awareness of the diversity of human cultures and to prepare students for a world of increasing intercultural communication and conflict. Satisfies cultural diversity.

**GEOG 4900 Advanced Readings in Geography: 3 semester hours**

Prerequisite: Consent of Instructor. This course will provide a more in-depth analysis of the various factors which influence geographic patterns employing methods appropriate to graduate level instruction. The topic selected will vary from semester to semester. This course may be taken for credit more than once as long as the topic discussed in each semester is different.

## Courses

**GEOG 1001 Introduction To Geography: 3 semester hours**

An introduction to geography as a social science. The identification and explanation of order in the human landscape. A survey of the social, political, economic, and psychological factors which influence geographic patterns.

**GEOG 1002 World Regions: 3 semester hours**

Survey of the major regions of the world. Designed to give the student an awareness of the character of each of these major regions through the interrelationships of the various attributes of place. Each semester the geographic perspective will be applied in greater depth to one significant country such as Afghanistan, Iraq, or North Korea.

**GEOG 2001 Cultural Geography: 3 semester hours**

This course examines the effect of geography on culture and cultural groups. Essential to the geographic perspective is identifying the effect on cultures of the current trend toward increasing globalization. Topics include language, religion, attitudes, and the effect of technology. The major goals are to increase awareness of the diversity of human cultures and to prepare students for a world of increasing intercultural communication and conflict. Satisfies cultural diversity.

**GEOG 4900 Advanced Readings in Geography: 3 semester hours**

Prerequisite: Consent of Instructor. This course will provide a more in-depth analysis of the various factors which influence geographic patterns employing methods appropriate to graduate level instruction. The topic selected will vary from semester to semester. This course may be taken for credit more than once as long as the topic discussed in each semester is different.



# Geology

## Courses

### **GEOL 1001 General Geology: 4 semester hours**

Earth materials and processes, including geological aspects of the resource/energy problem. Laboratory involves identification of common rocks and minerals.

### **GEOL 1001A General Geology: 4 semester hours**

Earth materials and processes, including geological aspects of the resource/energy problem. Laboratory involves identification of common rocks and minerals.

### **GEOL 1002 Historical Geology: 4 semester hours**

Study of changes in Geography, climate and life through geological time; origin of and continents oceans basins, and mountains in light of continental drift. Laboratory primarily involves description and identification of fossils. Three hours of lecture and two hours of lab.

### **GEOL 1002A Historical Geology Lecture: 3 semester hours**

Study of changes in geography, climate and life through geological time; origin of continents, ocean basins, and mountains in light of continental drift. Same as GEOL 1002 without the laboratory.

### **GEOL 1053 Oceanography: 3 semester hours**

The atmospheric and ocean circulations; the chemistry and geology of the deep sea; and their effects on the distribution of marine organisms.

## Courses

### **GEOL 1001 General Geology: 4 semester hours**

Earth materials and processes, including geological aspects of the resource/energy problem. Laboratory involves identification of common rocks and minerals.

### **GEOL 1001A General Geology: 4 semester hours**

Earth materials and processes, including geological aspects of the resource/energy problem. Laboratory involves identification of common rocks and minerals.

### **GEOL 1002 Historical Geology: 4 semester hours**

Study of changes in Geography, climate and life through geological time; origin of and continents oceans basins, and mountains in light of continental drift. Laboratory primarily involves description and identification of fossils. Three hours of lecture and two hours of lab.

### **GEOL 1002A Historical Geology Lecture: 3 semester hours**

Study of changes in geography, climate and life through geological time; origin of continents, ocean basins, and mountains in light of continental drift. Same as GEOL 1002 without the laboratory.

### **GEOL 1053 Oceanography: 3 semester hours**

The atmospheric and ocean circulations; the chemistry and geology of the deep sea; and their effects on the distribution of marine organisms.

# German

## Courses

### **GERMAN 1001 Beginning Language and Culture German I: 5 semester hours**

Introduction for students with little or no knowledge of German. Students will develop listening comprehension, speaking, reading, and writing skills and become familiar with the cultures and history of the German-speaking countries. The course is conducted mainly in German. GERMAN 1001, GERMAN 1002, and GERMAN 2101 together form the introductory German language sequence.

### **GERMAN 1002 Beginning Language and Culture: German II: 5 semester hours**

Prerequisite: GERMAN 1001 or equivalent. Students will continue to develop listening comprehension, speaking, reading, and writing skills and to become familiar with the cultures and history of the German-speaking countries. The course is conducted mainly in German. GERMAN 1001, GERMAN 1002, and GERMAN 2101 together form the introductory German language sequence.

### **GERMAN 2101 Intermediate Language And Culture: German III: 3 semester hours**

Prerequisites: GERMAN 1002 or equivalent. Students will advance their understanding of German-speaking cultures through discussions, readings, and written work. Through meaningful communicative interaction, students will further develop their language skills. The course is conducted mainly in German. GERMAN 1001, GERMAN 1002, and GERMAN 2101 together form the introductory German language sequence. Students who have successfully completed this course may advance to GERMAN 2170 or GERMAN 2180.

### **GERMAN 2170 Intermediate Practice in Speaking and Writing German: 3 semester hours**

Prerequisites: GERMAN 2101 or equivalent. In this course students will strengthen their communication skills and grammar in spoken and written German. Students will work with authentic literary texts, news articles, film, and music. GERMAN 2170 and GERMAN 2180 together form the bridge between the introductory German language sequence (GERMAN 1001, GERMAN 1002, and GERMAN 2101) and the advanced culture and literature courses. The course is conducted in German.

### **GERMAN 2180 Intermediate Readings In German: 3 semester hours**

Prerequisites: GERMAN 2101 or equivalent. In this course students will strengthen their communication skills and grammar in spoken and written German. Students will read and discuss authentic German texts. GERMAN 2170 and GERMAN 2180 together form the bridge between the introductory German language sequence (GERMAN 1001, GERMAN 1002, and GERMAN 2101) and the advanced culture and literature courses. The course is conducted in German.

### **GERMAN 2190 Intermediate Independent Study: 1-3 semester hours**

Prerequisite: GERMAN 2170 and GERMAN 2180, and consent of instructor and department. In consultation with the instructor, students undertake independent work to further develop intermediate German language skills and to deepen their knowledge of culture and history. The course is conducted in German.

### **GERMAN 2199 Special Topics: Language Immersion: 1 semester hour**

Prerequisites: GERMAN 1002. Faculty-led experience designed specifically to enhance acquisition of German language and culture. This course may be repeated for credit if the topics vary. The course is conducted in German.

**GERMAN 3201 Introduction to German Literature: 3 semester hours**

Prerequisite: Two years of college German or equivalent. Readings and critical analysis of selected works of literature written in the German language. This course is conducted in German.

**GERMAN 3202 Introduction to German Film: 3 semester hours**

Prerequisite: Two years of college German or equivalent. Viewings and critical analysis of selected films produced in the German language. The course is conducted in German.

**GERMAN 3208 The German-Speaking Countries in the Modern World: 3 semester hours**

Prerequisite: Two years of college German or equivalent; GERMAN 2170 or equivalent. A critical examination of issues in the culture and politics of the German-speaking countries since 1945 through a variety of media. The course is conducted in German.

**GERMAN 3210 German Culture And Civilization: 3 semester hours**

Prerequisite: Two years of college German or equivalent. A survey of the development of German culture and civilization and the emergence of a German identity. The course is conducted in German.

**GERMAN 3211 Topics in German Culture: 3 semester hours**

Prerequisites: Two years of college German or equivalent. Discussion of significant topics in German culture. This course may be repeated for credit if the topics vary. The course is conducted in German, or in English when cross-listed with another department.

**GERMAN 3280 German Literature and Culture I: Beginnings-Enlightenment: 3 semester hours**

Prerequisites: At least one 3000-level German course or consent of the instructor and department. This survey course will familiarize students with the development of German literature and culture through the end of the Enlightenment. Critical analysis of representative texts and other media. The course is conducted in German.

**GERMAN 3281 German Literature and Culture II: Romanticism - Present: 3 semester hours**

Prerequisites: At least one 3000-level German course or consent of instructor and department. This survey course will familiarize students with the development of German literature and culture from the end of the Enlightenment through the present day. Critical analysis of representative texts and other media. The course is conducted in German.

**GERMAN 3290 Advanced Independent Study I: 1-3 semester hours**

Prerequisite: GERMAN 3201, GERMAN 3202, GERMAN 3208, GERMAN 3210, and consent of instructor and department. In consultation with the instructor, students undertake independent work to transition from intermediate to advanced German language skills and to deepen their knowledge of culture and history. The course is conducted in German.

**GERMAN 4311 Special Topics In German Culture: 3 semester hours**

Prerequisites: At least two 3000 level German courses or consent of instructor and department. Discussion of significant topics in German culture. This course may be repeated for credit if the topics vary. The course is conducted in German, or in English when cross-listed with another department.

**GERMAN 4390 Advanced Independent Study II: 1-3 semester hours**

Prerequisite: GERMAN 3201, GERMAN 3202, GERMAN 3208, and GERMAN 3210, and consent of instructor and department. In consultation with the instructor, students undertake independent work to further develop advanced German language skills and to deepen their knowledge of culture and history. The course is conducted in German.

**GERMAN 4398 Survey Of German Literature Part II: 3 semester hours**

Prerequisite: GERMAN 3201 or GERMAN 3202. Special emphasis on the summary and synthesis of trends and characteristics of major periods in German literature considered in the general context of European culture.

**GERMAN 5311 Advanced Topics In German Culture: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor and department. Discussion of significant topics in German culture. This course may be repeated for credit if the topics vary. The course is conducted in German, or in English when cross-listed with another department.

## Courses

**GERMAN 1001 Beginning Language and Culture German I: 5 semester hours**

Introduction for students with little or no knowledge of German. Students will develop listening comprehension, speaking, reading, and writing skills and become familiar with the cultures and history of the German-speaking countries. The course is conducted mainly in German. GERMAN 1001, GERMAN 1002, and GERMAN 2101 together form the introductory German language sequence.

**GERMAN 1002 Beginning Language and Culture: German II: 5 semester hours**

Prerequisite: GERMAN 1001 or equivalent. Students will continue to develop listening comprehension, speaking, reading, and writing skills and to become familiar with the cultures and history of the German-speaking countries. The course is conducted mainly in German. GERMAN 1001, GERMAN 1002, and GERMAN 2101 together form the introductory German language sequence.

**GERMAN 2101 Intermediate Language And Culture: German III: 3 semester hours**

Prerequisites: GERMAN 1002 or equivalent. Students will advance their understanding of German-speaking cultures through discussions, readings, and written work. Through meaningful communicative interaction, students will further develop their language skills. The course is conducted mainly in German. GERMAN 1001, GERMAN 1002, and GERMAN 2101 together form the introductory German language sequence. Students who have successfully completed this course may advance to GERMAN 2170 or GERMAN 2180.

**GERMAN 2170 Intermediate Practice in Speaking and Writing German: 3 semester hours**

Prerequisites: GERMAN 2101 or equivalent. In this course students will strengthen their communication skills and grammar in spoken and written German. Students will work with authentic literary texts, news articles, film, and music. GERMAN 2170 and GERMAN 2180 together form the bridge between the introductory German language sequence (GERMAN 1001, GERMAN 1002, and GERMAN 2101) and the advanced culture and literature courses. The course is conducted in German.

**GERMAN 2180 Intermediate Readings In German: 3 semester hours**

Prerequisites: GERMAN 2101 or equivalent. In this course students will strengthen their communication skills and grammar in spoken and written German. Students will read and discuss authentic German texts. GERMAN 2170 and GERMAN 2180 together form the bridge between the introductory German language sequence (GERMAN 1001, GERMAN 1002, and GERMAN 2101) and the advanced culture and literature courses. The course is conducted in German.

**GERMAN 2190 Intermediate Independent Study: 1-3 semester hours**

Prerequisite: GERMAN 2170 and GERMAN 2180, and consent of instructor and department. In consultation with the instructor, students undertake independent work to further develop intermediate German language skills and to deepen their knowledge of culture and history. The course is conducted in German.

**GERMAN 2199 Special Topics: Language Immersion: 1 semester hour**

Prerequisites: GERMAN 1002. Faculty-led experience designed specifically to enhance acquisition of German language and culture. This course may be repeated for credit if the topics vary. The course is conducted in German.

**GERMAN 3201 Introduction to German Literature: 3 semester hours**

Prerequisite: Two years of college German or equivalent. Readings and critical analysis of selected works of literature written in the German language. This course is conducted in German.

**GERMAN 3202 Introduction to German Film: 3 semester hours**

Prerequisite: Two years of college German or equivalent. Viewings and critical analysis of selected films produced in the German language. The course is conducted in German.

**GERMAN 3208 The German-Speaking Countries in the Modern World: 3 semester hours**

Prerequisite: Two years of college German or equivalent; GERMAN 2170 or equivalent. A critical examination of issues in the culture and politics of the German-speaking countries since 1945 through a variety of media. The course is conducted in German.

**GERMAN 3210 German Culture And Civilization: 3 semester hours**

Prerequisite: Two years of college German or equivalent. A survey of the development of German culture and civilization and the emergence of a German identity. The course is conducted in German.

**GERMAN 3211 Topics in German Culture: 3 semester hours**

Prerequisites: Two years of college German or equivalent. Discussion of significant topics in German culture. This course may be repeated for credit if the topics vary. The course is conducted in German, or in English when cross-listed with another department.

**GERMAN 3280 German Literature and Culture I: Beginnings-Enlightenment: 3 semester hours**

Prerequisites: At least one 3000-level German course or consent of the instructor and department. This survey course will familiarize students with the development of German literature and culture through the end of the Enlightenment. Critical analysis of representative texts and other media. The course is conducted in German.

**GERMAN 3281 German Literature and Culture II: Romanticism - Present: 3 semester hours**

Prerequisites: At least one 3000-level German course or consent of instructor and department. This survey course will familiarize students with the development of German literature and culture from the end of the Enlightenment through the present day. Critical analysis of representative texts and other media. The course is conducted in German.

**GERMAN 3290 Advanced Independent Study I: 1-3 semester hours**

Prerequisite: GERMAN 3201, GERMAN 3202, GERMAN 3208, GERMAN 3210, and consent of instructor and department. In consultation with the instructor, students undertake independent work to transition from intermediate to advanced German language skills and to deepen their knowledge of culture and history. The course is conducted in German.

**GERMAN 4311 Special Topics In German Culture: 3 semester hours**

Prerequisites: At least two 3000 level German courses or consent of instructor and department. Discussion of significant topics in German culture. This course may be repeated for credit if the topics vary. The course is conducted in German, or in English when cross-listed with another department.

**GERMAN 4390 Advanced Independent Study II: 1-3 semester hours**

Prerequisite: GERMAN 3201, GERMAN 3202, GERMAN 3208, and GERMAN 3210, and consent of instructor and department. In consultation with the instructor, students undertake independent work to further develop advanced German language skills and to deepen their knowledge of culture and history. The course is conducted in German.

**GERMAN 4398 Survey Of German Literature Part II: 3 semester hours**

Prerequisite: GERMAN 3201 or GERMAN 3202. Special emphasis on the summary and synthesis of trends and characteristics of major periods in German literature considered in the general context of European culture.

**GERMAN 5311 Advanced Topics In German Culture: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor and department. Discussion of significant topics in German culture. This course may be repeated for credit if the topics vary. The course is conducted in German, or in English when cross-listed with another department.

## Gerontology

### Courses

**GERON 1220 Special Topics In Gerontology: 3 semester hours**

Same as INTDSC 1220 Selected topics dealing with various aspects of gerontology. The specific contents of this course will vary from semester to semester. The course may be repeated with permission from the Gerontology director.

**GERON 2256 Bioethics: 3 semester hours**

Same as PHIL 2256. An examination of ethical issues in health care practice and clinical research and in public policies affecting health care. Topics include: abortion, euthanasia, health care, experimentation, informed consent and the right to health care.

**GERON 2272 Developmental Psychology: Adulthood And Aging: 3 semester hours**

Same as PSYCH 2272. Prerequisites: PSYCH 1003. Personality social and physiological development from the onset of early adulthood through maturity and old age.

**GERON 2280 Psychology Of Death And Dying: 3 semester hours**

Same as PSYCH 2280. Prerequisite: PSYCH 1003. A beginning exploration of end-of-life issues integrating the scholarly, social, and individual dimensions of death and dying. This course provides a solid grounding in theory and research, as well as practical application to students' lives.

**GERON 3215 Aging Across Cultures: 3 semester hours**

Same as ANTHRO 3215. Prerequisites: ANTHRO 1011 or PSYCH 1003 or SOC 1010, or consent of instructor. This course examines the wideranging variability in the roles of older people across different cultures and the effects these have on older people, their families, and their societies.

**GERON 4361 Social Gerontology: 3 semester hours**

Same as SOC 4361. Prerequisites: SOC 1010 and junior standing or consent of instructor. Topics include: sociological theories of aging, technological and social change and its effects on the environment of older people, and prejudice and discrimination against the elderly.



**GERON 4376 Mental Health And Aging: 3 semester hours**

Same as PSYCH 4376 and SOC WK 4376. Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) This course provides a survey of theory and research in mental health issues for older populations, focusing on psychological and social aspects of mental health and impairment. The course details approaches to understanding prevalence, etiology, assessment, and treatment of the psychological disorders most commonly experienced by older adults, including anxiety, depression, delirium, and dementia, among others.

**GERON 4490 Directed Readings: 1-3 semester hours**

Prerequisites: Consent of instructor Directed reading and research or field work. May be repeated for a maximum of three hours.

**GERON 4680 Introduction to Gerontological Practice: 3 semester hours**

Same as SOC WK 4680. Prerequisites: Advanced undergraduate or graduate standing. This course introduces key concepts and practices in the evaluation and care of older adults. It is intended for students considering aging-focused careers in the social service or healthcare fields. Topics include developmental and health-related theories of aging, functional and psychosocial aspects of aging, working with older adults in various service settings, multi and interdisciplinary team approaches, and basic standards of professional conduct that apply across professions.

**GERON 4700 Successful Aging: Individual & Societal Perspectives: 3 semester hours**

This course addresses key components of successful aging including avoidance of disease, maintenance of good mental and physical function, and sustained engagement in life. Students become familiar with the different intra- and extra-personal determinants of successful aging and learn to distinguish between the concepts of successful and productive aging. Also discussed is the impact of societal, economic and political context on success in aging (e.g. health care delivery, entitlement programs, technology, globalization, volunteerism, and culture).

**GERON 5320 Gender & Aging: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. This course examines advancing age through a gender lens. Men and women experience aging differently based on a host of genetic, biological, psychological, sociocultural and personal identity factors. This course challenges students to consider aging from various perspectives, including cultural expectations and norms, couple and family relationships, health and function, work life and retirement, sexual orientation, gender identity, concerns of LGBT elders, and veteran's issues.

**GERON 5361 Advanced Social Gerontology: 3 semester hours**

Prerequisites: Graduate Standing. An examination of sociological theories of aging, technological and social change and its effects on the environment of older people, and prejudice and discrimination against the elderly.

**GERON 5376 Psychopathology And Aging: 3 semester hours**

Prerequisites: Graduate Standing Recent theory and research in mental health issues for older populations. The primary focus is on major psychological disorders prevalent among older adults and in assessment and treatment approaches for aging populations.

**GERON 5420 Research Methods and Analysis I: 3 semester hours**

Prerequisites: Admission to the MSG Program or graduate standing. The first of a two-course sequence designed to provide students with the knowledge base and skills for using the scientific method to advance gerontological knowledge, theory and evidence-based practice. Focuses on research methods employed in aging-related studies, with a special emphasis on the critical evaluation of academic studies and the evidentiary basis of key findings. Covers quantitative and qualitative approaches, research design, sampling procedures, measurement, use of results, impact of research, and ethical considerations.

**GERON 5440 Cultural Aspects Of Aging: 3 semester hours**

Same as ANTHRO 5440. Prerequisites: Graduate status or consent of the instructor. Focuses on the variety of solutions encountered in different sociocultural contexts for dealing with the problems, challenges and opportunities of growing old. It is organized around topics that are of concern to both anthropology and social gerontology: the status of the aged, intergenerational relations, aging in modernizing societies, ethnic dimensions of aging in complex societies, health in later life, death and dying. Both in-depth case studies and cross-cultural comparisons are examined in an effort to arrive at a culturally informed assessment of factors affecting aging and the aged in the United States.

**GERON 5450 Research Methods and Analysis II: 3 semester hours**

Prerequisites: GERON 5420 or equivalent. An advanced course focused on the framing and analysis of qualitative and quantitative data to advance gerontological knowledge, theory, and evidence-based practice. Students learn to use and interpret various statistical procedures for analyzing qualitative and quantitative data (including bivariate and multivariate analyses). Students apply various analytic techniques using computer software applications.

**GERON 5610 Mechanisms Of Aging I: The Aging Body: 1 semester hour**

Same as SOC WK 5610 and PSYCH 5610 Prerequisites: Graduate standing and BIOL 1102 or equivalent. (MSW students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social science/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

**GERON 5611 Mechanisms Of Aging II: The Aging Brain: 1 semester hour**

Same as SOC WK 5611 and PSYCH 5611. Prerequisites: GERON 5610 or SOC WK 5610 or PSYCH 5610 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

**GERON 5612 Mechanisms Of Aging III: Diseases Of Aging: 1 semester hour**

Same as SOC WK 5612 and PSYCH 5612. Prerequisites: GERON 5610 and GERON 5611 or SOC WK 5610 and SOC WK 5611 or PSYCH 5610 and PSYCH 5611 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background with information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.



**GERON 5620 Dying, Grief & Death in Older Adulthood: 3 semester hours**

Same as SOC WK 5620. Prerequisite: Six hours of graduate level gerontology, psychology, counseling and/or social work coursework, or special approval from the instructor. Undergraduates in their senior year may also request approval for entry from the Director of Gerontology. For those planning to work with older adults in counseling, healthcare, hospice, and/or community support settings. Will examine trajectories to death in older age, the dying process, influences of medical and aging-related conditions, euthanasia and suicide, life extension and longevity, personal beliefs and existential responses, how individuals and families cope, ethical concerns, and strategies for supportive intervention. Topics are addressed from clinical, supportive care, and interdisciplinary perspectives.

**GERON 6120 Theory and Practice with Older Adults: 3 semester hours**

Same as SOC WK 6120. Prerequisites: Graduate Standing. Examines theory and empirically-based assessment and intervention models for work with the elderly. It includes the life circumstances of older adults and how that differs from younger adult populations; how ethnicity, gender, social class, and sexual orientation interact with age and create special intervention issues; discussion of ethical and value issues (e.g. client autonomy, rationing of health care); examination of family and community resources in providing care; and interventions with physically or mentally disabled elders and elders in residential settings.

**GERON 6130 Interviewing Older Adults And Life Review: 3 semester hours**

Same as SOC WK 6130. Prerequisite: Graduate Standing. This course combines training in interviewing techniques with video editing/production. Students will learn how to conduct life review interviews with older adults, and then take these skills into the community by interviewing older adults living in various settings. Students will learn how to use a digital video camera and edit video clips on the computer. Student-conducted interviews will be viewed by the instructor and classmates, issues associated with aging will be discussed, and constructive feedback provided. Some of the video clips developed in the course will become part of an educational video clip library.

**GERON 6441 Aging And Health Behavior: 3 semester hours**

Same as PSYCH 6441. Prerequisite: Graduate standing. This course examines sociocultural influences on health care practices of older adults. The role of social support and other social resources in the health behavior of older adults is emphasized. Topics include self care decisions, formal service utilization, family caregiving, and planned interventions for older adults.

**GERON 6443 Health Care Policy: 3 semester hours**

Same as P P ADM 6430, POL SCI 6443, and SOC WK 6443. Prerequisites: Graduate standing or consent of instructor. Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

**GERON 6444 Seminar In Public Policy And Aging: 3 semester hours**

Same as P P ADM 6444, and POL SCI 6444. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include: housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

**GERON 6449 Issues In Retirement: 3 semester hours**

Prerequisites: Graduate standing. This course examines macro and micro issues of retirement in the United States--its processes, causes, and consequences--in relation to economic market conditions, demographic changes, and programs and policies that are targeted to support the elderly (e.g., Social Security). It also examines issues relating to older women and retirement.

**GERON 6450 Gerontological Assessment: 3 semester hours**

Same as SOC WK 6450. Prerequisite: Graduate standing. This course provides an overview of psychosocial assessment with older adults and their family caregivers. Major areas of gerontological assessment practice are considered, including dementia, mood disorders, suicide, grief, alcoholism, elder abuse/neglect, family caregiving, and interdisciplinary team issues.

**GERON 6460 Long Term Care Administration: 3 semester hours**

Prerequisite: Graduate Standing This course provides an overview of long term care programs and services for older adults. Administrative issues are reviewed, including patient services, state licensure requirements, human resource management, and reimbursement practices. Characteristics of well-functioning facilities are addressed, as well as consultation with families during the placement decision process.

**GERON 6470 Epidemiology of Aging: 3 semester hours**

Prerequisites: Graduate Standing. This course reviews the distribution and determinants of health-related conditions and functional concerns in older populations. An emphasis is placed on key concepts and methodological considerations for conducting epidemiological studies. Students learn about the epidemiology of selected diseases, syndromes and conditions common to older age, including various trajectories of physical and cognitive decline. Also discussed are the roles that epidemiological data play in the development of interventions to control and prevent age-related disease and inform public health decision-making and evidence-based geriatric practice.

**GERON 6490 Directed Study: 1-3 semester hours**

Prerequisite: Consent of Instructor. Designed to give the student an opportunity to pursue a more in-depth study of a problem area in gerontology than is normally covered in more formal courses. May be repeated for a total of six credit hours.

**GERON 6495 Practicum In Gerontology: 3 semester hours**

This course provides supervised work experience in an agency that serves older adults. Students are required to complete a minimum of 150 clock hours at the practicum site.

**GERON 6496 Advanced Practicum In Gerontology: 3 semester hours**

Prerequisites: GERON 6495 and consent of instructor This course provides advanced practicum experience beyond GERON 6495. Students must complete a minimum of 150 clock hours of supervised field work (service or research) with older adults.

**GERON 6497 Interdisciplinary Geriatric Care: 3 semester hours**

Prerequisites: Consent of instructor. Same as VIS SCI 6497. Interdisciplinary approaches that address the medical, social, instrumental and functional needs of older adults will be examined. Information about geriatric care management and social issues affecting the well-being of older adults will be provided. Clinical, theoretical, and educational perspectives will be presented.

**GERON 6498 Advanced Seminar In Gerontology: 3 semester hours**

Prerequisite: Graduate standing. This course will provide in-depth analysis of specialized topics in gerontology which are not covered in required courses. (Course may be repeated for a maximum of nine credits, assuming topics are different.).

**GERON 6499 Topics In Gerontology: 1-3 semester hours**

Prerequisite: Graduate standing. Analysis of a current problem in gerontology. (Course may be repeated for maximum of five credits, assuming topics are different.).

**GERON 6500 Practicum in Gerontological Research: 3 semester hours**

Prerequisites: GERON 6495 and consent of the instructor. A supervised social science research experience involving a combination of two or more of the following activities: literature review, hypothesis generation, study design and proposal, IRB application, participant recruitment, data collection, data management, data analysis, and report/article generation.

**GERON 6510 Directed Research in Aging: 1-3 semester hours**

Prerequisites: Consent of the instructor. Designed to give the student an opportunity to explore a question of interest from a qualitative and/or quantitative research perspective. This supervised experience may include one or more of the following activities (depending on enrolled hours): literature review, hypothesis generation, study design and proposal, IRB application, participant recruitment, data collection, data management, data analysis, and report/article generation.

## Courses

**GERON 1220 Special Topics In Gerontology: 3 semester hours**

Same as INTDSC 1220 Selected topics dealing with various aspects of gerontology. The specific contents of this course will vary from semester to semester. The course may be repeated with permission from the Gerontology director.

**GERON 2256 Bioethics: 3 semester hours**

Same as PHIL 2256. An examination of ethical issues in health care practice and clinical research and in public policies affecting health care. Topics include: abortion, euthanasia, health care, experimentation, informed consent and the right to health care.

**GERON 2272 Developmental Psychology: Adulthood And Aging: 3 semester hours**

Same as PSYCH 2272. Prerequisites: PSYCH 1003. Personality social and physiological development from the onset of early adulthood through maturity and old age.

**GERON 2280 Psychology Of Death And Dying: 3 semester hours**

Same as PSYCH 2280. Prerequisite: PSYCH 1003. A beginning exploration of end-of-life issues integrating the scholarly, social, and individual dimensions of death and dying. This course provides a solid grounding in theory and research, as well as practical application to students' lives.

**GERON 3215 Aging Across Cultures: 3 semester hours**

Same as ANTHRO 3215. Prerequisites: ANTHRO 1011 or PSYCH 1003 or SOC 1010, or consent of instructor. This course examines the wideranging variability in the roles of older people across different cultures and the effects these have on older people, their families, and their societies.

**GERON 4361 Social Gerontology: 3 semester hours**

Same as SOC 4361. Prerequisites: SOC 1010 and junior standing or consent of instructor. Topics include: sociological theories of aging, technological and social change and its effects on the environment of older people, and prejudice and discrimination against the elderly.

**GERON 4376 Mental Health And Aging: 3 semester hours**

Same as PSYCH 4376 and SOC WK 4376. Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) This course provides a survey of theory and research in mental health issues for older populations, focusing on psychological and social aspects of mental health and impairment. The course details approaches to understanding prevalence, etiology, assessment, and treatment of the psychological disorders most commonly experienced by older adults, including anxiety, depression, delirium, and dementia, among others.

**GERON 4490 Directed Readings: 1-3 semester hours**

Prerequisites: Consent of instructor Directed reading and research or field work. May be repeated for a maximum of three hours.

**GERON 4680 Introduction to Gerontological Practice: 3 semester hours**

Same as SOC WK 4680. Prerequisites: Advanced undergraduate or graduate standing. This course introduces key concepts and practices in the evaluation and care of older adults. It is intended for students considering aging-focused careers in the social service or healthcare fields. Topics include developmental and health-related theories of aging, functional and psychosocial aspects of aging, working with older adults in various service settings, multi and interdisciplinary team approaches, and basic standards of professional conduct that apply across professions.

**GERON 4700 Successful Aging: Individual & Societal Perspectives: 3 semester hours**

This course addresses key components of successful aging including avoidance of disease, maintenance of good mental and physical function, and sustained engagement in life. Students become familiar with the different intra- and extra-personal determinants of successful aging and learn to distinguish between the concepts of successful and productive aging. Also discussed is the impact of societal, economic and political context on success in aging (e.g. health care delivery, entitlement programs, technology, globalization, volunteerism, and culture).

**GERON 5320 Gender & Aging: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. This course examines advancing age through a gender lens. Men and women experience aging differently based on a host of genetic, biological, psychological, sociocultural and personal identity factors. This course challenges students to consider aging from various perspectives, including cultural expectations and norms, couple and family relationships, health and function, work life and retirement, sexual orientation, gender identity, concerns of LGBT elders, and veteran's issues.

**GERON 5361 Advanced Social Gerontology: 3 semester hours**

Prerequisites: Graduate Standing. An examination of sociological theories of aging, technological and social change and its effects on the environment of older people, and prejudice and discrimination against the elderly.

**GERON 5376 Psychopathology And Aging: 3 semester hours**

Prerequisites: Graduate Standing Recent theory and research in mental health issues for older populations. The primary focus is on major psychological disorders prevalent among older adults and in assessment and treatment approaches for aging populations.

**GERON 5420 Research Methods and Analysis I: 3 semester hours**

Prerequisites: Admission to the MSG Program or graduate standing.

The first of a two-course sequence designed to provide students with the knowledge base and skills for using the scientific method to advance gerontological knowledge, theory and evidence-based practice. Focuses on research methods employed in aging-related studies, with a special emphasis on the critical evaluation of academic studies and the evidentiary basis of key findings. Covers quantitative and qualitative approaches, research design, sampling procedures, measurement, use of results, impact of research, and ethical considerations.

**GERON 5440 Cultural Aspects Of Aging: 3 semester hours**

Same as ANTHRO 5440. Prerequisites: Graduate status or consent of the instructor. Focuses on the variety of solutions encountered in different sociocultural contexts for dealing with the problems, challenges and opportunities of growing old. It is organized around topics that are of concern to both anthropology and social gerontology: the status of the aged, intergenerational relations, aging in modernizing societies, ethnic dimensions of aging in complex societies, health in later life, death and dying. Both in-depth case studies and cross-cultural comparisons are examined in an effort to arrive at a culturally informed assessment of factors affecting aging and the aged in the United States.

**GERON 5450 Research Methods and Analysis II: 3 semester hours**

Prerequisites: GERON 5420 or equivalent. An advanced course focused on the framing and analysis of qualitative and quantitative data to advance gerontological knowledge, theory, and evidence-based practice. Students learn to use and interpret various statistical procedures for analyzing qualitative and quantitative data (including bivariate and multivariate analyses). Students apply various analytic techniques using computer software applications.

**GERON 5610 Mechanisms Of Aging I: The Aging Body: 1 semester hour**

Same as SOC WK 5610 and PSYCH 5610 Prerequisites: Graduate standing and BIOL 1102 or equivalent. (MSW students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social science/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

**GERON 5611 Mechanisms Of Aging II: The Aging Brain: 1 semester hour**

Same as SOC WK 5611 and PSYCH 5611. Prerequisites: GERON 5610 or SOC WK 5610 or PSYCH 5610 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

**GERON 5612 Mechanisms Of Aging III: Diseases Of Aging: 1 semester hour**

Same as SOC WK 5612 and PSYCH 5612. Prerequisites: GERON 5610 and GERON 5611 or SOC WK 5610 and SOC WK 5611 or PSYCH 5610 and PSYCH 5611 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background with information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.

**GERON 5620 Dying, Grief & Death in Older Adulthood: 3 semester hours**

Same as SOC WK 5620. Prerequisite: Six hours of graduate level gerontology, psychology, counseling and/or social work coursework, or special approval from the instructor. Undergraduates in their senior year may also request approval for entry from the Director of Gerontology. For those planning to work with older adults in counseling, healthcare, hospice, and/or community support settings. Will examine trajectories to death in older age, the dying process, influences of medical and aging-related conditions, euthanasia and suicide, life extension and longevity, personal beliefs and existential responses, how individuals and families cope, ethical concerns, and strategies for supportive intervention. Topics are addressed from clinical, supportive care, and interdisciplinary perspectives.

**GERON 6120 Theory and Practice with Older Adults: 3 semester hours**

Same as SOC WK 6120. Prerequisites: Graduate Standing. Examines theory and empirically-based assessment and intervention models for work with the elderly. It includes the life circumstances of older adults and how that differs from younger adult populations; how ethnicity, gender, social class, and sexual orientation interact with age and create special intervention issues; discussion of ethical and value issues (e.g. client autonomy, rationing of health care); examination of family and community resources in providing care; and interventions with physically or mentally disabled elders and elders in residential settings.

**GERON 6130 Interviewing Older Adults And Life Review: 3 semester hours**

Same as SOC WK 6130. Prerequisite: Graduate Standing. This course combines training in interviewing techniques with video editing/production. Students will learn how to conduct life review interviews with older adults, and then take these skills into the community by interviewing older adults living in various settings. Students will learn how to use a digital video camera and edit video clips on the computer. Student-conducted interviews will be viewed by the instructor and classmates, issues associated with aging will be discussed, and constructive feedback provided. Some of the video clips developed in the course will become part of an educational video clip library.

**GERON 6441 Aging And Health Behavior: 3 semester hours**

Same as PSYCH 6441. Prerequisite: Graduate standing. This course examines sociocultural influences on health care practices of older adults. The role of social support and other social resources in the health behavior of older adults is emphasized. Topics include self care decisions, formal service utilization, family caregiving, and planned interventions for older adults.

**GERON 6443 Health Care Policy: 3 semester hours**

Same as P P ADM 6430, POL SCI 6443, and SOC WK 6443. Prerequisites: Graduate standing or consent of instructor. Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

**GERON 6444 Seminar In Public Policy And Aging: 3 semester hours**

Same as P P ADM 6444, and POL SCI 6444. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include: housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.



**GERON 6449 Issues In Retirement: 3 semester hours**

Prerequisites: Graduate standing. This course examines macro and micro issues of retirement in the United States--its processes, causes, and consequences--in relation to economic market conditions, demographic changes, and programs and policies that are targeted to support the elderly (e.g., Social Security). It also examines issues relating to older women and retirement.

**GERON 6450 Gerontological Assessment: 3 semester hours**

Same as SOC WK 6450. Prerequisite: Graduate standing. This course provides an overview of psychosocial assessment with older adults and their family caregivers. Major areas of gerontological assessment practice are considered, including dementia, mood disorders, suicide, grief, alcoholism, elder abuse/neglect, family caregiving, and interdisciplinary team issues.

**GERON 6460 Long Term Care Administration: 3 semester hours**

Prerequisite: Graduate Standing This course provides an overview of long term care programs and services for older adults. Administrative issues are reviewed, including patient services, state licensure requirements, human resource management, and reimbursement practices. Characteristics of well-functioning facilities are addressed, as well as consultation with families during the placement decision process.

**GERON 6470 Epidemiology of Aging: 3 semester hours**

Prerequisites: Graduate Standing. This course reviews the distribution and determinants of health-related conditions and functional concerns in older populations. An emphasis is placed on key concepts and methodological considerations for conducting epidemiological studies. Students learn about the epidemiology of selected diseases, syndromes and conditions common to older age, including various trajectories of physical and cognitive decline. Also discussed are the roles that epidemiological data play in the development of interventions to control and prevent age-related disease and inform public health decision-making and evidence-based geriatric practice.

**GERON 6490 Directed Study: 1-3 semester hours**

Prerequisite: Consent of Instructor. Designed to give the student an opportunity to pursue a more in-depth study of a problem area in gerontology than is normally covered in more formal courses. May be repeated for a total of six credit hours.

**GERON 6495 Practicum In Gerontology: 3 semester hours**

This course provides supervised work experience in an agency that serves older adults. Students are required to complete a minimum of 150 clock hours at the practicum site.

**GERON 6496 Advanced Practicum In Gerontology: 3 semester hours**

Prerequisites: GERON 6495 and consent of instructor This course provides advanced practicum experience beyond GERON 6495. Students must complete a minimum of 150 clock hours of supervised field work (service or research) with older adults.

**GERON 6497 Interdisciplinary Geriatric Care: 3 semester hours**

Prerequisites: Consent of instructor. Same as VIS SCI 6497. Interdisciplinary approaches that address the medical, social, instrumental and functional needs of older adults will be examined. Information about geriatric care management and social issues affecting the well-being of older adults will be provided. Clinical, theoretical, and educational perspectives will be presented.

**GERON 6498 Advanced Seminar In Gerontology: 3 semester hours**

Prerequisite: Graduate standing. This course will provide in-depth analysis of specialized topics in gerontology which are not covered in required courses. (Course may be repeated for a maximum of nine credits, assuming topics are different.).

**GERON 6499 Topics In Gerontology: 1-3 semester hours**

Prerequisite: Graduate standing. Analysis of a current problem in gerontology. (Course may be repeated for maximum of five credits, assuming topics are different.).

**GERON 6500 Practicum in Gerontological Research: 3 semester hours**

Prerequisites: GERON 6495 and consent of the instructor. A supervised social science research experience involving a combination of two or more of the following activities: literature review, hypothesis generation, study design and proposal, IRB application, participant recruitment, data collection, data management, data analysis, and report/article generation.

**GERON 6510 Directed Research in Aging: 1-3 semester hours**

Prerequisites: Consent of the instructor. Designed to give the student an opportunity to explore a question of interest from a qualitative and/or quantitative research perspective. This supervised experience may include one or more of the following activities (depending on enrolled hours): literature review, hypothesis generation, study design and proposal, IRB application, participant recruitment, data collection, data management, data analysis, and report/article generation.

## Greek Ancient

### Courses

**GRK ANC 1001 Ancient Greek I: 5 semester hours**

Study of grammar, syntax and vocabulary accompanied by readings of simple prose selections.

**GRK ANC 1002 Ancient Greek II: 5 semester hours**

Prerequisite: GRK ANC 1001 or equivalent. The study of vocabulary, grammar and syntax is continued from GRK ANC 1001, including readings and discussion from selected classic authors.

**GRK ANC 2101 Intermediate Ancient Greek Language And Culture: 3 semester hours**

Prerequisite: GRK ANC 1002 or equivalent. Students will advance their understanding of ancient Greek culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**GRK ANC 2152 A Brief Introduction to Greek and Latin in English Today: 1 semester hour**

Same as LATIN 2152. This outline course is designed to enrich the student's general liberal arts vocabulary as well as to improve mastery of terms used in law, medicine, and science. The emphasis is on vocabulary derived from Greek and Latin. Included will be the Greek alphabet and an introduction to historical language change involving the relationship among Greek, Latin, and Romance languages, and Germanic languages (particularly English). This course is not to be taken in addition to GRK ANC 2151.

### Courses

**GRK ANC 1001 Ancient Greek I: 5 semester hours**

Study of grammar, syntax and vocabulary accompanied by readings of simple prose selections.

**GRK ANC 1002 Ancient Greek II: 5 semester hours**

Prerequisite: GRK ANC 1001 or equivalent. The study of vocabulary, grammar and syntax is continued from GRK ANC 1001, including readings and discussion from selected classic authors.



**GRK ANC 2101 Intermediate Ancient Greek Language And Culture: 3 semester hours**

Prerequisite: GRK ANC 1002 or equivalent. Students will advance their understanding of ancient Greek culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**GRK ANC 2152 A Brief Introduction to Greek and Latin in English Today: 1 semester hour**

Same as LATIN 2152. This outline course is designed to enrich the student's general liberal arts vocabulary as well as to improve mastery of terms used in law, medicine, and science. The emphasis is on vocabulary derived from Greek and Latin. Included will be the Greek alphabet and an introduction to historical language change involving the relationship among Greek, Latin, and Romance languages, and Germanic languages (particularly English). This course is not to be taken in addition to GRK ANC 2151.

## Greek Modern

### Courses

**GRK MOD 1001 Modern Greek I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, reading, and writing of Modern Greek and upon the acquisition of the fundamentals of grammar and syntax.

**GRK MOD 1002 Modern Greek II: 5 semester hours**

Prerequisite: GRK MOD 1001 or equivalent. The study of vocabulary, grammar and syntax is continued from GRK MOD 1001. Readings and discussions from selected classical authors.

**GRK MOD 2101 Intermediate Modern Greek Language And Culture: 3 semester hours**

Prerequisites: GRK MOD 1002 or equivalent. Students will advance their understanding of modern Greek culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**GRK MOD 2102 Intermediate Modern Greek Language And Culture II: 3 semester hours**

Prerequisite: GRK MOD 2101 or equivalent. Emphasis is placed on the study of Greek and Greek-American culture and the continued development of language skills through meaningful communicative interaction.

**GRK MOD 2150 Modern Greek Literature In Translation: 3 semester hours**

This course is an exploration of significant works by major Modern Greek authors, dealing with relevant issues of Western literary traditions. Authors include: Cavafy, Kazantzakis, Seferis, Solomos, Elytis.

**GRK MOD 2190 Special Readings: 1-3 semester hours**

Prerequisites: GRK MOD 2101 or consent of the department. Independent study through readings, reports, and conferences.

### Courses

**GRK MOD 1001 Modern Greek I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, reading, and writing of Modern Greek and upon the acquisition of the fundamentals of grammar and syntax.

**GRK MOD 1002 Modern Greek II: 5 semester hours**

Prerequisite: GRK MOD 1001 or equivalent. The study of vocabulary, grammar and syntax is continued from GRK MOD 1001. Readings and discussions from selected classical authors.

**GRK MOD 2101 Intermediate Modern Greek Language And Culture: 3 semester hours**

Prerequisites: GRK MOD 1002 or equivalent. Students will advance their understanding of modern Greek culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**GRK MOD 2102 Intermediate Modern Greek Language And Culture II: 3 semester hours**

Prerequisite: GRK MOD 2101 or equivalent. Emphasis is placed on the study of Greek and Greek-American culture and the continued development of language skills through meaningful communicative interaction.

**GRK MOD 2150 Modern Greek Literature In Translation: 3 semester hours**

This course is an exploration of significant works by major Modern Greek authors, dealing with relevant issues of Western literary traditions. Authors include: Cavafy, Kazantzakis, Seferis, Solomos, Elytis.

**GRK MOD 2190 Special Readings: 1-3 semester hours**

Prerequisites: GRK MOD 2101 or consent of the department. Independent study through readings, reports, and conferences.

## Gender Studies

### Courses

**GS 1004 History Of Women In The United States: 3 semester hours**

Same as HIST 1004. A survey of women's history from the colonial era to the present.

**GS 2020 History of Women and Social Movements: 3 semester hours**

Same as HIST 2020. Prerequisites: Sophomore standing or consent of the instructor. This course explores the history of women and social movements in the nineteenth and twentieth century United States. It considers social and political movements such as abolitionism, women's suffrage, progressivism, the labor movement, the civil rights movement, and second wave feminism.

**GS 2100 Women in Contemporary Society: 3 semester hours****GS 2102 Introduction To Gender Studies: 3 semester hours**

Same as SOC WK 2102, HIST 2102, and SOC 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

**GS 2130 Gender and the Military: 3 semester hours**

Same as MVS 2130. This course examines the treatment of gender difference in the military and focuses on the complex intersection between military culture and social constructs of gender in the civilian world.

**GS 2150 Special Topics In Gender Studies: 3 semester hours**

An introduction to a particular topic area in women's and gender studies (topics will be announced prior to registration) drawing on the theories and methods of such disciplines as sociology, psychology, political science, history, philosophy, art history, and others to examine particular aspects of gender in social and cultural life. Course may satisfy the distribution requirement for humanities or social sciences depending on the topic.

**GS 2224 Marriage And The Family: 3 semester hours**

Same as SOC 2224. The study of patterns of close relationships, and how these relationships are influenced by larger social forces. Topics include love, dating, mate selection, cohabitation, alternative lifestyles, working families, parenting, single mothers, families in crisis, domestic violence, and divorce. Universal and variable aspects of family organization, family role systems, and changes in family social structure are considered.

**GS 2230 Psychology Of Gender: 3 semester hours**

Same as PSYCH 2230. Prerequisites: PSYCH 1003. Evaluation of psychological theories and research regarding physiological, cognitive, and personality gender differences and similarities, gender related problems in adjustment, and gender specific clinical interventions.

**GS 2232 Psychology Of Trauma: 3 semester hours**

Same as PSYCH 2232. Prerequisites: PSYCH 1003. This course is designed to review the psychological effects of crime, violence, war, natural disasters, and other traumas. Particular attention is paid to the development of specific psychopathology and other negative consequences of traumatic events. The process of recovery from distress following psychological events is further emphasized. The role of gender and its relationship to victimization and the development of psychopathology and recovery are considered throughout the course.

**GS 2253 Philosophy And Feminism: 3 semester hours**

Same as PHIL 2253. A critical examination of what various philosophers have said about issues of concern to women. Sample topics include oppression, racism, women's nature, femininity, marriage, motherhood, sexuality, pornography, the ethics of care.

**GS 2290 Gender And The Law: 3 semester hours**

Same as POL SCI 2290. This course examines the ways in which laws and interpretations of laws affect gender equality in the United States. Emphasizing how traditional roles impact both women and men historically and currently, the course highlights major pieces of legislation and court rulings related to employment, economics, education, sexual harassment, pornography, rape, reproductive rights, and domestic relations. The course stresses the impact of federal and state institutions and non-governmental influences on equality. It also addresses gender representation in the legal profession and its effect on judicial decisions. This course satisfies State requirements in American History and Government.

**GS 2380 Politics of Gender in the United States: 3 semester hours**

Same as POL SCI 2380. Prerequisites: POL SCI 1100 or consent of instructor. This course examines the role of gender in political institutions, practices and policy in the United States, past and present. It focuses on various movements for political equality, the relationship between gender and political participation, vote choice, and public opinion, and how legislative, executive, and judicial offices are gendered at the national, state, and local levels. (This course satisfies the State requirements in American History and Government).

**GS 2410 Work, Families, And Public Policy: 3 semester hours**

Same as ECON 2410. Prerequisites: ECON 1000 or ECON 1001. This course compares the economic behavior of women and men in both the labor market and the household. Topics include: the family as an economic (production) unit, gender differences in labor force participation, occupations and earnings; the effectiveness of human capital theory and labor market discrimination in explaining the male-female wage gap; remedies for reducing the wage gap; family structure and economic well-being; and alternative policies to alleviate poverty. Students who have completed ECON 3400 may not take 2410 for credit.

**GS 3031 History Of Women In The United States: 3 semester hours**

Same as HIST 3031. Prerequisites: Junior standing or consent of the instructor. Development of women's economic, political, and social role in the United States with special emphasis on the nineteenth and twentieth centuries; women and work; women and the family; women and reform movements; women and education; feminist theories and activists; images of women.

**GS 3032 History Of Women In Comparative Cultures: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. An introduction to the historical development of women's status in a variety of cultures and periods within the areas of Africa, Europe, the Far East, Latin America, and the Middle East. The course analyzes women's political, economic, familial, and sexual roles and the economic, demographic, ideological, and political forces which promoted change and continuity in those roles.

**GS 3033 Sexuality And Gender Theory: 3 semester hours**

Same as HIST 3033. Prerequisites: Junior standing or consent of instructor. Course examines the ways in which contemporary sexuality and gender theory has challenged and changed the study of culture and history. The course introduces students to sexuality and gender theory in late twentieth and early twenty-first century contexts.

**GS 3034 History Of Sexuality: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. This course locates sexuality at the center of history and examines its impact over time on politics, society, culture, and economics. In particular, the course focuses on changing definitions of sexual deviance, the historical evolution of formal and informal regulations of sexual practices and on the manner in which sex has been deployed in broader historical struggles involving gender, race, class, migration and state building.

**GS 3224 Families in Global Perspective: 3 semester hours**

Same as SOC 3224. Prerequisites: SOC 1010 or consent of instructor. This course presents research from the fields of demography, sociology, economics, and public policy in order to develop a broader understanding of the causes and consequences of population aging, one of the major demographic changes faced by social institutions worldwide. Attention to the global diversity of human experiences by age, gender, socioeconomic status, .

**GS 3250 Sociology Of Victimization: 3 semester hours**

Same as SOC 3250. Prerequisite: SOC 1010. This course examines the role of social factors in a wide range of kinds of victimization--crime, violence, natural disasters, accidents, disease, etc. The topic of social reactions to various kinds of victimization is also covered. Sociological theories of victimization are emphasized.

**GS 3350 Special Topics In Gender Studies: 3 semester hours**

Prerequisite: GS 2102 or consent of instructor. Special topics in women's and Gender Studies. topics vary by semester.

**GS 3352 Independent Studies In Gender Studies: 1-3 semester hours**

Prerequisites: Junior standing; two courses in Women's and Gender Studies, including GS 2102; and consent of the instructor and the Institute. Directed independent work in selected women's and gender studies topics through readings, research, reports and/or conferences. Course may satisfy the distribution requirement for the humanities, social sciences, or math/science depending on topic.

**GS 3376 Gender In The Visual Arts: 3 semester hours**

Same as ART HS 3376. Prerequisites: Minimum of one 2000-level course in ART HIST and ENGL 3100, or consent of instructor. Selected topics in the role of gender difference in the production and reception of works of visual art and culture. This course will consider examples of historical and contemporary works through gender theories and the analysis of cultural and social factors that contribute to the construction of sexualities and genders.

**GS 3590 Women and Leadership World-Wide: Breaking the Glass Ceiling: 3 semester hours**

Same as POL SCI 3590. Prerequisites: POL SCI 1500 or consent of instructor. Compares women's day-to-day leadership and participation patterns across a wide variety of political-economic contexts, emphasizing their performance as elective and executive office holders. It examines the experiences of individual female leaders, the effect of country-specific nomination and recruitment strategies, party dynamics, and the larger political opportunity structure hindering or promoting the balanced participation of women and men in national leadership. Understanding how gender (the socially constructed meanings related to biological sex) operates within these specific contexts is a major concern.

**GS 3700 Diversity And Social Justice: 3 semester hours**

Same as SOC WK 3700. Prerequisites: PSYCH 2160 or SOC 2160; and SOC WK 3100 taken prior or concurrently. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

**GS 4100 Introduction to Feminist and Gender Theory: 3 semester hours**

Same as SOC 4100. Prerequisites: GS 2102. This class serves as an initial intellectual investigation into gendered ideologies (such as the effects of race, ethnicity, nationality, socioeconomic class, sexuality, and religion) and functions as a bridge to later advanced gender theory and methods courses. Topics include interdisciplinary feminist theories (with a focus on gender equality), including masculinity theory, queer theory, muted group theory, and other evolving frameworks.

**GS 4150 Feminist Theory and Social Research: 3 semester hours**

Same as SOC 4150. Prerequisites: GS 2102 and Junior Standing or consent of instructor. This course provides an in-depth examination of feminist theoretical contributions to social science research. We begin by examining the 20th century roots of contemporary feminist theories. With this foundation in place, we then shift to an investigation of how feminist theory has informed sociological research by examining current feminist understandings of gender, race, and sexual inequalities across a range of contemporary social problems. Fulfills WGS feminist theory requirement.

**GS 4300 The Female Gaze: Women And The Media: 3 semester hours**

Prerequisites: Junior Standing or consent of instructor This course challenges how women's issues and performances of femininity are represented in global media, particularly popular Western media which perpetuate cultural stereotypes of gender norms. Specific topics will vary.

**GS 4325 Gender, Crime And Justice: 3 semester hours**

Same as CRIMIN 4325 and SOC 4325. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the role of gender in crime and in the justice system. Emphasis on gender differences in crime commission, criminal processing, and the employment of women in criminal justice agencies. Fulfills criminology diversity requirement.

**GS 4330 Violence Against Women: 3 semester hours**

Same as CRIMIN 4330. Prerequisites: Junior Standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. This course examines the nature, extent, causes and consequences of various types of violence against women, including rape, sexual assault, stalking, and intimate partner violence. Criminal justice policy and practice regarding violence against women are also examined.

**GS 4350 Special Topics In Gender Studies: 3 semester hours**

Prerequisites: GS 2102 or consent of instructor. Special topics examined from a gender perspective in the fields of anthropology, art history, criminology, economics, English, foreign language, history, philosophy, political science, psychology, social work, sociology, business, or others. Topics and departments vary by semester. Course may be repeated by permission of Director of the Center.

**GS 4352 Independent Study In Gender Studies: 1-3 semester hours**

Prerequisites: GS 2102 or consent of instructor. Independent, directed readings and research in a women's gender related topic, to be determined in consultation with instructor.

**GS 4353 Internship In Gender Studies: 3 semester hours****GS 4360 Sociology Of Minority Groups: 3 semester hours**

Same as SOC 4360. Prerequisites: SOC 1010 and junior standing or consent of instructor. The study of dominant-subordinate group relations. Religion, ethnicity, race, and gender as factors in the unequal distribution of power.

**GS 4452 Feminism And Science: 3 semester hours**

Same as GS 4452. Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. This course will explore major themes and issues in feminist science scholarship, a body of research that focuses on the relationship between science and gender. Feminist research in the philosophy and history of science, and in the biological sciences, are emphasized. Issues include: the nature of objectivity, evidence, and truth; the factors that contribute to the acceptance or rejection of research hypothesis and theories; the nature and consequences of science's cognitive authority; and the relationship between science and values.

**GS 4600 Masculinities: 3 semester hours**

Same as SOC 4600. Prerequisites: GS 2102 or consent of instructor. This course examines men and masculinities through a critical lens, looking carefully at an institutionalized system of gender relations and practices that is assumed to be a natural phenomenon that is culturally universal. The course explores various masculine behaviors, myths, ideologies, and experiences so that students can consider the relationship between masculine practice and social power and delineate choices for future directions. The course is necessarily interdisciplinary and may utilize tools and methods from the social sciences and the humanities. Satisfies GS gender theory requirement.

**GS 4610 Intimate Partner Violence: 3 semester hours**

Same as SOC WK 4610. Prerequisites: SOC WK 3510. Focuses on theoretical and empirical understanding of domestic violence in US society and social work practice with battered women and their families. Addresses direct services, community organizing, and public policy changes to help end violence against women. Relationships between violence against women and other forms of oppression (e.g., racism, economic exploitation, heterosexism and social class) are explored.

**GS 4630 Gender and Social Issues: 3 semester hours**

Same as SOC WK 4630. Prerequisites: SOC WK 3700, GS 2102 or graduate standing. This course will help students become more sensitive to social and welfare concerns based on gender. Topics may include work, education, family responsibilities, violence against women, and special health and mental health service needs. Emphasis will be placed on understanding how social action can be used to bring about positive change.

**GS 4920 Women Writing Nature: 3 semester hours**

Prerequisites: GS 2102, or consent of instructor. We will read and analyze nature writing by 19th and 20th-century women in America, as well as critical studies from various cultural perspectives and academic disciplines. The course will examine how women's observations about nature create, support, and/or dispute particular cultural and social attitudes toward the environment. Students will consider debates in feminist pedagogy, ecofeminism, and social constructivism about the relationship of gender to nature.

**GS 4925 Feminism and Witchcraft: 3 semester hours**

Prerequisites: GS 2102, or consent of instructor. This class will examine literary and historical treatments of witchcraft through a cross-cultural, feminist theoretical framework. Students will read primary historical documents as well as fictional, dramatic, and poetic representations of witches and witchcraft. The course will consider changing perspectives toward witches in contemporary gender theory, spiritualist discourse and popular media.

**GS 4930 Studies In Gender And Literature: 3 semester hours**

Same as ENGL 4930. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. The course examines the role of gender in literature, including the transformation of literary genres by women writers, writings by women during a particular historical period, and gender relations in literature. Specific topics vary from semester to semester. The course may be repeated for credit with departmental approval.

**GS 4931 English Women Writers, 1300-1750: 3 semester hours**

Same as ENGL 4931. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. Works will be read ranging in scope from closet drama and romance to lyrics to personal, political, and religious writing by women, such as Margery Kempe, Mary Sidney, and Amelia Lanyer who wrote during a period when reading and writing were not the female norm.

**GS 4932 Female Gothic: 3 semester hours**

Same as ENGL 4932. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. The course examines the historical development of the female gothic, a genre which employs narrative strategies for expressing fears and desires associated with female experience. From the late 18th century to the present, we will trace the persistence of the Gothic vision in fiction and film.

**GS 4933 Female Novel Of Development: 3 semester hours**

Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. The course covers the development of the female Bildungsroman from the late 18th century to the present. We will consider how temporary and current theories of female development help us read these novels within their particular cultural contexts.

**GS 4934 Austen And The Brontes: 3 semester hours**

Same as ENGL 4934. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. This course covers the novels of the major 19th century British writers Jane Austen and the three Bronte sisters, Anne, Emily, and Charlotte. The course will be devoted to Austen's romantic comedies and the historical/cultural contexts that inform the novels, as well as the darker romanticism of the Brontes, along with the biographical, cultural, philosophical, and religious contexts of their work.

**GS 4936 Tales Of The Islamic East: 3 semester hours**

Same as ENGL 4936. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. Adventure, gender, and power in British and post-colonial writing: Lady Montague on Turkey, Gibbon on Islam, Byron and Hemans on harems and heroes, Disraeli on the Jewish Caliph of Bagdad, T.E. Lawrence on Arabia, and el Saadawi and Rushdie on (post)modern gender and the Islamic East.

**GS 4938 American Women Poets Of The 20Th/21St Centuries: 3 semester hours**

Same as ENGL 4938. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. Introduction to American women poets since 1900: anarchists, Imagists, Harlem formalists, white lyricists, modernists (Ridge, H.D., Dunbar-Nelson, Millary, Stein); mid-century giants (Rukeyster, Brooks) and Confessionals (Sexton, Plath); feminists and multiculturalists (Rich, Lorde, Giovanni, Hogan), poets of witness and the play of language and the mind (Klepfisz, Olds, Mullen, Perillo).

**GS 5031 Advanced History Of Women In The United States: 3 semester hours**

Prerequisites: Graduate standing. Development of women's economic, political, and social roles in the United States with special emphasis on the nineteenth and twentieth centuries: women and work; women and the family; women and reform movements; women and education; feminist theorists and activists; images of women.

**GS 5032 Advanced History Of Women In Comparative Cultures: 3 semester hours**

Prerequisites: Graduate standing. An introduction to the historical development of women's status in a variety of cultures and periods within the areas of Africa, Europe, the Far East, Latin America, and the Middle East. The course analyzes women's political, economic, familial, and sexual roles and the economic, demographic, ideological, and political forces which promoted change and continuity in these roles.

**GS 5033 Sexuality And Gender Theory: 3 semester hours**

Prerequisite: Graduate standing. Course examines the ways in which contemporary sexuality and gender theory have challenged and changed the study of culture and history. The course introduces students to sexuality and gender theory in late twentieth and early twenty-first century context-s.



**GS 5040 Feminist Critical Theory: 3 semester hours**

Prerequisites: Graduate Standing and consent of instructor. Same as ENGL 5040. A consideration of feminist critical theory as a means of reassessing literary texts and our cultural heritage. After exploring the roots of feminist criticism, the seminar will examine Anglo-American and continental debates on theories of language, writing and representation. In providing an interdisciplinary context the course will consider studies in psychology, anthropology, history, and philosophy/theology which have influenced and enriched feminist approaches to literature.

**GS 5053 Advanced Studies In African-American History: 3 semester hours**

Prerequisites: Graduate Standing. Course introduces some of the themes of African-American women's history. By examining the impact of region, gender, and class on African-American women's experiences across time, the course highlights black women's applied and theoretical contributions to feminist politics and activism as well as the black struggle for freedom and equality. Topics covered include: slavery and emancipation, institution and community building, the family and work, electoral politics and direct action protest, civil rights, and contemporary issues.

**GS 5320 Gender and Aging: 3 semester hours**

SAME AS GERON 5320. Prerequisites: Graduate standing or permission of instructor. This course examines advancing age through a gender lens. Men and women experience aging differently based on a host of genetic, biological, psychological, sociocultural and personal identity factors. This course challenges students to consider aging from various perspectives, including cultural expectations and norms, couple and family relationships, health and function, work life and retirement, sexual orientation, gender identity, concerns of LGBT elders, and veteran's issues.

**GS 5350 Topics In Women's And Gender Studies: 3 semester hours**

Prerequisites: Graduate standing and at least one Women's and Gender Studies course. This course will focus on a particular aspect of gender (to be announced prior to registration) and will draw upon recent theoretical and methodological work from a variety of disciplines.

**GS 5450 Special Topics In Gender Studies: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Special topics at the Graduate level examined from a gender perspective in the field of anthropology, art history, criminology, economics, English, foreign language, history philosophy, political science, psychology, social work, sociology, business, or others. Topics and departments vary by semester.

**GS 5500 Foundations Of Human Behavior In The Social Environment: 3 semester hours**

Same as SOC WK 5500. Prerequisites: SOC WK 3150 or equivalent or admission to the MSW program. Focuses on theoretical and empirical understanding of human behavior in the social environment using a life-span perspective. Introduces biological, behavioral, cognitive, and sociocultural theories of individuals, families, and small groups, and their implications for the professional social worker's understanding of socioeconomic status, gender, disability, ethnicity, race, and sexual orientation.

**GS 5635 Social Work Practice With Gay, Lesbian, Bisexual and Transgender Populations: 3 semester hours**

Same as SOC WK 5635. Prerequisites: SOC WK 5100 and SOC WK 5500. This advanced practice course focuses on developing the theoretical and empirical knowledge and practice skills necessary for effective social work practice with lesbian, gay male, bisexual, and transgender (LGBT) persons and their families. This course aims to explore deeper understanding of LGBT identities, families, health and mental health challenges, and issues of political advocacy.

**GS 5700 Diversity, Social Justice And Social Practice: 3 semester hours**

Same as SOC WK 5700. Prerequisites: Graduate Standing. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

**GS 5940 Seminar In Gender And Literature: 3 semester hours**

Same as ENGL 5940. Gender studies in literature of different periods, types, and genres; satisfies area requirement (1-6) appropriate to its period, national literature, and genre.

**GS 6350 Gender, Language and Identity: 3 semester hours**

Same as TCH ED 6350. Prerequisites: Graduate Standing. An interdisciplinary look at the ways gendered and racial identities get developed and shaped through language and culture. Readings will address the complex, yet sometimes invisible, ways that identity, language and gender intersect, creating and assigning roles, responsibilities, and possible selves to individuals and groups in a global world.

**GS 6353 Graduate Internship In Gender Studies: 1-6 semester hours**

Prerequisites: Graduate standing and consent of director. Provides an opportunity for the Graduate Women's and Gender Studies student to acquire "real world" experience working in a non-profit, political, economic, or social service organization with a gender focus.

**GS 6410 Women and Mental Health: 3 semester hours**

Same as PSYCH 7410. Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of the instructor. This course will focus on contemporary research on the psychology of women pertaining to mental health issues. Etiology and treatment of disorders disproportionately affecting women will be emphasized.

**GS 6446 Sex Crime: 3 semester hours**

Same as CRIMIN 6446. Prerequisites: Graduate Standing and consent of instructor. Examination of consensual and non-consensual sexual offending. Topics include historical development of laws regulating sexual conduct, controversies surrounding the application of these laws, and the nature and distribution of sexual offenses.

**GS 6450 Seminar In Gender Studies: 3 semester hours****GS 6452 Special Readings In Gender Studies: 3 semester hours****Courses****GS 1004 History Of Women In The United States: 3 semester hours**

Same as HIST 1004. A survey of women's history from the colonial era to the present.

**GS 2020 History of Women and Social Movements: 3 semester hours**

Same as HIST 2020. Prerequisites: Sophomore standing or consent of the instructor. This course explores the history of women and social movements in the nineteenth and twentieth century United States. It considers social and political movements such as abolitionism, women's suffrage, progressivism, the labor movement, the civil rights movement, and second wave feminism.

**GS 2100 Women in Contemporary Society: 3 semester hours****GS 2102 Introduction To Gender Studies: 3 semester hours**

Same as SOC WK 2102, HIST 2102, and SOC 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

**GS 2130 Gender and the Military: 3 semester hours**

Same as MVS 2130. This course examines the treatment of gender difference in the military and focuses on the complex intersection between military culture and social constructs of gender in the civilian world.

**GS 2150 Special Topics In Gender Studies: 3 semester hours**

An introduction to a particular topic area in women's and gender studies (topics will be announced prior to registration) drawing on the theories and methods of such disciplines as sociology, psychology, political science, history, philosophy, art history, and others to examine particular aspects of gender in social and cultural life. Course may satisfy the distribution requirement for humanities or social sciences depending on the topic.

**GS 2224 Marriage And The Family: 3 semester hours**

Same as SOC 2224. The study of patterns of close relationships, and how these relationships are influenced by larger social forces. Topics include love, dating, mate selection, cohabitation, alternative lifestyles, working families, parenting, single mothers, families in crisis, domestic violence, and divorce. Universal and variable aspects of family organization, family role systems, and changes in family social structure are considered.

**GS 2230 Psychology Of Gender: 3 semester hours**

Same as PSYCH 2230. Prerequisites: PSYCH 1003. Evaluation of psychological theories and research regarding physiological, cognitive, and personality gender differences and similarities, gender related problems in adjustment, and gender specific clinical interventions.

**GS 2232 Psychology Of Trauma: 3 semester hours**

Same as PSYCH 2232. Prerequisites: PSYCH 1003. This course is designed to review the psychological effects of crime, violence, war, natural disasters, and other traumas. Particular attention is paid to the development of specific psychopathology and other negative consequences of traumatic events. The process of recovery from distress following psychological events is further emphasized. The role of gender and its relationship to victimization and the development of psychopathology and recovery are considered throughout the course.

**GS 2253 Philosophy And Feminism: 3 semester hours**

Same as PHIL 2253. A critical examination of what various philosophers have said about issues of concern to women. Sample topics include oppression, racism, women's nature, femininity, marriage, motherhood, sexuality, pornography, the ethics of care.

**GS 2290 Gender And The Law: 3 semester hours**

Same as POL SCI 2290. This course examines the ways in which laws and interpretations of laws affect gender equality in the United States. Emphasizing how traditional roles impact both women and men historically and currently, the course highlights major pieces of legislation and court rulings related to employment, economics, education, sexual harassment, pornography, rape, reproductive rights, and domestic relations. The course stresses the impact of federal and state institutions and non-governmental influences on equality. It also addresses gender representation in the legal profession admits effect on judicial decisions. This course satisfies State requirements in American History and Government.

**GS 2380 Politics of Gender in the United States: 3 semester hours**

Same as POL SCI 2380. Prerequisites: POL SCI 1100 or consent of instructor. This course examines the role of gender in political institutions, practices and policy in the United States, past and present. It focuses on various movements for political equality, the relationship between gender and political participation, vote choice, and public opinion, and how legislative, executive, and judicial offices are gendered at the national, state, and local levels. (This course satisfies the State requirements in American History and Government).

**GS 2410 Work, Families, And Public Policy: 3 semester hours**

Same as ECON 2410. Prerequisites: ECON 1000 or ECON 1001. This course compares the economic behavior of women and men in both the labor market and the household. Topics include: the family as an economic (production) unit, gender differences in labor force participation, occupations and earnings; the effectiveness of human capital theory and labor market discrimination in explaining the male-female wage gap; remedies for reducing the wage gap; family structure and economic well-being; and alternative policies to alleviate poverty. Students who have completed ECON 3400 may not take 2410 for credit.

**GS 3031 History Of Women In The United States: 3 semester hours**

Same as HIST 3031. Prerequisites: Junior standing or consent of the instructor. Development of women's economic, political, and social role in the United States with special emphasis on the nineteenth and twentieth centuries; women and work; women and the family; women and reform movements; women and education; feminist theories and activists; images of women.

**GS 3032 History Of Women In Comparative Cultures: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. An introduction to the historical development of women's status in a variety of cultures and periods within the areas of Africa, Europe, the Far East, Latin America, and the Middle East. The course analyzes women's political, economic, familial, and sexual roles and the economic, demographic, ideological, and political forces which promoted change and continuity in those roles.

**GS 3033 Sexuality And Gender Theory: 3 semester hours**

Same as HIST 3033. Prerequisites: Junior standing or consent of instructor. Course examines the ways in which contemporary sexuality and gender theory has challenged and changed the study of culture and history. The course introduces students to sexuality and gender theory in late twentieth and early twenty-first century contexts.

**GS 3034 History Of Sexuality: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. This course locates sexuality at the center of history and examines its impact over time on politics, society, culture, and economics. In particular, the course focuses on changing definitions of sexual deviance, the historical evolution of formal and informal regulations of sexual practices and on the manner in which sex has been deployed in broader historical struggles involving gender, race, class, migration and state building.

**GS 3224 Families in Global Perspective: 3 semester hours**

Same as SOC 3224. Prerequisites: SOC 1010 or consent of instructor. This course presents research from the fields of demography, sociology, economics, and public policy in order to develop a broader understanding of the causes and consequences of population aging, one of the major demographic changes faced by social institutions worldwide. Attention to the global diversity of human experiences by age, gender, socioeconomic status,.

**GS 3250 Sociology Of Victimization: 3 semester hours**

Same as SOC 3250. Prerequisite: SOC 1010. This course examines the role of social factors in a wide range of kinds of victimization--crime, violence, natural disasters, accidents, disease, etc. The topic of social reactions to various kinds of victimization is also covered. Sociological theories of victimization are emphasized.

**GS 3350 Special Topics In Gender Studies: 3 semester hours**

Prerequisite: GS 2102 or consent of instructor. Special topics in women's and Gender Studies. topics vary by semester.

**GS 3352 Independent Studies In Gender Studies: 1-3 semester hours**

Prerequisites: Junior standing; two courses in Women's and Gender Studies, including GS 2102; and consent of the instructor and the Institute. Directed independent work in selected women's and gender studies topics through readings, research, reports and/or conferences. Course may satisfy the distribution requirement for the humanities, social sciences, or math/science depending on topic.

**GS 3376 Gender In The Visual Arts: 3 semester hours**

Same as ART HS 3376. Prerequisites: Minimum of one 2000-level course in ART HIST and ENGL 3100, or consent of instructor. Selected topics in the role of gender difference in the production and reception of works of visual art and culture. This course will consider examples of historical and contemporary works through gender theories and the analysis of cultural and social factors that contribute to the construction of sexualities and genders.

**GS 3590 Women and Leadership World-Wide: Breaking the Glass Ceiling: 3 semester hours**

Same as POL SCI 3590. Prerequisites: POL SCI 1500 or consent of instructor. Compares women's day-to-day leadership and participation patterns across a wide variety of political-economic contexts, emphasizing their performance as elective and executive office holders. It examines the experiences of individual female leaders, the effect of country-specific nomination and recruitment strategies, party dynamics, and the larger political opportunity structure hindering or promoting the balanced participation of women and men in national leadership. Understanding how gender (the socially constructed meanings related to biological sex) operates within these specific contexts is a major concern.

**GS 3700 Diversity And Social Justice: 3 semester hours**

Same as SOC WK 3700. Prerequisites: PSYCH 2160 or SOC 2160; and SOC WK 3100 taken prior or concurrently. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

**GS 4100 Introduction to Feminist and Gender Theory: 3 semester hours**

Same as SOC 4100. Prerequisites: GS 2102. This class serves as an initial intellectual investigation into gendered ideologies (such as the effects of race, ethnicity, nationality, socioeconomic class, sexuality, and religion) and functions as a bridge to later advanced gender theory and methods courses. Topics include interdisciplinary feminist theories (with a focus on gender equality), including masculinity theory, queer theory, muted group theory, and other evolving frameworks.

**GS 4150 Feminist Theory and Social Research: 3 semester hours**

Same as SOC 4150. Prerequisites: GS 2102 and Junior Standing or consent of instructor. This course provides an in-depth examination of feminist theoretical contributions to social science research. We begin by examining the 20th century roots of contemporary feminist theories. With this foundation in place, we then shift to an investigation of how feminist theory has informed sociological research by examining current feminist understandings of gender, race, and sexual inequalities across a range of contemporary social problems. Fulfills WGS feminist theory requirement.

**GS 4300 The Female Gaze: Women And The Media: 3 semester hours**

Prerequisites: Junior Standing or consent of instructor This course challenges how women's issues and performances of femininity are represented in global media, particularly popular Western media which perpetuate cultural stereotypes of gender norms. Specific topics will vary.

**GS 4325 Gender, Crime And Justice: 3 semester hours**

Same as CRIMIN 4325 and SOC 4325. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the role of gender in crime and in the justice system. Emphasis on gender differences in crime commission, criminal processing, and the employment of women in criminal justice agencies. Fulfills criminology diversity requirement.

**GS 4330 Violence Against Women: 3 semester hours**

Same as CRIMIN 4330. Prerequisites: Junior Standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. This course examines the nature, extent, causes and consequences of various types of violence against women, including rape, sexual assault, stalking, and intimate partner violence. Criminal justice policy and practice regarding violence against women are also examined.

**GS 4350 Special Topics In Gender Studies: 3 semester hours**

Prerequisites: GS 2102 or consent of instructor. Special topics examined from a gender perspective in the fields of anthropology, art history, criminology, economics, English, foreign language, history, philosophy, political science, psychology, social work, sociology, business, or others. Topics and departments vary by semester. Course may be repeated by permission of Director of the Center.

**GS 4352 Independent Study In Gender Studies: 1-3 semester hours**

Prerequisites: GS 2102 or consent of instructor. Independent, directed readings and research in a women's gender related topic, to be determined in consultation with instructor.

**GS 4353 Internship In Gender Studies: 3 semester hours****GS 4360 Sociology Of Minority Groups: 3 semester hours**

Same as SOC 4360. Prerequisites: SOC 1010 and junior standing or consent of instructor. The study of dominant-subordinate group relations. Religion, ethnicity, race, and gender as factors in the unequal distribution of power.

**GS 4452 Feminism And Science: 3 semester hours**

Same as GS 4452. Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. This course will explore major themes and issues in feminist science scholarship, a body of research that focuses on the relationship between science and gender. Feminist research in the philosophy and history of science, and in the biological sciences, are emphasized. Issues include: the nature of objectivity, evidence, and truth; the factors that contribute to the acceptance or rejection of research hypothesis and theories; the nature and consequences of science's cognitive authority; and the relationship between science and values.

**GS 4600 Masculinities: 3 semester hours**

Same as SOC 4600. Prerequisites: GS 2102 or consent of instructor. This course examines men and masculinities through a critical lens, looking carefully at an institutionalized system of gender relations and practices that is assumed to be a natural phenomenon that is culturally universal. The course explores various masculine behaviors, myths, ideologies, and experiences so that students can consider the relationship between masculine practice and social power and delineate choices for future directions. The course is necessarily interdisciplinary and may utilize tools and methods from the social sciences and the humanities. Satisfies GS gender theory requirement.



**GS 4610 Intimate Partner Violence: 3 semester hours**

Same as SOC WK 4610. Prerequisites: SOC WK 3510. Focuses on theoretical and empirical understanding of domestic violence in US society and social work practice with battered women and their families. Addresses direct services, community organizing, and public policy changes to help end violence against women. Relationships between violence against women and other forms of oppression (e.g., racism, economic exploitation, heterosexism and social class) are explored.

**GS 4630 Gender and Social Issues: 3 semester hours**

Same as SOC WK 4630. Prerequisites: SOC WK 3700, GS 2102 or graduate standing. This course will help students become more sensitive to social and welfare concerns based on gender. Topics may include work, education, family responsibilities, violence against women, and special health and mental health service needs. Emphasis will be placed on understanding how social action can be used to bring about positive change.

**GS 4920 Women Writing Nature: 3 semester hours**

Prerequisites: GS 2102, or consent of instructor. We will read and analyze nature writing by 19th and 20th-century women in America, as well as critical studies from various cultural perspectives and academic disciplines. The course will examine how women's observations about nature create, support, and/or dispute particular cultural and social attitudes toward the environment. Students will consider debates in feminist pedagogy, ecofeminism, and social constructivism about the relationship of gender to nature.

**GS 4925 Feminism and Witchcraft: 3 semester hours**

Prerequisites: GS 2102, or consent of instructor. This class will examine literary and historical treatments of witchcraft through a cross-cultural, feminist theoretical framework. Students will read primary historical documents as well as fictional, dramatic, and poetic representations of witches and witchcraft. The course will consider changing perspectives toward witches in contemporary gender theory, spiritualist discourse and popular media.

**GS 4930 Studies In Gender And Literature: 3 semester hours**

Same as ENGL 4930. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. The course examines the role of gender in literature, including the transformation of literary genres by women writers, writings by women during a particular historical period, and gender relations in literature. Specific topics vary from semester to semester. The course may be repeated for credit with departmental approval.

**GS 4931 English Women Writers, 1300-1750: 3 semester hours**

Same as ENGL 4931. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. Works will be read ranging in scope from closet drama and romance to lyrics to personal, political, and religious writing by women, such as Margery Kempe, Mary Sidney, and Amelia Lanyer who wrote during a period when reading and writing were not the female norm.

**GS 4932 Female Gothic: 3 semester hours**

Same as ENGL 4932. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. The course examines the historical development of the female gothic, a genre which employs narrative strategies for expressing fears and desires associated with female experience. From the late 18th century to the present, we will trace the persistence of the Gothic vision in fiction and film.

**GS 4933 Female Novel Of Development: 3 semester hours**

Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. The course covers the development of the female Bildungsroman from the late 18th century to the present. We will consider how temporary and current theories of female development help us read these novels within their particular cultural contexts.

**GS 4934 Austen And The Brontes: 3 semester hours**

Same as ENGL 4934. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. This course covers the novels of the major 19th century British writers Jane Austen and the three Bronte sisters, Anne, Emily, and Charlotte. The course will be devoted to Austen's romantic comedies and the historical/cultural contexts that inform the novels, as well as the darker romanticism of the Brontes, along with the biographical, cultural, philosophical, and religious contexts of their work.

**GS 4936 Tales Of The Islamic East: 3 semester hours**

Same as ENGL 4936. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. Adventure, gender, and power in British and post-colonial writing: Lady Montague on Turkey, Gibbon on Islam, Byron and Hemans on harems and heroes, Disraeli on the Jewish Caliph of Bagdad, T.E. Lawrence on Arabia, and el Saadawi and Rushdie on (post)modern gender and the Islamic East.

**GS 4938 American Women Poets Of The 20Th/21St Centuries: 3 semester hours**

Same as ENGL 4938. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. Introduction to American women poets since 1900: anarchists, Imagists, Harlem formalists, white lyricists, modernists (Ridge, H.D., Dunbar-Nelson, Millary, Stein); mid-century giants (Rukeyster, Brooks) and Confessionals (Sexton, Plath); feminists and multiculturalists (Rich, Lorde, Giovanni, Hogan), poets of witness and the play of language and the mind (Klepfisz, Olds, Mullen, Perillo).

**GS 5031 Advanced History Of Women In The United States: 3 semester hours**

Prerequisites: Graduate standing. Development of women's economic, political, and social roles in the United States with special emphasis on the nineteenth and twentieth centuries: women and work; women and the family; women and reform movements; women and education; feminist theorists and activists; images of women.

**GS 5032 Advanced History Of Women In Comparative Cultures: 3 semester hours**

Prerequisites: Graduate standing. An introduction to the historical development of women's status in a variety of cultures and periods within the areas of Africa, Europe, the Far East, Latin America, and the Middle East. The course analyzes women's political, economic, familial, and sexual roles and the economic, demographic, ideological, and political forces which promoted change and continuity in these roles.

**GS 5033 Sexuality And Gender Theory: 3 semester hours**

Prerequisite: Graduate standing. Course examines the ways in which contemporary sexuality and gender theory have challenged and changed the study of culture and history. The course introduces students to sexuality and gender theory in late twentieth and early twenty-first century context-s.



**GS 5040 Feminist Critical Theory: 3 semester hours**

Prerequisites: Graduate Standing and consent of instructor. Same as ENGL 5040. A consideration of feminist critical theory as a means of reassessing literary texts and our cultural heritage. After exploring the roots of feminist criticism, the seminar will examine Anglo-American and continental debates on theories of language, writing and representation. In providing an interdisciplinary context the course will consider studies in psychology, anthropology, history, and philosophy/theology which have influenced and enriched feminist approaches to literature.

**GS 5053 Advanced Studies In African-American History: 3 semester hours**

Prerequisites: Graduate Standing. Course introduces some of the themes of African-American women's history. By examining the impact of region, gender, and class on African-American women's experiences across time, the course highlights black women's applied and theoretical contributions to feminist politics and activism as well as the black struggle for freedom and equality. Topics covered include: slavery and emancipation, institution and community building, the family and work, electoral politics and direct action protest, civil rights, and contemporary issues.

**GS 5320 Gender and Aging: 3 semester hours**

SAME AS GERON 5320. Prerequisites: Graduate standing or permission of instructor. This course examines advancing age through a gender lens. Men and women experience aging differently based on a host of genetic, biological, psychological, sociocultural and personal identity factors. This course challenges students to consider aging from various perspectives, including cultural expectations and norms, couple and family relationships, health and function, work life and retirement, sexual orientation, gender identity, concerns of LGBT elders, and veteran's issues.

**GS 5350 Topics In Women's And Gender Studies: 3 semester hours**

Prerequisites: Graduate standing and at least one Women's and Gender Studies course. This course will focus on a particular aspect of gender (to be announced prior to registration) and will draw upon recent theoretical and methodological work from a variety of disciplines.

**GS 5450 Special Topics In Gender Studies: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Special topics at the Graduate level examined from a gender perspective in the field of anthropology, art history, criminology, economics, English, foreign language, history philosophy, political science, psychology, social work, sociology, business, or others. Topics and departments vary by semester.

**GS 5500 Foundations Of Human Behavior In The Social Environment: 3 semester hours**

Same as SOC WK 5500. Prerequisites: SOC WK 3150 or equivalent or admission to the MSW program. Focuses on theoretical and empirical understanding of human behavior in the social environment using a life-span perspective. Introduces biological, behavioral, cognitive, and sociocultural theories of individuals, families, and small groups, and their implications for the professional social worker's understanding of socioeconomic status, gender, disability, ethnicity, race, and sexual orientation.

**GS 5635 Social Work Practice With Gay, Lesbian, Bisexual and Transgender Populations: 3 semester hours**

Same as SOC WK 5635. Prerequisites: SOC WK 5100 and SOC WK 5500. This advanced practice course focuses on developing the theoretical and empirical knowledge and practice skills necessary for effective social work practice with lesbian, gay male, bisexual, and transgender (LGBT) persons and their families. This course aims to explore deeper understanding of LGBT identities, families, health and mental health challenges, and issues of political advocacy.

**GS 5700 Diversity, Social Justice And Social Practice: 3 semester hours**

Same as SOC WK 5700. Prerequisites: Graduate Standing. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

**GS 5940 Seminar In Gender And Literature: 3 semester hours**

Same as ENGL 5940. Gender studies in literature of different periods, types, and genres; satisfies area requirement (1-6) appropriate to its period, national literature, and genre.

**GS 6350 Gender, Language and Identity: 3 semester hours**

Same as TCH ED 6350. Prerequisites: Graduate Standing. An interdisciplinary look at the ways gendered and racial identities get developed and shaped through language and culture. Readings will address the complex, yet sometimes invisible, ways that identity, language and gender intersect, creating and assigning roles, responsibilities, and possible selves to individuals and groups in a global world.

**GS 6353 Graduate Internship In Gender Studies: 1-6 semester hours**

Prerequisites: Graduate standing and consent of director. Provides an opportunity for the Graduate Women's and Gender Studies student to acquire "real world" experience working in a non-profit, political, economic, or social service organization with a gender focus.

**GS 6410 Women and Mental Health: 3 semester hours**

Same as PSYCH 7410. Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of the instructor. This course will focus on contemporary research on the psychology of women pertaining to mental health issues. Etiology and treatment of disorders disproportionately affecting women will be emphasized.

**GS 6446 Sex Crime: 3 semester hours**

Same as CRIMIN 6446. Prerequisites: Graduate Standing and consent of instructor. Examination of consensual and non-consensual sexual offending. Topics include historical development of laws regulating sexual conduct, controversies surrounding the application of these laws, and the nature and distribution of sexual offenses.

**GS 6450 Seminar In Gender Studies: 3 semester hours****GS 6452 Special Readings In Gender Studies: 3 semester hours**

## Higher Education

### Courses

**HIGHERED 5401 Current Issues In Higher Education: 3 semester hours**

Prerequisites: Graduate admission Familiarizes student with nature and characteristics of American higher education. Students learn about the structure of higher education, the roles played by the various constituencies, and current issues.

**HIGHERED 5402 Student Affairs Administration: 3 semester hours**

Prerequisite: Graduate Admission A survey course in student personnel administration with an emphasis on understanding the college student and on learning ways to meet both his/her academic and nonacademic needs.

**HIGHERED 6404 Seminar: 1-10 semester hours**

Prerequisite: Graduate standing.

**HIGHERED 6405 Financial Issues In Higher Education: 3 semester hours**

Prerequisite: Graduate standing Provides an overview of the state/federal funding mechanisms for higher education in the U.S. Addresses practices in budgeting at various types of postsecondary institutions.

**HIGHERED 6406 Governance Of Higher Education: 3 semester hours**

Prerequisites: Graduate admission Concentrates on the study of the unique system of governance in higher education, including faculty, instructional, system, and state governing mechanisms.

**HIGHERED 6408 Legal Issues in Student Affairs: 3 semester hours**

Prerequisite: Graduate Standing. Provides an exploration of the legal and philosophical principles that guide decision-making in higher education institutions and the courts. It also includes a detailed, in-depth analysis of legal cases that have an impact on students in private and public two- and four-year colleges and universities in the United States.

**HIGHERED 6409 Critical Issues in Student Affairs: 3 semester hours**

Prerequisites: Graduate Standing. Explores the historical development and foundational theories of the student affairs profession. This course also explores the organization and management of programs and services, the formulation of policies that guide student personnel service programs, and the integration of program elements, research, current problems and trends.

**HIGHERED 6410 Ethics in Higher Education Administration: 3 semester hours**

Prerequisites: Graduate standing. Students will examine the historical philosophical foundations of ethics and their implications for faculty, staff and students in the academic workplace.

**HIGHERED 6421 Legal Aspects Of Postsecondary Teaching: 3 semester hours**

Prerequisites: Graduate Admissions Examines legal issues of interest to faculty. Areas include faculty (contracts, grievances/appeals/affirmative action, free speech, tenure) and student (disability, sexual harassment, academic integrity, free speech, classroom incivility, student behavioral standards, grades) issues.

**HIGHERED 6422 Policy Analysis Of Higher Education: 3 semester hours**

Prerequisites: Graduate admission Introduces students to the analysis of higher education public policy. Includes state and local policy analysis and examination of legislative history of major federal higher education laws.

**HIGHERED 6430 The Community College: 3 semester hours**

Prerequisites: Graduate Admission The purpose of this course is to develop an understanding of the two-year college - its past, present and future. Examines history, operations, funding, internal constituents, curricular mission, societal role, and current issues.

**HIGHERED 6431 Community College Leadership: 3 semester hours**

Prerequisite: Graduate Admission Introduces students to leadership theory and practice and the literature of leadership development. Applies theory and practice to the unique role of the leader in community colleges, including the community college presidency. Particular emphasis is given to the diverse roles expected of the successful leader in today's community college.

**HIGHERED 6432 Current Issues In Community College Education: 3 semester hours**

A review and analysis of current issues affecting community college students, instruction, administration, policy and community relations. HIGHERED 6430, The Community College, is recommended before taking this course for those not currently working in community college settings.

**HIGHERED 6440 Issues In Institutional Research I: 3 semester hours**

Prerequisites: Graduate standing Provides a history and overview of institutional research in postsecondary education. Other areas of interest include student issues, student outcomes, higher education funding, productivity funding, and legal issues.

**HIGHERED 6441 Issues In Institutional Research II: 3 semester hours**

This course provides the study of key issues in institutional research, including faculty workload and salary, program assessment, fact books, peer institutions, national databases, and strategic planning.

**HIGHERED 6473 Curriculum In Higher Education: 3 semester hours**

Prerequisite: Graduate standing The development, implementation, and assessment of curriculum in higher education as well as historical and philosophical perspectives; major figures and emerging trends are included.

**HIGHERED 6474 The College Student: 3 semester hours**

Prerequisite: Graduate standing A comprehensive overview of the theories and research related to college and university student development. Particular attention is given to student demographics, patterns of growth and development, and attitudinal changes.

**HIGHERED 6476 Organization And Administration Of Higher Education: 3 semester hours**

Prerequisites: Graduate Standing This course includes the study of missions, governance, and organizational structures of American higher education institutions. Within this context, particular attention is given to administrative roles and responsibilities and issues of leadership.

**HIGHERED 6477 History And Philosophy Of American Higher Education: 3 semester hours**

Prerequisite: Graduate Standing This course is a systematic study of the historical and philosophical contexts that have conditioned the evolution of American higher education. Particular attention is given to significant events, trends, and movements within American higher education.

**HIGHERED 6497 Problems: 1-10 semester hours**

Prerequisites: Graduate standing and consent of instructor.

**HIGHERED 6900 Internship: 1-10 semester hours**

Prerequisites: Graduate standing and consent of instructor Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**HIGHERED 7800 Higher Education Doctoral Seminar: 1-6 semester hours**

Prerequisites: Doctoral standing or consent of instructor Intensive directed study of selected issues related to the administration of higher education institutions.

## Courses

**HIGHERED 5401 Current Issues In Higher Education: 3 semester hours**

Prerequisites: Graduate admission Familiarizes student with nature and characteristics of American higher education. Students learn about the structure of higher education, the roles played by the various constituencies, and current issues.

**HIGHERED 5402 Student Affairs Administration: 3 semester hours**

Prerequisite: Graduate Admission A survey course in student personnel administration with an emphasis on understanding the college student and on learning ways to meet both his/her academic and nonacademic needs.

**HIGHERED 6404 Seminar: 1-10 semester hours**

Prerequisite: Graduate standing.

**HIGHERED 6405 Financial Issues In Higher Education: 3 semester hours**

Prerequisite: Graduate standing Provides an overview of the state/federal funding mechanisms for higher education in the U.S. Addresses practices in budgeting at various types of postsecondary institutions.

**HIGHERED 6406 Governance Of Higher Education: 3 semester hours**

Prerequisites: Graduate admission Concentrates on the study of the unique system of governance in higher education, including faculty, instructional, system, and state governing mechanisms.

**HIGHERED 6408 Legal Issues in Student Affairs: 3 semester hours**

Prerequisite: Graduate Standing. Provides an exploration of the legal and philosophical principles that guide decision-making in higher education institutions and the courts. It also includes a detailed, in-depth analysis of legal cases that have an impact on students in private and public two- and four-year colleges and universities in the United States.

**HIGHERED 6409 Critical Issues in Student Affairs: 3 semester hours**

Prerequisites: Graduate Standing. Explores the historical development and foundational theories of the student affairs profession. This course also explores the organization and management of programs and services, the formulation of policies that guide student personnel service programs, and the integration of program elements, research, current problems and trends.

**HIGHERED 6410 Ethics in Higher Education Administration: 3 semester hours**

Prerequisites: Graduate standing. Students will examine the historical philosophical foundations of ethics and their implications for faculty, staff and students in the academic workplace.

**HIGHERED 6421 Legal Aspects Of Postsecondary Teaching: 3 semester hours**

Prerequisites: Graduate Admissions Examines legal issues of interest to faculty. Areas include faculty (contracts, grievances/appeals/affirmative action, free speech, tenure) and student (disability, sexual harassment, academic integrity, free speech, classroom incivility, student behavioral standards, grades) issues.

**HIGHERED 6422 Policy Analysis Of Higher Education: 3 semester hours**

Prerequisites: Graduate admission Introduces students to the analysis of higher education public policy. Includes state and local policy analysis and examination of legislative history of major federal higher education laws.

**HIGHERED 6430 The Community College: 3 semester hours**

Prerequisites: Graduate Admission The purpose of this course is to develop an understanding of the two-year college - its past, present and future. Examines history, operations, funding, internal constituents, curricular mission, societal role, and current issues.

**HIGHERED 6431 Community College Leadership: 3 semester hours**

Prerequisite: Graduate Admission Introduces students to leadership theory and practice and the literature of leadership development. Applies theory and practice to the unique role of the leader in community colleges, including the community college presidency. Particular emphasis is given to the diverse roles expected of the successful leader in today's community college.

**HIGHERED 6432 Current Issues In Community College Education: 3 semester hours**

A review and analysis of current issues affecting community college students, instruction, administration, policy and community relations. HIGHERED 6430, The Community College, is recommended before taking this course for those not currently working in community college settings.

**HIGHERED 6440 Issues In Institutional Research I: 3 semester hours**

Prerequisites: Graduate standing Provides a history and overview of institutional research in postsecondary education. Other areas of interest include student issues, student outcomes, higher education funding, productivity funding, and legal issues.

**HIGHERED 6441 Issues In Institutional Research II: 3 semester hours**

This course provides the study of key issues in institutional research, including faculty workload and salary, program assessment, fact books, peer institutions, national databases, and strategic planning.

**HIGHERED 6473 Curriculum In Higher Education: 3 semester hours**

Prerequisite: Graduate standing The development, implementation, and assessment of curriculum in higher education as well as historical and philosophical perspectives; major figures and emerging trends are included.

**HIGHERED 6474 The College Student: 3 semester hours**

Prerequisite: Graduate standing A comprehensive overview of the theories and research related to college and university student development. Particular attention is given to student demographics, patterns of growth and development, and attitudinal changes.

**HIGHERED 6476 Organization And Administration Of Higher Education: 3 semester hours**

Prerequisites: Graduate Standing This course includes the study of missions, governance, and organizational structures of American higher education institutions. Within this context, particular attention is given to administrative roles and responsibilities and issues of leadership.

**HIGHERED 6477 History And Philosophy Of American Higher Education: 3 semester hours**

Prerequisite: Graduate Standing This course is a systematic study of the historical and philosophical contexts that have conditioned the evolution of American higher education. Particular attention is given to significant events, trends, and movements within American higher education.

**HIGHERED 6497 Problems: 1-10 semester hours**

Prerequisites: Graduate standing and consent of instructor.

**HIGHERED 6900 Internship: 1-10 semester hours**

Prerequisites: Graduate standing and consent of instructor Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**HIGHERED 7800 Higher Education Doctoral Seminar: 1-6 semester hours**

Prerequisites: Doctoral standing or consent of instructor Intensive directed study of selected issues related to the administration of higher education institutions.

## History

### Courses

**HIST 1000 Selected Topics In History: 1-3 semester hours**

Prerequisite: Consent of Instructor Special topics in history. May be repeated for credit with consent of instructor.

**HIST 1001 American Civilization To 1865: 3 semester hours**

Evolution of the cultural tradition of the Americas from the earliest times to the mid-nineteenth century, with emphasis on the relationship of ideas and institutions to the historical background. Course fulfills the state requirement.



**HIST 1002 American Civilization 1865 To Present: 3 semester hours**

Continuation of HIST 1001 to the present. Course fulfills the state requirement. Either HIST 1001 or HIST 1002 taken separately.

**HIST 1003 African-American History: 3 semester hours**

A survey of African-American history from the beginning of the European slave trade to the modern Civil Rights era. This course meets the state requirement.

**HIST 1004 The History Of Women In The United States: 3 semester hours**

Same as GS 1004. A survey of women's history from the colonial era to the present.

**HIST 1030 The Ancient Empires of the Mediterranean: 3 semester hours**

Survey of ancient history in the near east, the Aegean, the central and western Mediterranean. Themes: politics and economy, war and society, culture, including art, literature, technology, religion and philosophy. The chronological span is from the neolithic period (7500-3000 B.C.) in the near east to the fall of the Roman Empire in the fifth century A.D.

**HIST 1031 Topics European Civilization: Emergence Of Western Europe To 1715: 3 semester hours**

Lectures and discussions on the development of western European society and tradition from approximately 1000 to 1715.

**HIST 1032 Topics In European Civilization: 1715 To The Present: 3 semester hours**

Lectures and discussions on the development of western European society and tradition from 1715 to the present.

**HIST 1037 The Wonders of Greece: Introduction to Greek History and Culture: 3 semester hours**

SAME AS ANTHRO 1037. Our democracy and culture have been heavily influenced by Greek civilization. This course will introduce students to the culture and civilization of Greece in order to provide a better understanding of our own society. The course will cover the political and military history, art, literature, philosophy, and science of Greece from prehistoric to modern times, with special emphasis on Greek civilization's enduring democratic and cultural ideals. The course will include screening of films and use of online resources.

**HIST 1038 Byzantine History and Culture: 3 semester hours**

Same as ANTHRO 1038. This course introduces the history of the Byzantine Empire from the fourth through the fifteen centuries. Covering more than a millennium of history, this course focuses on selected aspects of the empire's history, while adhering to a basic chronological frame. We will examine religious developments (monasticism, theological controversy, the Catholic-Orthodox Schism); military and cultural interactions with neighbors (Crusaders, Islam); and Byzantine culture, particularly art, literature, and architecture.

**HIST 1041 East Asian Civilization: 3 semester hours**

The development of Asian civilization from earliest times to the Manchu conquest.

**HIST 1042 East Asian Civilization: 3 semester hours**

Continuation of HIST 1041 with emphasis on the Asian response to the Western incursion. Either HIST 1041 or HIST 1042 may be taken separately.

**HIST 1051 Latin American Civilization: 3 semester hours**

A survey of selected topics important in the development of Latin America from pre-Columbian times to the twentieth century.

**HIST 1052 Mexican Civilization: 3 semester hours**

This course will focus on the history and culture of Mexico from the Aztecs to the mid-twentieth century. Among the topics to be covered are: the Aztecs, Cortez and the Conquest of Mexico, colonial institutions and culture, the obtaining of political independence, disorder and dictatorship in the nineteenth century, the Mexican Revolution, contemporary Mexico. This course meets the non-Euro-American requirement.

**HIST 1061 African Civilization: From The Beginning of Humanity to The End of The Slave Trade: 3 semester hours**

Introduction to cultural history from the emergence of early humankind to the abolition of the Atlantic slave trade. This course fulfills the Cultural Diversity requirement.

**HIST 1062 African Civilization II: From Colonies to Nations: 3 semester hours**

Survey of African initiative and response in the period spanning the loss and reassertion of independence. Either HIST 1061 or HIST 1062 may be taken separately.

**HIST 1075 World History to 1500: 3 semester hours**

A survey of the history of humankind to 1500 including the beginnings of civilization Mesopotamia, Africa, Asia and the Americas, the rise of Classical civilizations and the development of major transnational social, economic, political and religious networks.

**HIST 1076 World History Since 1500: 3 semester hours**

A survey of the history of humankind since 1500, emphasizing the growing interdependency of regional economic, political, and social systems. Topics will include imperialism, industrialization, and globalization.

**HIST 1111 Reacting to the Past: 4 semester hours**

Reacting to the Past is a series of historical simulations built around key moments and texts from the past. In each simulation, students are assigned a role and develop that character. The course offers students a rigorous academic experience in which they conduct historical research, speak, and write extensively. Because this course requires extensive writing, it fulfills the requirement for Freshman Composition.

**HIST 1776 History of American Leadership: 3 semester hours**

An introduction to the study of leaders in America that will cover different categories of political, cultural, social, and intellectual leadership and achievement. Crucial to the understanding of these categories is the question: how did leaders find their gift in becoming who they were and what leadership traits can be identified in the different categories under scrutiny.

**HIST 1999 Big History: From the Big Bang to the Blackberry: 9 semester hours**

SAME AS INTDSC 1999. An introduction to the humanities, social science, and science disciplines through a sweeping overview of natural and human history from the Big Bang to the present. Course will include lectures from faculty in various Arts and Sciences units, films, field trips, and group discussions.

**HIST 2000 Selected Topics In History: 1-4 semester hours**

Prerequisite: consent of instructor Special topics in history. The course may be repeated for credit with consent of the instructor.

**HIST 2001 Creating Early America: European Empires, Colonial Cultures, and Native Nations, 1565-1776: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. This content-rich course explores the transatlantic migrations and Indian interactions that laid the foundations of the American nation before 1776.



**HIST 2003 United States History: From Nation to Civil War: 3 semester hours**

Prerequisite: Soph standing or consent of the instructor. The "Era of Good Feelings"; the Age of Jackson; manifest destiny; the political and social developments of the antebellum period relating to the growth of sectionalism and the developing antislavery crusade.

**HIST 2004 United States History: The Civil War Era, 1860-1900: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor The Civil War, Reconstruction, industrial and urban expansion and their impact on American life.

**HIST 2005 The Modernization Of The United States: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor Studies in the economic, political and social development and crises of the maturing industrial United States between 1877 and 1940, and the growing importance of foreign relations.

**HIST 2006 Recent United States History: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. The economic, political and social developments and crises of post-industrial United States. The role of foreign affairs in American life.

**HIST 2007 History Of Missouri: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Lecture and readings. Seventeenth-century Spanish and French explorations and interaction with the Indians; settlement and organization of the Louisiana territory; lead mining and the fur trade; the Louisiana Purchase; the Missouri territory; the struggle for statehood and slavery; antebellum politics; banking and internal improvements; westward expansion; Civil War and reconstruction; postwar agrarian politics, industrialization; Irish, German, and southern European immigration; the Progressive reforms-- Political and economic changes; and twentieth-century social changes and political developments. Course satisfies the state requirement.

**HIST 2008 History Of St. Louis: 3 semester hours**

Prerequisites: Sophomore standing or the consent of the instructor This course will provide an overview of the history of the St. Louis metropolitan region from its founding in 1764 to the present. Main topics will include: the St. Louis region before the Europeans, forces leading to the founding of the city, St. Louis as an "urban frontier", the Age of Steam on water and rail, the questions of slavery and the Civil War, St. Louis in the Gilded Age, the World's Fair, early efforts at city planning, impact of the automobile, St. Louis during the Depression and World War II, post-war suburbanization, urban renewal St. Louis style, school desegregation, the Schoemehl years, the emergence of St. Louis "Edge Cities", and St. Louis 2004.

**HIST 2009 St. Louis And The West: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. An examination of the role St. Louis played in the evolution of the North American West, both in the United States and Canada, from the fur trade of the late eighteenth century to the opening of the Texas oil fields in the early twentieth century. Special emphasis will be given to competition between river and rail transportation corridors, and hence to the rivalry that developed between St. Louis and Chicago.

**HIST 2010 From Sea to Shining Sea: The American Frontier 1763 - 1890: 3 semester hours**

This is a history of the colonization of the Great West, from the end of the French and Indian War to the official closing of the frontier in 1890. The westward movement will be examined as a major factor in explaining American development.

**HIST 2011 American West: The Truth Behind the Hollywood Myths: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor An exploration of the history of the American West from the 1750s to present, with emphasis on the role of transportation. Urban gateways such as St. Louis and San Francisco and transportation corridors such as the Missouri River and the Santa Fe and Oregon trails will be of particular importance.

**HIST 2012 The Indian In American History: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. Investigates Native American encounters with non-Indian peoples between 1600 and 1900, analyzing how traditional Indian cultures changed to meet a variety of new challenges introduced to North America by Europeans and Africans. The approach will be interdisciplinary and ethnohistorical with emphasis placed on case studies of important native nations at key turning points in their history.

**HIST 2013 The Rise and Fall of American Cities: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. The physical and spatial growth of U.S. cities from colonial times to the present with special attention to the impact of industrialization, public policy, and advances in transportation technology.

**HIST 2015 Topics In African-American History: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Will explore a salient topic in African-American history. Such historical documents as personal narratives, letters, government documents, and autobiographies as well as monographs, articles, and other secondary sources will be used to explore topics such as slavery and slave culture in the United States; blacks and America's wars; the African-American intellectual tradition; or, African-Americans and the Great Migration.

**HIST 2016 African-American History: From Slavery to Civil Rights: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor: This course examines the impact of region, gender, and class on black activism by focusing on topics such as remembering slavery and emancipation, institution and community building during segregation, changing strategies in politics and protest, and the emergence of the direct action civil rights movement.

**HIST 2017 African-American History: From Civil Rights To Black Power: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. A seminar on the activities, ideas, movement centers, and personalities that created the Civil Rights and Black Power movements in the U.S. from the 1950's through the 1970's. Some familiarity with the broad contours of U.S. History is presupposed. Special attention will be devoted to the roles of the African-American masses, college students, and women, and to the points of conflict, cooperation, and intersection between African-America and the larger American society.

**HIST 2020 History of Women and Social Movements: 3 semester hours**

Same as GS 2020. Prerequisites: Sophomore standing or consent of the instructor. This course explores the history of women and social movements in the nineteenth and twentieth century United States. It considers social and political movements such as abolitionism, women's suffrage, progressivism, the labor movement, the civil rights movement, and second wave feminism.

**HIST 2022 The Automobile and American Life: 3 semester hours**

This course uses the automobile as a window into 20th-century American life. It examines the influence of automobility on patterns of work and leisure; on struggles over gender, race and ethnicity; on individualism, consumerism, and government regulation. It also surveys mass automobility's effects on our physical and natural environments and looks at future prospects of automobility in the information age.

**HIST 2023 US Foreign Relations and Military History To 1900: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor  
 Bulletin description: A survey of American foreign and military affairs to 1900, with particular emphasis on European conflicts, national expansion, Indian Wars, and the Mexican War.

**HIST 2024 US Foreign Relations and Military History Since 1900: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. A survey of American foreign and military affairs since 1900, with particular emphasis on the major wars during the period and the cold war era. Consideration of the nation's changing place in a changing world.

**HIST 2025 Topics in Military History: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. This course will examine a prominent military engagement in the past and consider strategic, diplomatic, and broad cultural aspects of the event. The particular military engagement investigated will vary from one semester to another. May be repeated if topics differ.

**HIST 2028 Sex, Drugs, and Rock 'n Roll: The 1960s in Song, Fashion, Dating, and Protest: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. This course examines the turbulent 1960s and the period's identification with sex, drugs, and rock 'n roll by looking historically at drugs, music, and changes in gender roles. It uses these histories to explore the cultural and political movements of the 1960s (1955 through 1973)-civil rights, black power, new left, antiwar, and feminist movements-along with the emergence of the counterculture, hallucinogenic drugs, the sexual revolution, and the whole hip scene. The class is discussion-based. There is a mid-term exam and several assignments, including a class presentation and papers on readings, music, and movies.

**HIST 2052 History Of Latin America Since 1808: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. Emphasis on the attainment of political independence and social, political, and economic developments of the nineteenth and twentieth centuries in Latin America. This course satisfies the cultural diversity requirement.

**HIST 2053 Modern Mexico: 3 semester hours**

Mexico from the Revolution to the present, covering major political, social, and cultural developments of the twentieth century including foreign population migration, the student movement of the 1960s, the rise and fall of the PRI, and the impacts of globalization.

**HIST 2063 African Diaspora To Abolition of the Slave Trade: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Comparative in scope, the course examines major themes in West and Central Africa and their impact on the history of Africans in the Atlantic diaspora up to 1800. Themes include: slavery, multi-racialism, economics of the South Atlantic system, political dimensions and the social transformation from heterogeneous crowds to new and homogeneous communities. Linkages between Africans and their descendants in the Atlantic communities of Latin America, the Caribbean, as well as North America will be stressed. This course fulfills the Cultural Diversity requirement.

**HIST 2064 African Diaspora in the Age of Migration: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Comparative in scope, this course uses a comparative methodology to examine the major themes in West and Central Africa and their impact on the history of Africans in the Atlantic diaspora after 1800. This course fulfills the Cultural Diversity requirement.

**HIST 2081 Rome: The Republic And Empire: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. A survey of the development of Roman political and cultural life from the Legendary founding of the city in central Italy in 753 BC to the death of the Emperor Justinian in 565 AD.

**HIST 2082 Christianity: From Jesus to Martin Luther: 3 semester hours**

The purpose of this course is to orient students in the scholarship about the Christian Church in the Western tradition as an institution. Open discussion is encouraged, and all traditions will be respected in the interest of expanding our knowledge of the past as well as the living communities today.

**HIST 2083 Europe In Early Middle Ages: Paganism to Christianity: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. The end of the Roman Empire as a universal entity; the successor states of the Mediterranean and Northern Europe; the emergence of a Western Christendom under the Franks; the development of feudal states; the Gregorian reforms; the Crusades; the revival of education and learning in the twelfth century.

**HIST 2084 Crusades and Plagues: Europe In The High And Late Middle Ages: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. Medieval society at its political, economic, and intellectual zenith; the crisis of the later Middle Ages; the Papal schism and the development of national particular churches within Catholicism; and the rise of estate institutions.

**HIST 2085 Medieval England: From Arthur to Richard III: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. A brief summary of the Anglo-Saxon heritage and the impact of the Norman Conquest, followed by an investigation of the institutional, social, and legal evolution of the realm of England. English development will be viewed in its European context.

**HIST 2086 Reformation of Europe: Beyond Religion: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. Religious, intellectual, political, and socioeconomic developments of the sixteenth century.

**HIST 2088 Europe and the Renaissance: Not Just for Painters Anymore: 3 semester hours**

Prerequisites: Sophomore Standing or consent of the instructor. The Italian and Northern Renaissance as a distinct age; political, socioeconomic, intellectual, religious, and artistic movements attending the decline of medieval society, and the transition to the early modern period.

***HIST 2089 Religion, Philosophy & Science in History: Introduction to The Intellectual History Of The West: 3 semester hours***

Sophomore standing or consent of instructor. An examination of some of the most important ideas and debates that shaped the Western world. Topics include Platonic versus Aristotelian models of the universe, Medieval synthesis and the challenge of Renaissance naturalism, the Scientific Revolution, the political ideas of Thomas Hobbes, John Locke, and Jean-Jacques Rousseau, romanticism, Marxism, Darwinian evolution, Freudian psychology, existentialism, structuralism and poststructuralism.

***HIST 2090 Europe in the Eighteenth Century: From the Glorious Revolution to the Napoleonic Era: 3 semester hours***

Prerequisite: Sophomore standing or consent of instructor. This course offers intensive study of Europe in the period between the Glorious Revolution in England in 1688 and the fall of Napoleon in 1815. Particular emphasis will be placed on the theme of the rise of the modern. Specifically, the course will examine the struggle by intellectuals, politicians, and military figures to move Europe forward from the old regime system. Particular emphasis will be placed on the works of Voltaire, Rousseau, Locke, and Paine.

***HIST 2091 Europe in the Nineteenth Century: From Waterloo to World War I: 3 semester hours***

Prerequisites: Sophomore standing or Consent of Instructor. This course offers intensive study of Europe in the period between the fall of Napoleon in 1815 and the turn-of-twentieth century. Particular emphasis will be placed on the themes of industrialization, overseas colonization, and the development of nationalist, socialist, and liberal ideas.

***HIST 2095 History of Ireland: 3 semester hours***

This course will explore Irish history from medieval to modern times. Topics will include issues of land, settlement, immigration, and modernization.

***HIST 2102 Introduction To Gender Studies: 3 semester hours***

Same as GS 2102, SOC WK 2102, and SOC 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

***HIST 2105 Sex in America: 3 semester hours***

Prerequisites: Sophomore Standing or consent of the instructor. Dissected, categorized, evaluated, feared, and enjoyed: sex in America's past, including our current obsession with it, is the primary concern of this course. Why and how have sex and sexuality become so central to identities, culture, politics, and now, our history? This course explores the complex and often hidden history of sex in the United States. It uses sex to examine big political ideas of citizenship, democracy, and cultural inclusion.

***HIST 2116 History of Greece and The Balkans: 3 semester hours***

Prerequisites: Sophomore standing or consent of the instructor. This course is designed to introduce students to the history of the Balkans with particular emphasis on Greece. Although a part of the course will deal with nation building and nationalism, we will also examine the broad historical trends that have shaped the distinct cultural, social, and political developments in the region from the late 18th century until the end of the 20th century.

***HIST 2117 Greek History And Culture: 3 semester hours***

Same as ANTHRO 2117. Greek civilization has had a deep impact on contemporary society in art; social, political, and economic organization; philosophy; law; medicine; and science. This course covers major aspects of Greek history and culture from antiquity to the present. It considers the major political and military events of Greek History, as well as important aspects of Greek culture, including sports and the history of the Olympic Games, literature, philosophy, and mythology.

***HIST 2118 Modern Greek History and Culture: 3 semester hours***

Same as ANTHRO 2118. A history of Modern Greece, from the fall of Constantinople (1453) to the present, with an emphasis on social, cultural, and political developments. The course will provide a chronological framework of events and it will utilize art, literature, and folklore, along with traditional historical sources, to gain a better understanding of the richness of modern Greek history and culture.

***HIST 2219 United States Labor History: 3 semester hours***

Examines the history of work and the working class in the United States. It focuses on the transformation of the workplace, the evolution of working class consciousness and the development of the labor movement, the role of race, gender and ethnicity in uniting or dividing the working class, and the nature of labor's relations with other social groups in the political arena. Particular emphasis on the political and economic conditions and strategies of periods when working class power was growing.

***HIST 2770 Introduction To Transportation: 3 semester hours***

Prerequisites: Sophomore standing or consent of instructor. Introduction to Transportation provides an overview of the transportation sector, including history, providers, users, and government regulation. The importance and significance of transportation modes of rail, water, motor, air, and pipeline: the demand and supply of transportation, and the managerial aspects of these modes of transport will be covered in the course.

***HIST 2772 History Of Aviation In American Life: 3 semester hours***

Prerequisites: Sophomore standing or consent of instructor. Course focuses on the history of aviation in the United States from balloon flights preceding the Wright brothers through the terrorist attacks in September 2001 with emphasis upon how aviation and aviators have influenced American society and culture. Themes include the evolution of aviation technology, the growth of the commercial/military aviation/aerospace industries, issues of race and gender in aviation, the development of America's commercial airlines, aviation's influence upon American art, films, advertising, and literature, the significance of the space race, and the role of aerial weapons of war.

***HIST 2773 Urbanization And Transportation: 3 semester hours***

Prerequisites: Sophomore standing or consent of instructor. Course provides an overview of urbanization and transportation in the United States. Besides examining the history of urbanization and transportation, this course offers comparisons between contemporary international urban areas for the purpose of placing the US experience in context. Additionally, the course covers key issues surrounding the planning, development, and consequences of infrastructure facilitating the movement of people and freight in the urban setting, such as financing, transport technologies, political policies, economic growth, and demographic trends.



**HIST 2800 History Of American Economic Development: 3 semester hours**

Same as ECON 2800. Prerequisites: ECON 1000 or ECON 1001 or consent of instructor. Uses economic concepts to explain historical developments in the American economy, beginning with the hunter gatherers who crossed the Bering land bridge around 12,000 BC. Main topics include the Native American economies, European exploration and conquest, the colonial economies, indentured servitude, the American Revolution, the US Constitution, westward expansion, transportation, the Industrial Revolution, state banking and free banking, slavery, the Civil War, post-bellum agriculture, the rise of big business and antitrust, banking panics, the Federal Reserve Act, the First and Second World Wars, the New Deal, and the growth of government in postwar economy.

**HIST 2999 Introduction to Historical Inquiry: 4 semester hours**

Prerequisites: Sophomore standing or consent of instructor. This course is designed to develop historical thinking skills. Emphasis will be placed on reading of historical sources, exploring the rhetoric of history, identifying perspectives in historical sources, and the process of formulating historical questions. Other topics covered will include proper citation procedures and historiography. The course is writing intensive and will involve primary source research at libraries and archives.

**HIST 3000 Selected Topics In History: 3 semester hours**

Prerequisite: Junior standing or consent of instructor. Special topics in history to be determined by the field, availability of instructors and interest of students. The course may be repeated for credit with the consent of the instructor.

**HIST 3031 Modern Japan: From the Meiji Restoration to the Present: 3 semester hours**

Prerequisite: Junior Standing Or Consent Of Instructor. The Economic, Social, And Political Development Of Modern Japan.

**HIST 3032 Modern China: From the Decline of the Qing Empire to the Global Age: 3 semester hours**

Prerequisite: Junior Standing Or Consent Of Instructor. The Economic, Social, And Political Development Of Modern China.

**HIST 3033 Modern History Of The Asian Pacific Rim: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. A course on the modern history of the broad economic region of East and Southeast Asia as well as the region's interaction with the United States. The course is designed for students who need to understand the political and economic dynamics of the countries around the Pacific Basin and the historical roots of various problems.

**HIST 3034 History of Technology and Environment in China: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. Course explores how the Chinese used technology to manage the economy, environment and disasters which paralleled developments in the West. Discussions on the political function of Chinese science and technology, and on its continued influence on Chinese culture and society.

**HIST 3041 Topics In American Constitutional History: 3 semester hours**

Prerequisite: Junior standing or consent of instructor. Origins and development of the principal institutions and ideas of the American constitutional systems; the role of the constitution and the Supreme Court in the growth of the nation; important Supreme Court decisions; great American jurists and their impact upon the law; historical background to current constitutional issues.

**HIST 3043 History Of Crime And Justice: 3 semester hours**

Same as CRIMIN 3043. Prerequisites: Junior standing or consent of instructor. The analysis, development, and change in philosophies and responses to crime. Emphasis on major forms and definitions of crime, the emergence of modern policing, the birth of the prison, and the juvenile court system.

**HIST 3051 Latin America: From Conquest to Independence: 3 semester hours**

Prerequisites: Junior standing or consent of Instructor. Latin America from the pre-Columbian Civilizations to 1808, stressing social, political, and economic institutions in the Spanish colonies. This course satisfies the Cultural Diversity requirement.

**HIST 3092 Europe, 1900-1950: War And Upheaval: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. The impact of World Wars I and II and the search for equilibrium.

**HIST 3093 Europe, 1950-Present: Peace And Prosperity: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. A survey of the main social, economic, political, military, and cultural trends in Europe since the outbreak of World War II.

**HIST 3097 Spain: From Superpower to Napoleon's Puppet: 3 semester hours**

Prerequisite: Junior standing or consent of instructor A survey of Spanish history from the fifteenth century, emphasizing its period of imperial greatness and examining the effects of empire on national development.

**HIST 4001 Special Readings: 1-10 semester hours**

Prerequisite: Consent of the instructor. Independent study through readings, reports and conferences.

**HIST 4002 Collaborative Research: 3 semester hours**

Prerequisite: Consent of instructor Faculty-student collaboration on a research project designed to lead toward the publication of a jointly-authored article. The faculty member will direct the research.

**HIST 4003 Internship: 3-6 semester hours**

Prerequisites: Consent of Supervising instructor and instituon offering the internship Supervised practicum in a museum, historical agency, and other institution offering an opportunity for hands-on experience in public history. This elective course supplements but does not replace the requirements for a baccalaureate degree in history. May not be taken for graduate credit.

**HIST 4014 World History For The Secondary Classroom: 3 semester hours**

Prerequisites: TCH ED 3310 or consent of the instructor. This course is required for Social Studies certification. Adapts the themes and subject matter of World History to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting themes of World history, on expanding bibliography, and on choosing methods of inquiry for use in an interactive classroom. Cannot be counted towards the minimum 39-hour history major requirement, but can be counted towards the 45 hour maximum and for Social Studies Certification. Not available for graduate credit.

**HIST 4142 Inquiries in U.S. History: 3 semester hours**

Prerequisites: HIST 2999. This course will develop historical thinking and writing skills through investigation in topics in National History.

**HIST 4143 Inquiries in World History: 3 semester hours**

Prerequisites: HIST 2999. This course will develop historical thinking and writing skills through investigation in topics in World History.



**HIST 4999 Senior Seminar: 5 semester hours**

Prerequisites: HIST 2999, consent of department and presentation of three examples of formal written work submitted in prior upper-division courses in history. Studies in historical methodology and historiography. Directed readings, research, and writing leading to the production of an original piece of historical scholarship. An exit interview is required. Senior seminar is required of all history majors. May not be taken for graduate credit.

**HIST 5000 Advanced Selected Topics In History: 3 semester hours**

Prerequisite: Graduate standing Special topics in history. The course may be repeated for credit with consent of the instructor.

**HIST 5142 Advanced Inquiries in U.S. History: 3 semester hours**

Prerequisite: Graduate standing. This course will develop historical thinking and writing skills through investigation in topics in United States history.

**HIST 5143 Advanced Inquiries in World History: 3 semester hours**

Prerequisite: Graduate standing This course will develop historical thinking and writing skills through investigation in topics in World history.

**HIST 5592 The History of the Visual Arts in American Museums: 3 semester hours**

Same as ANTHRO 5592 and ART HS 5592. Prerequisites: Graduate Standing and consent of instructor. This course is an introduction to selected topics in the history of museology, focusing on art and anthropology museums as sites for the interpretations of art and culture, and as contested meeting grounds for various views of history and culture.

**HIST 6000 The Historian's Craft: 1-3 semester hours**

This course will introduce incoming students to graduate work, both in the field of history generally and to the M.A. program at UM-St. Louis in particular. It will familiarize them with the fields of historical study and the UMSL faculty who teach them, protocols of the profession, and methodologies of historical research, writing, and analysis. It will also help students learn about and prepare for careers outside the academy and/or Ph.D. programs in the field. Students may be required to attend colloquia off campus.

**HIST 6001 Introduction to Public History and Cultural Heritage: 3 semester hours**

Prerequisites: Graduate Standing or Consent of Instructor. This seminar will introduce students to the theory and practice of public history and cultural heritage. Readings will acquaint students with these fields of study and offer commentary on a variety of strategies for making the past relevant for contemporary audiences.

**HIST 6013 Historical and Theoretical Foundations of US History in Schools and Communities: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor The intent of this course is to foster critical inquiry into school and public presentations of historical knowledge. Particular emphasis will be placed on defining the broad and connecting themes of U.S. History and the political and cultural struggles that have shaped school curriculum and public discussion since the nineteenth century.

**HIST 6014 World History For The Secondary School Classroom: 3-6 semester hours**

Prerequisites: Graduate standing or consent of instructor The intent of this course is to adapt the themes and subject matter of World history to the secondary classroom and to train teachers in the methodology of Socratic symposium, techniques designed to maximize the use of sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting themes of World history, on expanding bibliography, and on methods for choosing primary sources for use in an interactive classroom. HIST 6014 may not be used to meet history degree requirements.

**HIST 6102 Readings In American History Since 1865: 3-5 semester hours**

Prerequisites: Graduate standing and consent of instructor. Directed readings and writing on selected topics and areas in American history since 1865.

**HIST 6115 Historical Thinking in Theory and Practice I: 3 semester hours**

Same as TCH ED 6115. Prerequisites: Graduate Standing or consent of instructor. This course explores theoretical and research literature on historical thinking. It further examines effective teaching strategies and curriculum materials that facilitate historical thinking and reading skills while also broadening content knowledge. It will familiarize students with text and web-based resources available for instruction.

**HIST 6116 Historical Thinking in Theory and Practice II: 3 semester hours**

Same as HIST 6116. Prerequisites: HIST 6115 / TCH ED 6115 or consent of instructor. Building upon HIST 6115 / TCH ED 6115, this course emphasizes the design, implementation, and assessment of teaching materials and practices that foster historical thinking and reading. In this hands-on, action research course, students will focus on their own teaching materials and practices to improve their capacity to teach and assess students' historical thinking.

**HIST 6121 Directed Readings: 1-3 semester hours**

Prerequisites: Consent of a member of the Doctoral Faculty. Directed research at the graduate level.

**HIST 6122 Collaborative Research: 3-6 semester hours**

Prerequisites: Graduate Standing and Consent of Instructor Faculty-student collaboration on a research project designed to lead toward the publication of a jointly-authored article. The faculty member will direct the research.

**HIST 6123 Thesis Seminar: 1-6 semester hours**

Prerequisites: Graduate standing and consent of instructor. Thesis research and writing on a selected topic in history.

**HIST 6124 Graduate Internship: 3 semester hours**

Prerequisites: Consent of supervising instructor and institution offering the internship. Supervised practicum in a museum, historical agency, and other institution offering an opportunity for hands-on experience in public history.

**HIST 6125 Practicum in Public History and Cultural Heritage: 3 semester hours**

Prerequisites: Graduate Standing or Consent of Instructor. In collaboration with a designated community partner, students will research and interpret the past for contemporary audiences. The course will combine traditional classroom sessions with hands-on training.

**HIST 6130 Collections Management and Registration: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. Most of the institutions that we call museums collect objects. A collecting institution requires a collections manager or a registrar to track, manage, and insure the safety of its objects, whether it collects art, artifacts, specimens, or live organisms. This course covers collections care and management from acquisition to evaluation, documentation, care, storage (or maintenance), loans, exhibitions, contracts, risk preparedness, and policy-making. It focuses on the practical knowledge and skills needed for collections management and registration. While much of the course material is drawn from historical, ethnographic, and art collections, the basic principles apply broadly to all collecting institutions.

**HIST 6131 Museum Origins and Evolution: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. This course traces the social and cultural history of museums from their origins in curiosity cabinets, princely collections, freak shows, and exhibitions, through their late 19th and early 20th century institutionalization, to present-day developments such as blockbuster exhibitions, community collaborations, masterpiece architecture, and the spread of museal and heritage institutions around the globe. Topics include colonialism, modernity, and the production of taxonomical knowledge; museums and nationalism; theories of culture, patrimony, and ownership; manufacture, marketing, and museums; the relationships between museums and academia; identity politics and culture wars; community-based initiatives; and virtual and digital museum spaces.

**HIST 6132 Digital Video for Museums and Community History: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. This course covers basic production and post-production in digital video, and examines how digital video has been and can be used for community history projects and museum installations. Students will learn basics of shooting, lighting, sound, scripting, and non-linear editing; interviewing and observational footage; and produce a series of documentary shorts. Readings will include the special characteristics of the cinematic medium and case studies of digital video for community-based research, advocacy, and museum audiences.

**HIST 6133 Museums and History in the Digital Age: 3 semester hours**

This course introduces and explores the key issues, analyses, critical debates, opportunities and potential drawbacks for museums and public historians using digital media to engage with communities. Students will gain facility in implementing digital strategies for museum and public history initiatives, including how to plan, manage, and assess the success of media projects.

**HIST 6134 History Curatorship: 5 semester hours**

Prerequisites: Graduate standing and consent of instructor. Principles and practices of curatorship in history museums. Historiography and research in material culture; theoretical foundations; methodologies for collecting and curating collections; legal and ethical issues; interpretation; role of the history curator in exhibit and program development; responsibilities to the community.

**HIST 6135 Foundations Of Museology I: 3 semester hours**

Same as ART HS 6035 and ANTHRO 6135. Prerequisites: Consent of Director of Museum Studies Program. Concepts for understanding museums in their social and cultural context; history of museums; museology and general social theory; information transfer vs meaning-making models; museums and communities; the changing role of museums; museums as complex organizations; process models of museology.

**HIST 6137 Museum Organization and Operations: 3 semester hours**

Same as ART HS 6037 and ANTHRO 6137. Prerequisites: Consent of Director of Museum Studies Program. This course looks at museum organization and operations in the 21st century. As museums become more focused on visitors, communities, and private donors, their structures, staffing, and practices have changed. This course introduces students to the wide range of museum professions, the evolving function of museums, the effects of new technologies, and the challenges of administration and funding in constrained economic circumstances. The course includes scrutiny of ethical issues such as disputed collections, intellectual property rights, organizational conflicts, and community collaboration and planning.

**HIST 6138 Museum Studies Master's Project: 5 semester hours**

Same as ART HS 6038 and ANTHRO 6138. Prerequisites: Consent of Director of Museum Studies Program. Research and writing/ exhibit development on a selected topic.

**HIST 6140 Readings in Metropolitan History: 3-5 semester hours**

Prerequisite: Graduate Standing Directed readings and writing on selected topics and areas in Metropolitan History.

**HIST 6141 Readings in Regional History: 3-5 semester hours**

Prerequisite: Graduate Standing Directed readings and writing on selected topics and areas in Regional History.

**HIST 6142 Readings in U.S. History: 3-5 semester hours**

Prerequisite: Graduate Standing. Directed readings and writing in selected topics and areas in United States History.

**HIST 6143 Readings in World History: 3-5 semester hours**

Prerequisite: Graduate Standing. Directed readings and writing on selected topics and areas in World History.

**HIST 6150 Directed Readings in Metropolitan History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

**HIST 6151 Directed Readings in Regional History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

**HIST 6152 Directed Readings in U.S. History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

**HIST 6153 Directed Readings in World History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

## Courses

**HIST 1000 Selected Topics In History: 1-3 semester hours**

Prerequisite: Consent of Instructor Special topics in history. May be repeated for credit with consent of instructor.

**HIST 1001 American Civilization To 1865: 3 semester hours**

Evolution of the cultural tradition of the Americas from the earliest times to the mid-nineteenth century, with emphasis on the relationship of ideas and institutions to the historical background. Course fulfills the state requirement.

**HIST 1002 American Civilization 1865 To Present: 3 semester hours**

Continuation of HIST 1001 to the present. Course fulfills the state requirement. Either HIST 1001 or HIST 1002 taken separately.

**HIST 1003 African-American History: 3 semester hours**

A survey of African-American history from the beginning of the European slave trade to the modern Civil Rights era. This course meets the state requirement.

**HIST 1004 The History Of Women In The United States: 3 semester hours**

Same as GS 1004. A survey of women's history from the colonial era to the present.

**HIST 1030 The Ancient Empires of the Mediterranean: 3 semester hours**

Survey of ancient history in the near east, the Aegean, the central and western Mediterranean. Themes: politics and economy, war and society, culture, including art, literature, technology, religion and philosophy. The chronological span is from the neolithic period (7500-3000 B.C.) in the near east to the fall of the Roman Empire in the fifth century A.D.

**HIST 1031 Topics European Civilization: Emergence Of Western Europe To 1715: 3 semester hours**

Lectures and discussions on the development of western European society and tradition from approximately 1000 to 1715.

**HIST 1032 Topics In European Civilization: 1715 To The Present: 3 semester hours**

Lectures and discussions on the development of western European society and tradition from 1715 to the present.

**HIST 1037 The Wonders of Greece: Introduction to Greek History and Culture: 3 semester hours**

SAME AS ANTHRO 1037. Our democracy and culture have been heavily influenced by Greek civilization. This course will introduce students to the culture and civilization of Greece in order to provide a better understanding of our own society. The course will cover the political and military history, art, literature, philosophy, and science of Greece from prehistoric to modern times, with special emphasis on Greek civilization's enduring democratic and cultural ideals. The course will include screening of films and use of online resources.

**HIST 1038 Byzantine History and Culture: 3 semester hours**

Same as ANTHRO 1038. This course introduces the history of the Byzantine Empire from the fourth through the fifteen centuries. Covering more than a millennium of history, this course focuses on selected aspects of the empire's history, while adhering to a basic chronological frame. We will examine religious developments (monasticism, theological controversy, the Catholic-Orthodox Schism); military and cultural interactions with neighbors (Crusaders, Islam); and Byzantine culture, particularly art, literature, and architecture.

**HIST 1041 East Asian Civilization: 3 semester hours**

The development of Asian civilization from earliest times to the Manchu conquest.

**HIST 1042 East Asian Civilization: 3 semester hours**

Continuation of HIST 1041 with emphasis on the Asian response to the Western incursion. Either HIST 1041 or HIST 1042 may be taken separately.

**HIST 1051 Latin American Civilization: 3 semester hours**

A survey of selected topics important in the development of Latin America from pre-Columbian times to the twentieth century.

**HIST 1052 Mexican Civilization: 3 semester hours**

This course will focus on the history and culture of Mexico from the Aztecs to the mid-twentieth century. Among the topics to be covered are: the Aztecs, Cortez and the Conquest of Mexico, colonial institutions and culture, the obtaining of political independence, disorder and dictatorship in the nineteenth century, the Mexican Revolution, contemporary Mexico. This course meets the non-Euro-American requirement.

**HIST 1061 African Civilization: From The Beginning of Humanity to The End of The Slave Trade: 3 semester hours**

Introduction to cultural history from the emergence of early humankind to the abolition of the Atlantic slave trade. This course fulfills the Cultural Diversity requirement.

**HIST 1062 African Civilization II: From Colonies to Nations: 3 semester hours**

Survey of African initiative and response in the period spanning the loss and reassertion of independence. Either HIST 1061 or HIST 1062 may be taken separately.

**HIST 1075 World History to 1500: 3 semester hours**

A survey of the history of humankind to 1500 including the beginnings of civilization Mesopotamia, Africa, Asia and the Americas, the rise of Classical civilizations and the development of major transnational social, economic, political and religious networks.

**HIST 1076 World History Since 1500: 3 semester hours**

A survey of the history of humankind since 1500, emphasizing the growing interdependency of regional economic, political, and social systems. Topics will include imperialism, industrialization, and globalization.

**HIST 1111 Reacting to the Past: 4 semester hours**

Reacting to the Past is a series of historical simulations built around key moments and texts from the past. In each simulation, students are assigned a role and develop that character. The course offers students a rigorous academic experience in which they conduct historical research, speak, and write extensively. Because this course requires extensive writing, it fulfills the requirement for Freshman Composition.

**HIST 1776 History of American Leadership: 3 semester hours**

An introduction to the study of leaders in America that will cover different categories of political, cultural, social, and intellectual leadership and achievement. Crucial to the understanding of these categories is the question: how did leaders find their gift in becoming who they were and what leadership traits can be identified in the different categories under scrutiny.

**HIST 1999 Big History: From the Big Bang to the Blackberry: 9 semester hours**

SAME AS INTDSC 1999. An introduction to the humanities, social science, and science disciplines through a sweeping overview of natural and human history from the Big Bang to the present. Course will include lectures from faculty in various Arts and Sciences units, films, field trips, and group discussions.

**HIST 2000 Selected Topics In History: 1-4 semester hours**

Prerequisite: consent of instructor Special topics in history. The course may be repeated for credit with consent of the instructor.

**HIST 2001 Creating Early America: European Empires, Colonial Cultures, and Native Nations, 1565-1776: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. This content-rich course explores the transatlantic migrations and Indian interactions that laid the foundations of the American nation before 1776.

**HIST 2003 United States History: From Nation to Civil War: 3 semester hours**

Prerequisite: Soph standing or consent of the instructor. The "Era of Good Feelings"; the Age of Jackson; manifest destiny; the political and social developments of the antebellum period relating to the growth of sectionalism and the developing antislavery crusade.

**HIST 2004 United States History: The Civil War Era, 1860-1900: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor The Civil War, Reconstruction, industrial and urban expansion and their impact on American life.

**HIST 2005 The Modernization Of The United States: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor Studies in the economic, political and social development and crises of the maturing industrial United States between 1877 and 1940, and the growing importance of foreign relations.

**HIST 2006 Recent United States History: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. The economic, political and social developments and crises of post-industrial United States. The role of foreign affairs in American life.

**HIST 2007 History Of Missouri: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Lecture and readings. Seventeenth-century Spanish and French explorations and interaction with the Indians; settlement and organization of the Louisiana territory; lead mining and the fur trade; the Louisiana Purchase; the Missouri territory; the struggle for statehood and slavery; antebellum politics; banking and internal improvements; westward expansion; Civil War and reconstruction; postwar agrarian politics, industrialization; Irish, German, and southern European immigration; the Progressive reforms-- Political and economic changes; and twentieth-century social changes and political developments. Course satisfies the state requirement.

**HIST 2008 History Of St. Louis: 3 semester hours**

Prerequisites: Sophomore standing or the consent of the instructor This course will provide an overview of the history of the St. Louis metropolitan region from its founding in 1764 to the present. Main topics will include: the St. Louis region before the Europeans, forces leading to the founding of the city, St. Louis as an "urban frontier", the Age of Steam on water and rail, the questions of slavery and the Civil War, St. Louis in the Gilded Age, the World's Fair, early efforts at city planning, impact of the automobile, St. Louis during the Depression and World War II, post-war suburbanization, urban renewal St. Louis style, school desegregation, the Schoemehl years, the emergence of St. Louis "Edge Cities", and St. Louis 2004.

**HIST 2009 St. Louis And The West: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. An examination of the role St. Louis played in the evolution of the North American West, both in the United States and Canada, from the fur trade of the late eighteenth century to the opening of the Texas oil fields in the early twentieth century. Special emphasis will be given to competition between river and rail transportation corridors, and hence to the rivalry that developed between St. Louis and Chicago.

**HIST 2010 From Sea to Shining Sea: The American Frontier 1763 - 1890: 3 semester hours**

This is a history of the colonization of the Great West, from the end of the French and Indian War to the official closing of the frontier in 1890. The westward movement will be examined as a major factor in explaining American development.

**HIST 2011 American West: The Truth Behind the Hollywood Myths: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor An exploration of the history of the American West from the 1750s to present, with emphasis on the role of transportation. Urban gateways such as St. Louis and San Francisco and transportation corridors such as the Missouri River and the Santa Fe and Oregon trails will be of particular importance.

**HIST 2012 The Indian In American History: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. Investigates Native American encounters with non-Indian peoples between 1600 and 1900, analyzing how traditional Indian cultures changed to meet a variety of new challenges introduced to North America by Europeans and Africans. The approach will be interdisciplinary and ethnohistorical with emphasis placed on case studies of important native nations at key turning points in their history.

**HIST 2013 The Rise and Fall of American Cities: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. The physical and spatial growth of U.S. cities from colonial times to the present with special attention to the impact of industrialization, public policy, and advances in transportation technology.

**HIST 2015 Topics In African-American History: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Will explore a salient topic in African-American history. Such historical documents as personal narratives, letters, government documents, and autobiographies as well as monographs, articles, and other secondary sources will be used to explore topics such as slavery and slave culture in the United States; blacks and America's wars; the African-American intellectual tradition; or, African-Americans and the Great Migration.

**HIST 2016 African-American History: From Slavery to Civil Rights: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor: This course examines the impact of region, gender, and class on black activism by focusing on topics such as remembering slavery and emancipation, institution and community building during segregation, changing strategies in politics and protest, and the emergence of the direct action civil rights movement.

**HIST 2017 African-American History: From Civil Rights To Black Power: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. A seminar on the activities, ideas, movement centers, and personalities that created the Civil Rights and Black Power movements in the U.S. from the 1950's through the 1970's. Some familiarity with the broad contours of U.S. History is presupposed. Special attention will be devoted to the roles of the African-American masses, college students, and women, and to the points of conflict, cooperation, and intersection between African-America and the larger American society.

**HIST 2020 History of Women and Social Movements: 3 semester hours**

Same as GS 2020. Prerequisites: Sophomore standing or consent of the instructor. This course explores the history of women and social movements in the nineteenth and twentieth century United States. It considers social and political movements such as abolitionism, women's suffrage, progressivism, the labor movement, the civil rights movement, and second wave feminism.



**HIST 2022 The Automobile and American Life: 3 semester hours**

This course uses the automobile as a window into 20th-century American life. It examines the influence of automobility on patterns of work and leisure; on struggles over gender, race and ethnicity; on individualism, consumerism, and government regulation. It also surveys mass automobility's effects on our physical and natural environments and looks at future prospects of automobility in the information age.

**HIST 2023 US Foreign Relations and Military History To 1900: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor  
 Bulletin description: A survey of American foreign and military affairs to 1900, with particular emphasis on European conflicts, national expansion, Indian Wars, and the Mexican War.

**HIST 2024 US Foreign Relations and Military History Since 1900: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. A survey of American foreign and military affairs since 1900, with particular emphasis on the major wars during the period and the cold war era. Consideration of the nation's changing place in a changing world.

**HIST 2025 Topics in Military History: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. This course will examine a prominent military engagement in the past and consider strategic, diplomatic, and broad cultural aspects of the event. The particular military engagement investigated will vary from one semester to another. May be repeated if topics differ.

**HIST 2028 Sex, Drugs, and Rock 'n Roll: The 1960s in Song, Fashion, Dating, and Protest: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. This course examines the turbulent 1960s and the period's identification with sex, drugs, and rock 'n roll by looking historically at drugs, music, and changes in gender roles. It uses these histories to explore the cultural and political movements of the 1960s (1955 through 1973)-civil rights, black power, new left, antiwar, and feminist movements-along with the emergence of the counterculture, hallucinogenic drugs, the sexual revolution, and the whole hip scene. The class is discussion-based. There is a mid-term exam and several assignments, including a class presentation and papers on readings, music, and movies.

**HIST 2052 History Of Latin America Since 1808: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. Emphasis on the attainment of political independence and social, political, and economic developments of the nineteenth and twentieth centuries in Latin America. This course satisfies the cultural diversity requirement.

**HIST 2053 Modern Mexico: 3 semester hours**

Mexico from the Revolution to the present, covering major political, social, and cultural developments of the twentieth century including foreign population migration, the student movement of the 1960s, the rise and fall of the PRI, and the impacts of globalization.

**HIST 2063 African Diaspora To Abolition of the Slave Trade: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Comparative in scope, the course examines major themes in West and Central Africa and their impact on the history of Africans in the Atlantic diaspora up to 1800. Themes include: slavery, multi-racialism, economics of the South Atlantic system, political dimensions and the social transformation from heterogeneous crowds to new and homogeneous communities. Linkages between Africans and their descendants in the Atlantic communities of Latin America, the Caribbean, as well as North America will be stressed. This course fulfills the Cultural Diversity requirement.

**HIST 2064 African Diaspora in the Age of Migration: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. Comparative in scope, this course uses a comparative methodology to examine the major themes in West and Central Africa and their impact on the history of Africans in the Atlantic diaspora after 1800. This course fulfills the Cultural Diversity requirement.

**HIST 2081 Rome: The Republic And Empire: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. A survey of the development of Roman political and cultural life from the Legendary founding of the city in central Italy in 753 BC to the death of the Emperor Justinian in 565 AD.

**HIST 2082 Christianity: From Jesus to Martin Luther: 3 semester hours**

The purpose of this course is to orient students in the scholarship about the Christian Church in the Western tradition as an institution. Open discussion is encouraged, and all traditions will be respected in the interest of expanding our knowledge of the past as well as the living communities today.

**HIST 2083 Europe In Early Middle Ages: Paganism to Christianity: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. The end of the Roman Empire as a universal entity; the successor states of the Mediterranean and Northern Europe; the emergence of a Western Christendom under the Franks; the development of feudal states; the Gregorian reforms; the Crusades; the revival of education and learning in the twelfth century.

**HIST 2084 Crusades and Plagues: Europe In The High And Late Middle Ages: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. Medieval society at its political, economic, and intellectual zenith; the crisis of the later Middle Ages; the Papal schism and the development of national particular churches within Catholicism; and the rise of estate institutions.

**HIST 2085 Medieval England: From Arthur to Richard III: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. A brief summary of the Anglo-Saxon heritage and the impact of the Norman Conquest, followed by an investigation of the institutional, social, and legal evolution of the realm of England. English development will be viewed in its European context.

**HIST 2086 Reformation of Europe: Beyond Religion: 3 semester hours**

Prerequisite: Sophomore standing or consent of the instructor. Religious, intellectual, political, and socioeconomic developments of the sixteenth century.

**HIST 2088 Europe and the Renaissance: Not Just for Painters Anymore: 3 semester hours**

Prerequisites: Sophomore Standing or consent of the instructor. The Italian and Northern Renaissance as a distinct age; political, socioeconomic, intellectual, religious, and artistic movements attending the decline of medieval society, and the transition to the early modern period.

**HIST 2089 Religion, Philosophy & Science in History: Introduction to The Intellectual History Of The West: 3 semester hours**

Sophomore standing or consent of instructor. An examination of some of the most important ideas and debates that shaped the Western world. Topics include Platonic versus Aristotelian models of the universe, Medieval synthesis and the challenge of Renaissance naturalism, the Scientific Revolution, the political ideas of Thomas Hobbes, John Locke, and Jean-Jacques Rousseau, romanticism, Marxism, Darwinian evolution, Freudian psychology, existentialism, structuralism and poststructuralism.

**HIST 2090 Europe in the Eighteenth Century: From the Glorious Revolution to the Napoleonic Era: 3 semester hours**

Prerequisite: Sophomore standing or consent of instructor. This course offers intensive study of Europe in the period between the Glorious Revolution in England in 1688 and the fall of Napoleon in 1815. Particular emphasis will be placed on the theme of the rise of the modern. Specifically, the course will examine the struggle by intellectuals, politicians, and military figures to move Europe forward from the old regime system. Particular emphasis will be placed on the works of Voltaire, Rousseau, Locke, and Paine.

**HIST 2091 Europe in the Nineteenth Century: From Waterloo to World War I: 3 semester hours**

Prerequisites: Sophomore standing or Consent of Instructor. This course offers intensive study of Europe in the period between the fall of Napoleon in 1815 and the turn-of-twentieth century. Particular emphasis will be placed on the themes of industrialization, overseas colonization, and the development of nationalist, socialist, and liberal ideas.

**HIST 2095 History of Ireland: 3 semester hours**

This course will explore Irish history from medieval to modern times. Topics will include issues of land, settlement, immigration, and modernization.

**HIST 2102 Introduction To Gender Studies: 3 semester hours**

Same as GS 2102, SOC WK 2102, and SOC 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

**HIST 2105 Sex in America: 3 semester hours**

Prerequisites: Sophomore Standing or consent of the instructor. Dissected, categorized, evaluated, feared, and enjoyed: sex in America's past, including our current obsession with it, is the primary concern of this course. Why and how have sex and sexuality become so central to identities, culture, politics, and now, our history? This course explores the complex and often hidden history of sex in the United States. It uses sex to examine big political ideas of citizenship, democracy, and cultural inclusion.

**HIST 2116 History of Greece and The Balkans: 3 semester hours**

Prerequisites: Sophomore standing or consent of the instructor. This course is designed to introduce students to the history of the Balkans with particular emphasis on Greece. Although a part of the course will deal with nation building and nationalism, we will also examine the broad historical trends that have shaped the distinct cultural, social, and political developments in the region from the late 18th century until the end of the 20th century.

**HIST 2117 Greek History And Culture: 3 semester hours**

Same as ANTHRO 2117. Greek civilization has had a deep impact on contemporary society in art; social, political, and economic organization; philosophy; law; medicine; and science. This course covers major aspects of Greek history and culture from antiquity to the present. It considers the major political and military events of Greek History, as well as important aspects of Greek culture, including sports and the history of the Olympic Games, literature, philosophy, and mythology.

**HIST 2118 Modern Greek History and Culture: 3 semester hours**

Same as ANTHRO 2118. A history of Modern Greece, from the fall of Constantinople (1453) to the present, with an emphasis on social, cultural, and political developments. The course will provide a chronological framework of events and it will utilize art, literature, and folklore, along with traditional historical sources, to gain a better understanding of the richness of modern Greek history and culture.

**HIST 2219 United States Labor History: 3 semester hours**

Examines the history of work and the working class in the United States. It focuses on the transformation of the workplace, the evolution of working class consciousness and the development of the labor movement, the role of race, gender and ethnicity in uniting or dividing the working class, and the nature of labor's relations with other social groups in the political arena. Particular emphasis on the political and economic conditions and strategies of periods when working class power was growing.

**HIST 2770 Introduction To Transportation: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. Introduction to Transportation provides an overview of the transportation sector, including history, providers, users, and government regulation. The importance and significance of transportation modes of rail, water, motor, air, and pipeline: the demand and supply of transportation, and the managerial aspects of these modes of transport will be covered in the course.

**HIST 2772 History Of Aviation In American Life: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. Course focuses on the history of aviation in the United States from balloon flights preceding the Wright brothers through the terrorist attacks in September 2001 with emphasis upon how aviation and aviators have influenced American society and culture. Themes include the evolution of aviation technology, the growth of the commercial/military aviation/aerospace industries, issues of race and gender in aviation, the development of America's commercial airlines, aviation's influence upon American art, films, advertising, and literature, the significance of the space race, and the role of aerial weapons of war.

**HIST 2773 Urbanization And Transportation: 3 semester hours**

Prerequisites: Sophomore standing or consent of instructor. Course provides an overview of urbanization and transportation in the United States. Besides examining the history of urbanization and transportation, this course offers comparisons between contemporary international urban areas for the purpose of placing the US experience in context. Additionally, the course covers key issues surrounding the planning, development, and consequences of infrastructure facilitating the movement of people and freight in the urban setting, such as financing, transport technologies, political policies, economic growth, and demographic trends.

**HIST 2800 History Of American Economic Development: 3 semester hours**

Same as ECON 2800. Prerequisites: ECON 1000 or ECON 1001 or consent of instructor. Uses economic concepts to explain historical developments in the American economy, beginning with the hunter gatherers who crossed the Bering land bridge around 12,000 BC. Main topics include the Native American economies, European exploration and conquest, the colonial economies, indentured servitude, the American Revolution, the US Constitution, westward expansion, transportation, the Industrial Revolution, state banking and free banking, slavery, the Civil War, post-bellum agriculture, the rise of big business and antitrust, banking panics, the Federal Reserve Act, the First and Second World Wars, the New Deal, and the growth of government in postwar economy.

**HIST 2999 Introduction to Historical Inquiry: 4 semester hours**

Prerequisites: Sophomore standing or consent of instructor. This course is designed to develop historical thinking skills. Emphasis will be placed on reading of historical sources, exploring the rhetoric of history, identifying perspectives in historical sources, and the process of formulating historical questions. Other topics covered will include proper citation procedures and historiography. The course is writing intensive and will involve primary source research at libraries and archives.

**HIST 3000 Selected Topics In History: 3 semester hours**

Prerequisite: Junior standing or consent of instructor. Special topics in history to be determined by the field, availability of instructors and interest of students. The course may be repeated for credit with the consent of the instructor.

**HIST 3031 Modern Japan: From the Meiji Restoration to the Present: 3 semester hours**

Prerequisite: Junior Standing Or Consent Of Instructor. The Economic, Social, And Political Development Of Modern Japan.

**HIST 3032 Modern China: From the Decline of the Qing Empire to the Global Age: 3 semester hours**

Prerequisite: Junior Standing Or Consent Of Instructor. The Economic, Social, And Political Development Of Modern China.

**HIST 3033 Modern History Of The Asian Pacific Rim: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. A course on the modern history of the broad economic region of East and Southeast Asia as well as the region's interaction with the United States. The course is designed for students who need to understand the political and economic dynamics of the countries around the Pacific Basin and the historical roots of various problems.

**HIST 3034 History of Technology and Environment in China: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. Course explores how the Chinese used technology to manage the economy, environment and disasters which paralleled developments in the West. Discussions on the political function of Chinese science and technology, and on its continued influence on Chinese culture and society.

**HIST 3041 Topics In American Constitutional History: 3 semester hours**

Prerequisite: Junior standing or consent of instructor. Origins and development of the principal institutions and ideas of the American constitutional systems; the role of the constitution and the Supreme Court in the growth of the nation; important Supreme Court decisions; great American jurists and their impact upon the law; historical background to current constitutional issues.

**HIST 3043 History Of Crime And Justice: 3 semester hours**

Same as CRIMIN 3043. Prerequisites: Junior standing or consent of instructor. The analysis, development, and change in philosophies and responses to crime. Emphasis on major forms and definitions of crime, the emergence of modern policing, the birth of the prison, and the juvenile court system.

**HIST 3051 Latin America: From Conquest to Independence: 3 semester hours**

Prerequisites: Junior standing or consent of Instructor. Latin America from the pre-Columbian Civilizations to 1808, stressing social, political, and economic institutions in the Spanish colonies. This course satisfies the Cultural Diversity requirement.

**HIST 3092 Europe, 1900-1950: War And Upheaval: 3 semester hours**

Prerequisites: Junior standing or consent of the instructor. The impact of World Wars I and II and the search for equilibrium.

**HIST 3093 Europe, 1950-Present: Peace And Prosperity: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. A survey of the main social, economic, political, military, and cultural trends in Europe since the outbreak of World War II.

**HIST 3097 Spain: From Superpower to Napoleon's Puppet: 3 semester hours**

Prerequisite: Junior standing or consent of instructor A survey of Spanish history from the fifteenth century, emphasizing its period of imperial greatness and examining the effects of empire on national development.

**HIST 4001 Special Readings: 1-10 semester hours**

Prerequisite: Consent of the instructor. Independent study through readings, reports and conferences.

**HIST 4002 Collaborative Research: 3 semester hours**

Prerequisite: Consent of instructor Faculty-student collaboration on a research project designed to lead toward the publication of a jointly-authored article. The faculty member will direct the research.

**HIST 4003 Internship: 3-6 semester hours**

Prerequisites: Consent of Supervising instructor and instituon offering the internship Supervised practicum in a museum, historical agency, and other institution offering an opportunity for hands-on experience in public history. This elective course supplements but does not replace the requirements for a baccalaureate degree in history. May not be taken for graduate credit.

**HIST 4014 World History For The Secondary Classroom: 3 semester hours**

Prerequisites: TCH ED 3310 or consent of the instructor. This course is required for Social Studies certification. Adapts the themes and subject matter of World History to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting themes of World history, on expanding bibliography, and on choosing methods of inquiry for use in an interactive classroom. Cannot be counted towards the minimum 39-hour history major requirement, but can be counted towards the 45 hour maximum and for Social Studies Certification. Not available for graduate credit.

**HIST 4142 Inquiries in U.S. History: 3 semester hours**

Prerequisites: HIST 2999. This course will develop historical thinking and writing skills through investigation in topics in National History.

**HIST 4143 Inquiries in World History: 3 semester hours**

Prerequisites: HIST 2999. This course will develop historical thinking and writing skills through investigation in topics in World History.

**HIST 4999 Senior Seminar: 5 semester hours**

Prerequisites: HIST 2999, consent of department and presentation of three examples of formal written work submitted in prior upper-division courses in history. Studies in historical methodology and historiography. Directed readings, research, and writing leading to the production of an original piece of historical scholarship. An exit interview is required. Senior seminar is required of all history majors. May not be taken for graduate credit.

**HIST 5000 Advanced Selected Topics In History: 3 semester hours**

Prerequisite: Graduate standing Special topics in history. The course may be repeated for credit with consent of the instructor.

**HIST 5142 Advanced Inquiries in U.S. History: 3 semester hours**

Prerequisite: Graduate standing. This course will develop historical thinking and writing skills through investigation in topics in United States history.

**HIST 5143 Advanced Inquiries in World History: 3 semester hours**

Prerequisite: Graduate standing This course will develop historical thinking and writing skills through investigation in topics in World history.

**HIST 5592 The History of the Visual Arts in American Museums: 3 semester hours**

Same as ANTHRO 5592 and ART HS 5592. Prerequisites: Graduate Standing and consent of instructor. This course is an introduction to selected topics in the history of museology, focusing on art and anthropology museums as sites for the interpretations of art and culture, and as contested meeting grounds for various views of history and culture.

**HIST 6000 The Historian's Craft: 1-3 semester hours**

This course will introduce incoming students to graduate work, both in the field of history generally and to the M.A. program at UM-St. Louis in particular. It will familiarize them with the fields of historical study and the UMSL faculty who teach them, protocols of the profession, and methodologies of historical research, writing, and analysis. It will also help students learn about and prepare for careers outside the academy and/or Ph.D. programs in the field. Students may be required to attend colloquia off campus.

**HIST 6001 Introduction to Public History and Cultural Heritage: 3 semester hours**

Prerequisites: Graduate Standing or Consent of Instructor. This seminar will introduce students to the theory and practice of public history and cultural heritage. Readings will acquaint students with these fields of study and offer commentary on a variety of strategies for making the past relevant for contemporary audiences.

**HIST 6013 Historical and Theoretical Foundations of US History in Schools and Communities: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor The intent of this course is to foster critical inquiry into school and public presentations of historical knowledge. Particular emphasis will be placed on defining the broad and connecting themes of U.S. History and the political and cultural struggles that have shaped school curriculum and public discussion since the nineteenth century.

**HIST 6014 World History For The Secondary School Classroom: 3-6 semester hours**

Prerequisites: Graduate standing or consent of instructor The intent of this course is to adapt the themes and subject matter of World history to the secondary classroom and to train teachers in the methodology of Socratic symposium, techniques designed to maximize the use of sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting themes of World history, on expanding bibliography, and on methods for choosing primary sources for use in an interactive classroom. HIST 6014 may not be used to meet history degree requirements.

**HIST 6102 Readings In American History Since 1865: 3-5 semester hours**

Prerequisites: Graduate standing and consent of instructor. Directed readings and writing on selected topics and areas in American history since 1865.

**HIST 6115 Historical Thinking in Theory and Practice I: 3 semester hours**

Same as TCH ED 6115. Prerequisites: Graduate Standing or consent of instructor. This course explores theoretical and research literature on historical thinking. It further examines effective teaching strategies and curriculum materials that facilitate historical thinking and reading skills while also broadening content knowledge. It will familiarize students with text and web-based resources available for instruction.

**HIST 6116 Historical Thinking in Theory and Practice II: 3 semester hours**

Same as HIST 6116. Prerequisites: HIST 6115 / TCH ED 6115 or consent of instructor. Building upon HIST 6115 / TCH ED 6115, this course emphasizes the design, implementation, and assessment of teaching materials and practices that foster historical thinking and reading. In this hands-on, action research course, students will focus on their own teaching materials and practices to improve their capacity to teach and assess students' historical thinking.

**HIST 6121 Directed Readings: 1-3 semester hours**

Prerequisites: Consent of a member of the Doctoral Faculty. Directed research at the graduate level.

**HIST 6122 Collaborative Research: 3-6 semester hours**

Prerequisites: Graduate Standing and Consent of Instructor Faculty-student collaboration on a research project designed to lead toward the publication of a jointly-authored article. The faculty member will direct the research.

**HIST 6123 Thesis Seminar: 1-6 semester hours**

Prerequisites: Graduate standing and consent of instructor. Thesis research and writing on a selected topic in history.

**HIST 6124 Graduate Internship: 3 semester hours**

Prerequisites: Consent of supervising instructor and institution offering the internship. Supervised practicum in a museum, historical agency, and other institution offering an opportunity for hands-on experience in public history.

**HIST 6125 Practicum in Public History and Cultural Heritage: 3 semester hours**

Prerequisites: Graduate Standing or Consent of Instructor. In collaboration with a designated community partner, students will research and interpret the past for contemporary audiences. The course will combine traditional classroom sessions with hands-on training.



**HIST 6130 Collections Management and Registration: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. Most of the institutions that we call museums collect objects. A collecting institution requires a collections manager or a registrar to track, manage, and insure the safety of its objects, whether it collects art, artifacts, specimens, or live organisms. This course covers collections care and management from acquisition to evaluation, documentation, care, storage (or maintenance), loans, exhibitions, contracts, risk preparedness, and policy-making. It focuses on the practical knowledge and skills needed for collections management and registration. While much of the course material is drawn from historical, ethnographic, and art collections, the basic principles apply broadly to all collecting institutions.

**HIST 6131 Museum Origins and Evolution: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. This course traces the social and cultural history of museums from their origins in curiosity cabinets, princely collections, freak shows, and exhibitions, through their late 19th and early 20th century institutionalization, to present-day developments such as blockbuster exhibitions, community collaborations, masterpiece architecture, and the spread of museal and heritage institutions around the globe. Topics include colonialism, modernity, and the production of taxonomical knowledge; museums and nationalism; theories of culture, patrimony, and ownership; manufacture, marketing, and museums; the relationships between museums and academia; identity politics and culture wars; community-based initiatives; and virtual and digital museum spaces.

**HIST 6132 Digital Video for Museums and Community History: 3 semester hours**

Prerequisites: Consent of Director of Museum Studies Program. This course covers basic production and post-production in digital video, and examines how digital video has been and can be used for community history projects and museum installations. Students will learn basics of shooting, lighting, sound, scripting, and non-linear editing; interviewing and observational footage; and produce a series of documentary shorts. Readings will include the special characteristics of the cinematic medium and case studies of digital video for community-based research, advocacy, and museum audiences.

**HIST 6133 Museums and History in the Digital Age: 3 semester hours**

This course introduces and explores the key issues, analyses, critical debates, opportunities and potential drawbacks for museums and public historians using digital media to engage with communities. Students will gain facility in implementing digital strategies for museum and public history initiatives, including how to plan, manage, and assess the success of media projects.

**HIST 6134 History Curatorship: 5 semester hours**

Prerequisites: Graduate standing and consent of instructor. Principles and practices of curatorship in history museums. Historiography and research in material culture; theoretical foundations; methodologies for collecting and curating collections; legal and ethical issues; interpretation; role of the history curator in exhibit and program development; responsibilities to the community.

**HIST 6135 Foundations Of Museology I: 3 semester hours**

Same as ART HS 6035 and ANTHRO 6135. Prerequisites: Consent of Director of Museum Studies Program. Concepts for understanding museums in their social and cultural context; history of museums; museology and general social theory; information transfer vs meaning-making models; museums and communities; the changing role of museums; museums as complex organizations; process models of museology.

**HIST 6137 Museum Organization and Operations: 3 semester hours**

Same as ART HS 6037 and ANTHRO 6137. Prerequisites: Consent of Director of Museum Studies Program. This course looks at museum organization and operations in the 21st century. As museums become more focused on visitors, communities, and private donors, their structures, staffing, and practices have changed. This course introduces students to the wide range of museum professions, the evolving function of museums, the effects of new technologies, and the challenges of administration and funding in constrained economic circumstances. The course includes scrutiny of ethical issues such as disputed collections, intellectual property rights, organizational conflicts, and community collaboration and planning.

**HIST 6138 Museum Studies Master's Project: 5 semester hours**

Same as ART HS 6038 and ANTHRO 6138. Prerequisites: Consent of Director of Museum Studies Program. Research and writing/ exhibit development on a selected topic.

**HIST 6140 Readings in Metropolitan History: 3-5 semester hours**

Prerequisite: Graduate Standing Directed readings and writing on selected topics and areas in Metropolitan History.

**HIST 6141 Readings in Regional History: 3-5 semester hours**

Prerequisite: Graduate Standing Directed readings and writing on selected topics and areas in Regional History.

**HIST 6142 Readings in U.S. History: 3-5 semester hours**

Prerequisite: Graduate Standing. Directed readings and writing in selected topics and areas in United States History.

**HIST 6143 Readings in World History: 3-5 semester hours**

Prerequisite: Graduate Standing. Directed readings and writing on selected topics and areas in World History.

**HIST 6150 Directed Readings in Metropolitan History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

**HIST 6151 Directed Readings in Regional History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

**HIST 6152 Directed Readings in U.S. History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

**HIST 6153 Directed Readings in World History: 1-3 semester hours**

Prerequisites: Consent of a member of the graduate faculty. Directed readings and research at the graduate level.

## Health and Physical Education

### Courses

**HLTH PE 3275 Psychological Aspects Of Physical Education: 3 semester hours**

Prerequisite: PSYCH 1003. A study of the psychological processes underlying the learning and performance of motor skills and participation in physical activity. Covers how humans learn skilled actions, how principles of motor performance and learning can be applied to teaching, and how teachers can create positive motivational climates.

**HLTH PE 3277 Foundations of Health & Physical Education Programs: 2 semester hours**

Prerequisites: Junior standing. A study of the historical, philosophical, and cultural influences and issues related to health education and physical education programs.

**HLTH PE 3280 Human Anatomy And Physiology: 5 semester hours**

Prerequisite: BIOL 1012 and BIOL 1013 or consent of instructor, Junior standing. Study of the basic aspects of human anatomy and physiology and their relationship to concepts in sport and physical activity. Two hours laboratory per week.

**HLTH PE 3284 Physiology Of Human Exercise: 3 semester hours**

Prerequisite: HLTH PE 3280. Study of the physiological effects of human exercise, training, and sport activities upon the human body; emphasis also given to factors of work, fatigue, nutrition, gender, and environment.

**HLTH PE 3285 Safety and Emergency Care for Health & Physical Education: 3 semester hours**

Prerequisites: HLTH PE 3280 or equivalent. A study of safety issues relating to health and physical education, including prevention and treatment of physical activity-related injuries. Emphasis will be given to emergency responses, including CPR certification.

**HLTH PE 3380 Introduction to Nutrition for Health and Performance: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. Study of human nutrition and its relationship to healthy lifestyles and exercise performance. Includes study of nutrients, food sources, healthy weight and body composition, energy intake and expenditure, fluid and electrolyte balance, and ergogenic aids.

**HLTH PE 3432 Teaching Health and Physical Education in the Elementary School: 4 semester hours**

Prerequisites: Admission to the Teacher Education Program. A study of health and physical education programs in the elementary school. Emphasis is given to the teacher's roles and responsibilities as they relate to the content and services found in the coordinated school health program.

**HLTH PE 3433 Health Education Concepts and Skills: 3 semester hours**

Prerequisites: Junior Standing. A study of health concepts and lifestyle skills found in K-12 health education strands, including mental health, sexuality education, drug education, nutrition, personal health and disease prevention.

**HLTH PE 3434 Teaching of Health and Wellness: 4 semester hours**

Prerequisites: HLTH PE 3280 or the equivalent, or consent of the instructor. Study of concepts and issues related to health and active lifestyle behavior development, with emphasis given to the design and preparation of appropriate instructional experiences and techniques.

**HLTH PE 4989 Physical Education Professional Internship: 2 semester hours**

Prerequisites: Level II designated course requirements. This course is an intensive professional development experience (equivalent of 6 hours per week for 14 weeks) working in a school setting with students. Activities on site include assisting the health and physical education teacher in all areas of instruction, assessment, and classroom management. This course is to be taken prior to student teaching, ideally during the semester immediately preceding student teaching. Assignments from allied courses (PHY ED 3422, PHY ED 3423, PHY ED 3424, HLTH PE 3434) are carried out in the Internship, and Internship experiences inform the activities and discussions in these courses. Not available for graduate credit.

**HLTH PE 4990 Practicum II: Health and Physical Education, Grades PK-5: 6 semester hours**

Prerequisites: HLTH PE 4989. Clinical teaching experience in physical education settings in the schools under university and school supervision. Required for all majors in physical education receiving certification in Health and Physical education. Not available for graduate credit.

**HLTH PE 4991 Practicum II: Health and Physical Education Grades 5-9: 6 semester hours**

Prerequisites: HLTH PE 4989. Clinical teaching experiences in Health and Physical Education settings in schools under university and school supervision. Required of all majors in Physical Education receiving certification in Health Education and Physical Education, K-9. Not available for graduate credit.

**HLTH PE 4992 Practicum II: Health and Physical Education Grades 9-12: 6 semester hours**

Prerequisites: HLTH PE 4989. Clinical teaching experience in Health and Physical Education settings in schools under university and school supervision. Required of all majors in Physical Education receiving certification in Health Education and Physical Education, K-12. Not available for graduate credit.

**HLTH PE 5989 Physical Education Professional Internship: 2 semester hours**

Prerequisites: Level II designated course requirements. An intensive professional development experience (equivalent of 6 hours per week for 14 weeks) working in a school setting with students. Activities on site include assisting the health and physical education teacher in all areas of instruction, assessment, and classroom management. This course is to be taken prior to student teaching, ideally during the semester immediately preceding student teaching. Assignments from allied courses (PHY ED 3422, PHY ED 3423, PHY ED 3424, HLTH PE 3434) are carried out in the Internship, and Internship experiences inform the activities and discussions in these courses. Activities to acquire research skills will be included.

**HLTH PE 5990 Practicum II: Health and Physical Education, Grades PK-6: 0 semester hours**

Prerequisites: A grade of B- or higher in HLTH PE 4989. Clinical teaching experience in physical education settings in the schools under university and school supervision. Required for all majors in physical education receiving certification in Health and Physical education. Teacher candidates collect data for a research project.

**HLTH PE 5991 Practicum II: Health and Physical Education Grades 5-9: 4 semester hours**

Prerequisites: A grade of B- or higher in HLTH PE 4989. Clinical teaching experiences in Health and Physical Education settings in schools under university and school supervision. Required of all majors in Physical Education receiving certification in Health Education and Physical Education, K-9. Teacher candidates collect data for a research project.

**HLTH PE 5992 Practicum II: Health and Physical Education Grades 9-12: 4 semester hours**

Prerequisites: A grade of B- or higher in HLTH PE 4989. Clinical teaching experience in Health and Physical Education settings in schools under university and school supervision. Required of all majors in Physical Education receiving certification in Health Education and Physical Education, K-12. Teacher candidates collect data for a research project.

## Courses

**HLTH PE 3275 Psychological Aspects Of Physical Education: 3 semester hours**

Prerequisite: PSYCH 1003. A study of the psychological processes underlying the learning and performance of motor skills and participation in physical activity. Covers how humans learn skilled actions, how principles of motor performance and learning can be applied to teaching, and how teachers can create positive motivational climates.

**HLTH PE 3277 Foundations of Health & Physical Education****Programs: 2 semester hours**

Prerequisites: Junior standing. A study of the historical, philosophical, and cultural influences and issues related to health education and physical education programs.

**HLTH PE 3280 Human Anatomy And Physiology: 5 semester hours**

Prerequisite: BIOL 1012 and BIOL 1013 or consent of instructor, Junior standing. Study of the basic aspects of human anatomy and physiology and their relationship to concepts in sport and physical activity. Two hours laboratory per week.

**HLTH PE 3284 Physiology Of Human Exercise: 3 semester hours**

Prerequisite: HLTH PE 3280. Study of the physiological effects of human exercise, training, and sport activities upon the human body; emphasis also given to factors of work, fatigue, nutrition, gender, and environment.

**HLTH PE 3285 Safety and Emergency Care for Health & Physical Education: 3 semester hours**

Prerequisites: HLTH PE 3280 or equivalent. A study of safety issues relating to health and physical education, including prevention and treatment of physical activity-related injuries. Emphasis will be given to emergency responses, including CPR certification.

**HLTH PE 3380 Introduction to Nutrition for Health and Performance: 3 semester hours**

Prerequisites: Junior standing or consent of instructor. Study of human nutrition and its relationship to healthy lifestyles and exercise performance. Includes study of nutrients, food sources, healthy weight and body composition, energy intake and expenditure, fluid and electrolyte balance, and ergogenic aids.

**HLTH PE 3432 Teaching Health and Physical Education in the Elementary School: 4 semester hours**

Prerequisites: Admission to the Teacher Education Program. A study of health and physical education programs in the elementary school. Emphasis is given to the teacher's roles and responsibilities as they relate to the content and services found in the coordinated school health program.

**HLTH PE 3433 Health Education Concepts and Skills: 3 semester hours**

Prerequisites: Junior Standing. A study of health concepts and lifestyle skills found in K-12 health education strands, including mental health, sexuality education, drug education, nutrition, personal health and disease prevention.

**HLTH PE 3434 Teaching of Health and Wellness: 4 semester hours**

Prerequisites: HLTH PE 3280 or the equivalent, or consent of the instructor. Study of concepts and issues related to health and active lifestyle behavior development, with emphasis given to the design and preparation of appropriate instructional experiences and techniques.

**HLTH PE 4989 Physical Education Professional Internship: 2 semester hours**

Prerequisites: Level II designated course requirements. This course is an intensive professional development experience (equivalent of 6 hours per week for 14 weeks) working in a school setting with students. Activities on site include assisting the health and physical education teacher in all areas of instruction, assessment, and classroom management. This course is to be taken prior to student teaching, ideally during the semester immediately preceding student teaching. Assignments from allied courses (PHY ED 3422, PHY ED 3423, PHY ED 3424, HLTH PE 3434) are carried out in the Internship, and Internship experiences inform the activities and discussions in these courses. Not available for graduate credit.

**HLTH PE 4990 Practicum II: Health and Physical Education, Grades PK-5: 6 semester hours**

Prerequisites: HLTH PE 4989. Clinical teaching experience in physical education settings in the schools under university and school supervision. Required for all majors in physical education receiving certification in Health and Physical education. Not available for graduate credit.

**HLTH PE 4991 Practicum II: Health and Physical Education Grades 5-9: 6 semester hours**

Prerequisites: HLTH PE 4989. Clinical teaching experiences in Health and Physical Education settings in schools under university and school supervision. Required of all majors in Physical Education receiving certification in Health Education and Physical Education, K-9. Not available for graduate credit.

**HLTH PE 4992 Practicum II: Health and Physical Education Grades 9-12: 6 semester hours**

Prerequisites: HLTH PE 4989. Clinical teaching experience in Health and Physical Education settings in schools under university and school supervision. Required of all majors in Physical Education receiving certification in Health Education and Physical Education, K-12. Not available for graduate credit.

**HLTH PE 5989 Physical Education Professional Internship: 2 semester hours**

Prerequisites: Level II designated course requirements. An intensive professional development experience (equivalent of 6 hours per week for 14 weeks) working in a school setting with students. Activities on site include assisting the health and physical education teacher in all areas of instruction, assessment, and classroom management. This course is to be taken prior to student teaching, ideally during the semester immediately preceding student teaching. Assignments from allied courses (PHY ED 3422, PHY ED 3423, PHY ED 3424, HLTH PE 3434) are carried out in the Internship, and Internship experiences inform the activities and discussions in these courses. Activities to acquire research skills will be included.

**HLTH PE 5990 Practicum II: Health and Physical Education, Grades PK-6: 0 semester hours**

Prerequisites: A grade of B- or higher in HLTH PE 4989. Clinical teaching experience in physical education settings in the schools under university and school supervision. Required for all majors in physical education receiving certification in Health and Physical education. Teacher candidates collect data for a research project.

**HLTH PE 5991 Practicum II: Health and Physical Education Grades 5-9: 4 semester hours**

Prerequisites: A grade of B- or higher in HLTH PE 4989. Clinical teaching experiences in Health and Physical Education settings in schools under university and school supervision. Required of all majors in Physical Education receiving certification in Health Education and Physical Education, K-9. Teacher candidates collect data for a research project.

**HLTH PE 5992 Practicum II: Health and Physical Education Grades 9-12: 4 semester hours**

Prerequisites: A grade of B- or higher in HLTH PE 4989. Clinical teaching experience in Health and Physical Education settings in schools under university and school supervision. Required of all majors in Physical Education receiving certification in Health Education and Physical Education, K-12. Teacher candidates collect data for a research project.

## Home Economics



## Courses

### **HOME EC 1110 Nutrition In Health: 3 semester hours**

A study of dietary nutrients essential for health, proper selection of foods to provide them and current issues affecting them.

## Courses

### **HOME EC 1110 Nutrition In Health: 3 semester hours**

A study of dietary nutrients essential for health, proper selection of foods to provide them and current issues affecting them.

## Honors

## Courses

### **HONORS 1100 Freshman Composition: 3 semester hours**

Prerequisite: Consent Of The Dean Of The Honors College. Theory And Practice Of Writing Expository Prose. Emphasis On Individual Tutorial. Assignment Will Be Linked With Topics Discussed In Honors 101.

### **HONORS 1110 Western Traditions: Humanities: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College All Western Traditions seminars will be based on the reading and discussion of works of exceptional importance in the development of western culture and civilization. The works to be discussed in each seminar will follow a central theme (defined by its particular relevance to the traditional academic disciplinary areas of the humanities, arts, social sciences, mathematics, or sciences) but will relate that theme to wider developments in Western Traditions and to the American concept of a liberal education.

### **HONORS 1130 Western Traditions: Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College All Western Traditions seminars will be based on the reading and discussion of works of exceptional importance in the development of western culture and civilization. The works to be discussed in each seminar will follow a central theme (defined by its particular relevance to the traditional academic disciplinary areas of the humanities, arts, social sciences, mathematics, or sciences) but will relate that theme to wider developments in Western Traditions and to the American concept of a liberal education.

### **HONORS 1200 Freshman Symposium: Cultural Traditions I: 3 semester hours**

Course surveys Western and Non-Western cultural Traditions from their beginnings until 1800. It will introduce the intellectual traditions of a wide variety of cultures through major works of literature, religion and philosophy.

### **HONORS 1201 Freshman Symposium: Cultural Traditions II: 3 semester hours**

Prerequisite: Consent of the Dean of the H.C. Course surveys Western and Non-Western Cultural Traditions from the 1800's to current times. It will introduce intellectual traditions of a wide variety of cultures through major works of literature, religion and philosophy.

### **HONORS 1230 American Traditions: Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Honors seminars in the American Traditions series involve reading and discussion of texts of major importance in the development of the culture, politics, ideologies, and values which are or have been characteristic of the United States of America. Every American Traditions seminar will cover a broad range of time, and each may include contemporary issues. HONORS 1230 (Social Sciences) satisfies the American history and government requirement, and any course in the American Traditions sequence may be taken to satisfy one of the 'core' requirements for the American Studies Minor.

### **HONORS 1310 Non-Western Traditions Series Humanities: 3 semester hours**

Prerequisite: Consent of the Dean of the H.C. Seminars focus on different topics in the humanities but address themes and problems in non-western cultures that are related to the freshmen core classes (HONORS 1200 and HONORS 1201). These topics will be examined in depth through reading discussion, and students will produce formal papers and participate in individual or small group presentations.

### **HONORS 1330 Non-Western Traditions Series-Social Sciences: 3 semester hours**

Prerequisite: Consent of the Dean of the Honors College Seminars focus on different topics in the social sciences but address themes and problems in non-western cultures that are related to the freshmen core classes (HONORS 1200 and HONORS 1201). These topics will be examined in depth through reading discussion, and students will produce formal papers and participate in individual or small group presentations.

### **HONORS 1410 Freshman Seminar In Humanities: 3 semester hours**

Seminars focus on different topics in the humanities but address themes and problems in the western cultural traditions that are related to the freshmen core classes (HONORS 1200 and HONORS 1201). These topics will be examined in depth through reading and discussion, and students will produce formal papers and participate in individual or small group presentations.

### **HONORS 2010 Inquiries In The Humanities: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one of more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

### **HONORS 2020 Inquiries In The Fine And Performing Arts: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College. Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.



**HONORS 2030 Inquiries In The Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2050 Inquiries In The Natural Sciences: 1-3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2051 Inquiries in the Sciences: Laboratory or Field Work: 1 semester hour**

Prerequisites: Permission of Honors Dean. This course develops students' understanding of how the experimental procedures of the life and physical sciences are used to collect data and to develop and test scientific hypotheses. HONORS 2051 is taken as a required companion course to specific sections of HONORS 2050, (Inquiries in the Sciences), when laboratory or field work experience is essential to students' understanding of and competence in the scientific subject matter of the companion section of HONORS 2050.

**HONORS 2060 Inquiries In Business: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2070 Inquiries In Education: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2071 Inquiries in Education: 4 semester hours**

Prerequisite: Consent of the dean of the Honors College. Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate, laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. HONORS 2071 meets College of Education requirements for TCH ED 2209.

**HONORS 2080 Inquiries In Nursing: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2310 Cultural Diversity In The Humanities: 3 semester hours**

This seminar focuses upon cultural diversity themes, texts, and perspectives within the humanities.

**HONORS 2330 Cultural Diversity In The Social Sciences: 3 semester hours**

This seminar focuses upon cultural diversity themes, texts, and perspectives within the social sciences.

**HONORS 3010 Advanced Honors Seminar In The Humanities: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College. Open only to Honors College students and not acceptable for graduate credit. Usually restricted to Juniors and Seniors, these advanced seminars focus on in-depth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multidisciplinary and will underscore the value of making connections between diverse areas of study. These courses will not usually require specific prerequisites, but may (with the consent of the appropriate department or division) be taken as major or minor courses. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 3020 Advanced Honors Seminar In The Fine And Performing Arts: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Open only to Honors College students and not acceptable for graduate credit. Usually restricted to Juniors and Seniors, these advanced seminars focus on in-depth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multidisciplinary and will underscore the value of making connections between diverse areas of study. These courses will not usually require specific prerequisites, but may (with the consent of the appropriate department or division) be taken as major or minor courses. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 3030 Advanced Honors Seminar In The Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Open only to Honors College students and not acceptable for graduate credit. Usually restricted to Juniors and Seniors, these advanced seminars focus on in-depth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multidisciplinary and will underscore the value of making connections between diverse areas of study. These courses will not usually require specific prerequisites, but may (with the consent of the appropriate department or division) be taken as major or minor courses. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 3075 Reflective Research in Education: 2-3 semester hours**

Prerequisites: Consent of Honors College Dean. Students will explore issues and trends in educational research from the perspectives offered by their own classroom experiences (as students and/or as teaching interns). Through individual research projects, discussions, and periodic status reviews, students will gain in understanding how major educational research issues arise from and interact with curriculum design and classroom pedagogy. Students who have already taken HONORS 2071 (Foundations of Teaching in American Schools) will take the course for two (2) credits.

**HONORS 3100 Honors Advanced Composition: Writing The City: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Enhances critical thinking, research, discussion and writing skills by focusing on the city of St. Louis and on the specific fields of study of those enrolled in the course. Issues such as depth and development of content, voice, style, tone, correct expression, and research techniques are among the topics emphasized. Students maintain a Commonplace Book of journals, drafts, and creative writings; they also submit a minimum of four formal papers. This course is required for transfer students (two-year Honors Program) and an elective for students on the four-year program. For students on either program, HONORS 3100 meets the Advanced Composition requirement of the University.

**HONORS 3160 Honors Writing In The Sciences: 3 semester hours**

Prerequisites: Junior-level standing This honors course, designed to meet the needs for students in the science disciplines, will satisfy the campus junior-level writing requirement. The course will stress writing observation reports, academic journals, laboratory reports and a major project suited to the specific area of study of each student enrolled in the class. Instruction will include correct documentation of science sources, synthesis techniques of research information, technology-based research skills and effective laboratory reporting methods. Four formal papers, including one large project, and several informal papers will be required for this challenging course.

**HONORS 4100 Independent Portfolio Writing: 1-2 semester hours**

Prerequisites: Senior status. Students in this course will meet with their instructor on a regular basis to discuss and revise their writing portfolio and write their master resume, career or academic resume, personal statements for graduate school, or other projects for careers or their futures. The course is required to be at least one hour and may be taken for two hours to allow for more personal time and assistance from the instructor.

**HONORS 4900 Independent Study In Honors: 1-6 semester hours**

Prerequisites: Consent of the Dean of the Honors College Open only to Honors College students and not acceptable for graduate credit. Most Honors students will fulfill their Honors independent study requirements in another department or division of the university. Where this is not possible, and where academic credit seems an appropriate reward for the independent study in question, the project may be undertaken as HONORS 4900, normally as a 3-credit course. This will involve substantial reading, research, and/or field work, and will be supervised by a permanent member of the Honors College academic staff. Completed proposal forms for this course must be submitted to the Honors College not later than the deadline for university registration.

**HONORS 4910 Independent Study: Internships: 1-6 semester hours****HONORS 4915 Honors Independent Off-Campus Internship: 1-6 semester hours**

Prerequisites: Approval from Honors Dean This course is designed for 1 to 6 hours for an outside internship, approved by the Honors College. The student will not be on campus for the hours of this internship and most work for the internship will be submitted online to the Honors Internship Faculty Member.

## Courses

**HONORS 1100 Freshman Composition: 3 semester hours**

Prerequisite: Consent Of The Dean Of The Honors College. Theory And Practice Of Writing Expository Prose. Emphasis On Individual Tutorial. Assignment Will Be Linked With Topics Discussed In Honors 101.

**HONORS 1110 Western Traditions: Humanities: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College All Western Traditions seminars will be based on the reading and discussion of works of exceptional importance in the development of western culture and civilization. The works to be discussed in each seminar will follow a central theme (defined by its particular relevance to the traditional academic disciplinary areas of the humanities, arts, social sciences, mathematics, or sciences) but will relate that theme to wider developments in Western Traditions and to the American concept of a liberal education.

**HONORS 1130 Western Traditions: Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College All Western Traditions seminars will be based on the reading and discussion of works of exceptional importance in the development of western culture and civilization. The works to be discussed in each seminar will follow a central theme (defined by its particular relevance to the traditional academic disciplinary areas of the humanities, arts, social sciences, mathematics, or sciences)but will relate that theme to wider developments in Western Traditions and to the American concept of a liberal education.

**HONORS 1200 Freshman Symposium: Cultural Traditions I: 3 semester hours**

Course surveys Western and Non-Western cultural Traditions from their beginnings until 1800. It will introduce the intellectual traditions of a wide variety of cultures through major works of literature, religion and philosophy.

**HONORS 1201 Freshman Symposium: Cultural Traditions II: 3 semester hours**

Prerequisite: Consent of the Dean of the H.C. Course surveys Western and Non-Western Cultural Traditions from the 1800's to current times. It will introduce intellectual traditions of a wide variety of cultures through major works of literature, religion and philosophy.

**HONORS 1230 American Traditions: Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Honors seminars in the American Traditions series involve reading and discussion of texts of major importance in the development of the culture, politics, ideologies, and values which are or have been characteristic of the United States of America. Every American Traditions seminar will cover a broad range of time, and each may include contemporary issues. HONORS 1230 (Social Sciences) satisfies the American history and government requirement, and any course in the American Traditions sequence may be taken to satisfy one of the 'core' requirements for the American Studies Minor.

**HONORS 1310 Non-Western Traditions Series Humanities: 3 semester hours**

Prerequisite: Consent of the Dean of the H.C. Seminars focus on different topics in the humanities but address themes and problems in non-western cultures that are related to the freshmen core classes (HONORS 1200 and HONORS 1201). These topics will be examined in depth through reading discussion, and students will produce formal papers and participate in individual or small group presentations.

**HONORS 1330 Non-Western Traditions Series-Social Sciences: 3 semester hours**

Prerequisite: Consent of the Dean of the Honors College Seminars focus on different topics in the social sciences but address themes and problems in non-western cultures that are related to the freshmen core classes (HONORS 1200 and HONORS 1201). These topics will be examined in depth through reading discussion, and students will produce formal papers and participate in individual or small group presentations.

**HONORS 1410 Freshman Seminar In Humanities: 3 semester hours**

Seminars focus on different topics in the humanities but address themes and problems in the western cultural traditions that are related to the freshmen core classes (HONORS 1200 and HONORS 1201). These topics will be examined in depth through reading and discussion, and students will produce formal papers and participate in individual or small group presentations.

**HONORS 2010 Inquiries In The Humanities: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one of more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2020 Inquiries In The Fine And Performing Arts: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College. Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2030 Inquiries In The Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2050 Inquiries In The Natural Sciences: 1-3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2051 Inquiries in the Sciences: Laboratory or Field Work: 1 semester hour**

Prerequisites: Permission of Honors Dean. This course develops students' understanding of how the experimental procedures of the life and physical sciences are used to collect data and to develop and test scientific hypotheses. HONORS 2051 is taken as a required companion course to specific sections of HONORS 2050, (Inquiries in the Sciences), when laboratory or field work experience is essential to students' understanding of and competence in the scientific subject matter of the companion section of HONORS 2050.

**HONORS 2060 Inquiries In Business: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2070 Inquiries In Education: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2071 Inquiries in Education: 4 semester hours**

Prerequisite: Consent of the dean of the Honors College. Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate, laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. HONORS 2071 meets College of Education requirements for TCH ED 2209.

**HONORS 2080 Inquiries In Nursing: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General Education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 2310 Cultural Diversity In The Humanities: 3 semester hours**

This seminar focuses upon cultural diversity themes, texts, and perspectives within the humanities.

**HONORS 2330 Cultural Diversity In The Social Sciences: 3 semester hours**

This seminar focuses upon cultural diversity themes, texts, and perspectives within the social sciences.

**HONORS 3010 Advanced Honors Seminar In The Humanities: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College. Open only to Honors College students and not acceptable for graduate credit. Usually restricted to Juniors and Seniors, these advanced seminars focus on in-depth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multidisciplinary and will underscore the value of making connections between diverse areas of study. These courses will not usually require specific prerequisites, but may (with the consent of the appropriate department or division) be taken as major or minor courses. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 3020 Advanced Honors Seminar In The Fine And Performing Arts: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Open only to Honors College students and not acceptable for graduate credit. Usually restricted to Juniors and Seniors, these advanced seminars focus on in-depth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multidisciplinary and will underscore the value of making connections between diverse areas of study. These courses will not usually require specific prerequisites, but may (with the consent of the appropriate department or division) be taken as major or minor courses. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 3030 Advanced Honors Seminar In The Social And Behavioral Sciences: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Open only to Honors College students and not acceptable for graduate credit. Usually restricted to Juniors and Seniors, these advanced seminars focus on in-depth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multidisciplinary and will underscore the value of making connections between diverse areas of study. These courses will not usually require specific prerequisites, but may (with the consent of the appropriate department or division) be taken as major or minor courses. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 3075 Reflective Research in Education: 2-3 semester hours**

Prerequisites: Consent of Honors College Dean. Students will explore issues and trends in educational research from the perspectives offered by their own classroom experiences (as students and/or as teaching interns). Through individual research projects, discussions, and periodic status reviews, students will gain in understanding how major educational research issues arise from and interact with curriculum design and classroom pedagogy. Students who have already taken HONORS 2071 (Foundations of Teaching in American Schools) will take the course for two (2) credits.

**HONORS 3100 Honors Advanced Composition: Writing The City: 3 semester hours**

Prerequisites: Consent of the Dean of the Honors College Enhances critical thinking, research, discussion and writing skills by focusing on the city of St. Louis and on the specific fields of study of those enrolled in the course. Issues such as depth and development of content, voice, style, tone, correct expression, and research techniques are among the topics emphasized. Students maintain a Commonplace Book of journals, drafts, and creative writings; they also submit a minimum of four formal papers. This course is required for transfer students (two-year Honors Program) and an elective for students on the four-year program. For students on either program, HONORS 3100 meets the Advanced Composition requirement of the University.

**HONORS 3160 Honors Writing In The Sciences: 3 semester hours**

Prerequisites: Junior-level standing This honors course, designed to meet the needs for students in the science disciplines, will satisfy the campus junior-level writing requirement. The course will stress writing observation reports, academic journals, laboratory reports and a major project suited to the specific area of study of each student enrolled in the class. Instruction will include correct documentation of science sources, synthesis techniques of research information, technology-based research skills and effective laboratory reporting methods. Four formal papers, including one large project, and several informal papers will be required for this challenging course.

**HONORS 4100 Independent Portfolio Writing: 1-2 semester hours**

Prerequisites: Senior status. Students in this course will meet with their instructor on a regular basis to discuss and revise their writing portfolio and write their master resume, career or academic resume, personal statements for graduate school, or other projects for careers or their futures. The course is required to be at least one hour and may be taken for two hours to allow for more personal time and assistance from the instructor.



**HONORS 4900 Independent Study In Honors: 1-6 semester hours**

Prerequisites: Consent of the Dean of the Honors College Open only to Honors College students and not acceptable for graduate credit. Most Honors students will fulfill their Honors independent study requirements in another department or division of the university. Where this is not possible, and where academic credit seems an appropriate reward for the independent study in question, the project may be undertaken as HONORS 4900, normally as a 3-credit course. This will involve substantial reading, research, and/or field work, and will be supervised by a permanent member of the Honors College academic staff. Completed proposal forms for this course must be submitted to the Honors College not later than the deadline for university registration.

**HONORS 4910 Independent Study: Internships: 1-6 semester hours****HONORS 4915 Honors Independent Off-Campus Internship: 1-6 semester hours**

Prerequisites: Approval from Honors Dean This course is designed for 1 to 6 hours for an outside internship, approved by the Honors College. The student will not be on campus for the hours of this internship and most work for the internship will be submitted online to the Honors Internship Faculty Member.

## Courses of Instruction

### Information Systems

**Courses****INFSYS 1012 Learning to Program Using Virtual Worlds: 3 semester hours**

Introduces modern programming principles without requiring the knowledge of a traditional programming language. Instead, this course utilizes a novel graphical approach that enables the student to create, populate, and manipulate virtual 3-dimensional worlds which resemble video games. The development of these worlds allows students to gain direct experience and skills in using computers to solve problems. Students will create worlds of varying complexity.

**INFSYS 1800 Computers And Information Systems: 3 semester hours**

This course covers the basic concepts of networked computers including the basics of file management on local and remote computers, electronic mail, Internet browsers, and web page development. Students are also exposed to applications used in business for solving problems, communicating, and making informed decisions, including word processors, presentation software, and electronic spreadsheets. Students will also develop business applications using a popular programming language or database management tool. Credit cannot be granted for both CMP SCI 1010 and INFSYS 1800.

**INFSYS 2800 Information Systems Concepts And Applications: 3 semester hours**

Prerequisites: INFSYS 1800 or satisfactory performance on proficiency exam. Course covers concepts of information systems as they relate to business functions, including web page design and e-commerce, telecommunications, systems analysis and design, ethics of information system design and use, information security, foundations of database systems and integrated business information systems. Students will also gain valuable strategies for career development, contact management, and networking.

**INFSYS 3806 Managerial Applications Of Object-Oriented Programming I: 3 semester hours**

Prerequisites: INFSYS 1800 or CMP SCI 1250, and a 2.0 overall GPA. The course provides a study of the UNIX operating system and the C++ programming language as they pertain to managerial applications. In addition, the course will introduce the use of object-oriented programming methodologies.

**INFSYS 3807 Legacy Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. Structured COBOL programming techniques for business applications are presented. Included are report generation, control breaks, output editing, debugging, tables, sort concepts, job control language, utilities, partitioned data sets, and updating of files.

**INFSYS 3810 Information Systems Analysis: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806 or permission of instructor. Aspects and methods for managing the computer and information resources of organizations. Topics include: project management, aligning IS plans with corporate plans, MIS organizational structures, demonstrating the value of systems, facility management, purchase decisions, software acquisition, software metrics, security issues, and economic evaluation, as they relate to information resources. Special cases of systems, such as Enterprise Resource Planning (EPR) systems, Supply Chain Systems, and BPO will be discussed.

**INFSYS 3815 Object Oriented Applications In Business: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. Object-oriented programming techniques for business applications are presented. The topics are implemented in a C++ environment.

**INFSYS 3816 Managerial Application Of Object-Oriented Programming II: 3 semester hours**

Prerequisites: INFSYS 3806 and a minimum overall GPA of 2.0. This course expands object-oriented skills taught in INFSYS 3806. The emphasis in this course is on object-oriented development tools and development in a client-server environment. The data management tools will include the use of SQL to access serverbased databases.

**INFSYS 3841 Enterprise Information Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. Aspects and methods for managing the computer and information resources of organizations. Topics include: aligning IS plans with corporate plans, MIS organizational structures, demonstrating the value of MIS to senior management, facility management, purchase decisions, software acquisition, software metrics, project management, security issues, and economic evaluation, as they relate to information resources.

**INFSYS 3842 Management Of Telecommunications: 3 semester hours**

Prerequisites: INFSYS 1800 and a 2.0 overall GPA. The technical and managerial aspects of telecommunications as they apply to the business environment are discussed. Issues include: communications components and services, local area network architecture, managerial implementations, organizational issues, and cost/benefits analyses.

**INFSYS 3843 Decision Support Systems for Business Intelligence: 3 semester hours**

Prerequisites: LOG OM 3300 and a minimum campus GPA of 2.0 Applications of intelligent decision support systems to support business intelligence are explored. DSS component design in response to decision making and business intelligence needs are discussed.

**INFSYS 3844 Developing Business Applications In NET: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. This course will enable students to design, implement, and debug object-oriented and data driven business applications in Visual Basic.NET. Students will learn application design choices, object-oriented design principles, event-driven programming, user interface programming using Windows Forms and user interface controls, data binding and database access using ADO.NET, exception handling, debugging and effective ways of working with Visual Studio.NET.

**INFSYS 3845 Database Management Systems: 3 semester hours**

Prerequisites: INFSYS 2800 and a minimum campus GPA of 2.0. This course provides an introduction to the design and use of databases in meeting business information needs. Topics include database planning, conceptual design, and data administration. The concepts are studied with projects involving the use of a current database management system.

**INFSYS 3846 E-Commerce: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course provides an understanding of strategies, managerial issues, and technologies pertaining to electronic commerce in organizations. Topics include: history, business models, the virtual value chain, electronic markets, impact on organizational strategy and industry structure, analysis of successful strategies, and other emerging issues (legal, ethical, regulatory) related to managing electronic commerce, and the technical infrastructure enabling electronic commerce.

**INFSYS 3847 Web Design: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course focuses on web page planning, design, layout and construction. Topics covered include: setting up and maintaining a web site; understanding site structure, presentation, navigation and content management. HTML/XML, CSS, Dreamweaver, Fireworks, Flash, Photoshoph, data access, scripting languages, and various other technologies and tools will be discussed.

**INFSYS 3848 Security And Information Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course addresses the challenge of assuring security in information systems - networked, embedded, and stand alone. Topics include: security policies, models, tools, and techniques for enforcement. The course also examines flawed security policies, and the consequences of penetration and disruption of information systems.

**INFSYS 3890 Internship In Management Information Systems: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of management information systems electives at the 3000 level or above and have consent of supervising instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of management information systems where they apply the knowledge and skills learned in the classroom. Professional development obtaining specialized work experience are primary goals. A management information systems faculty member will monitor the student's program with the student providing a formal written report at the end of the project. INFSYS 3890 may not be counted toward the minimum credit hours of management information systems electives required for a Management Information Systems degree.

**INFSYS 3895 Special Administrative Problems - Management Information Systems: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**INFSYS 3898 Seminar in Information Systems Management: 1-3 semester hours**

Prerequisites: To be determined each time course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of information systems. May be repeated for credit with different topics.

**INFSYS 3899 Independent Study In Information Systems: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in information systems under the supervision of a full-time information systems faculty member.

**INFSYS 4850 Information Systems Design: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; INFSYS 3810, INFSYS 3816 and INFSYS 3845. System design, implementation, and methods of systems installation and operation are presented. A system development project is required.

**INFSYS 5800 Management Information Systems: 3 semester hours**

Same as P P ADM 6800. This course provides an overview of the established and contemporary issues related to information systems within organizations. Topics include the practices and tools associated with topics such as the management of IS-based investment projects, the design and implementation of IS, the alignment of IS strategy with organizational strategy, information security and privacy, and gaining a competitive advantage through IS.

**INFSYS 5899 Individual Research in Information Systems: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Information Systems under the guidance of a specific professor.

**INFSYS 6805 Applications Of Programming For Business Solutions: 3 semester hours**

Prerequisite: ECON 4105. This course provides a study of business-oriented programming. A programming language will be introduced and discussed in detail. Emphasis will be on program definition and the use of such programs in business-oriented applications.

**INFSYS 6806 Managerial Applications Of Object-Oriented Technologies: 3 semester hours**

Prerequisite: INFSYS 6805. This course deals with business-oriented programming in an object oriented environment. The emphasis will be on program definition, and tools and development in a client-server environment. The course will involve the study of objectoriented language in addition to object-oriented methodologies for systems development.

**INFSYS 6808 Internet Programming For Business: 3 semester hours**

Prerequisite: INFSYS 6805 Focus on web-based applications development for business. It will begin with the fundamentals of web-based computing, including web client and server interaction, the MIME standard, server and client data frame headers, the CGI standard, and error conditions as they pertain to business applications. In addition, JAVA will be introduced to build web-based GUI-interfaces and back-end servers. Finally, business applications issues such as firewalls, proxy servers and data encryption using secure servers will be included.

**INFSYS 6833 Decision Support Systems for Business Intelligence: 3 semester hours**

Prerequisite: LOG OM 5300 Applications of intelligent decision support systems to support business intelligence are explored. DSS component design in response to decision making and business intelligence needs are discussed.

**INFSYS 6835 IT-Enabled Business: 3 semester hours**

Prerequisite: INFSYS 5800. IT-enabled business focuses on business models, processes, and activities made possible by the internet. The course includes theoretic aspects of e-commerce: consumer relationship management, supply chain management, inventory management, business strategy, auctions, and portals. Issues associated with electronic commerce such as security, privacy, content selection and rating, intellectual property rights, authentication, encryption, acceptable use policies, and legal liabilities are explored. Particular attention is paid to IT-enabled entrepreneurship and business creation, and IT use in small to medium sized enterprises. Case studies drawn from actual business applications will be used to reinforce theory.

**INFSYS 6836 Telecommunications: Design And Management: 3 semester hours**

Prerequisite: INFSYS 5800 (may be taken concurrently) The topic of telecommunications is addressed from both a technical and managerial viewpoint. In particular, the course will address issues such as communications components and services, local area network architecture, managerial implementations, organizational issues, and cost/benefit analyses.

**INFSYS 6837 Information Systems Architecture: 3 semester hours**

Prerequisite: INFSYS 6836 This course explores a wide range of topics necessary for understanding and managing distributed computing technology. A wide range of infrastructure and "middleware" architectural components will be explored. Finally, the course will provide a framework for understanding the capabilities and shortcomings of various distributed computing architectures, technical standards and their implications for interoperability of components.

**INFSYS 6838 Business Processes: Design, Management & Integration: 3 semester hours**

Prerequisite: INFSYS 5800. Major business processes are identified and analyzed. Issues related to characteristics, goals, benefits and costs of enterprise-wide design, and the role of information technology during the design process are discussed. Workflow automation, process modeling, analysis, automation, and redesign techniques are discussed, including the following: process inputs & entrance criteria, process outputs & exit criteria, feedback mechanisms & process correction, alternate theoretical frames for business process design, and impacts on business process design from socio-cultural forces. Case studies are used to illustrate the concepts.

**INFSYS 6840 Information Systems Analysis: 3 semester hours**

Prerequisite: INFSYS 6805 The theory and practice of structured analysis are presented. Topics may include: traditional vs. structured analysis methods, requirements analysis, user/analyst interaction, investigation of existing systems, human/machine interfaces, CASE tools, and workbenches.

**INFSYS 6845 Database Management Systems: 3 semester hours**

Prerequisites: INFSYS 5800 The course introduces the concepts of Database Management Systems for business applications. Issues in database architecture, design, administration, and implementation are covered. Projects are assigned on a mainframe DBMS and a microcomputer based DBMS to illustrate the concepts & applications.

**INFSYS 6846 Management Of Global Sourcing: 3 semester hours**

Same as INTL BUS 6846. Prerequisite: INFSYS 5800. Largely fostered by the spread of the Internet, global software development standards, global software packages, and fewer trade restrictions, organizations now regularly source software development, software maintenance, systems upgrades, platform transitions, help desks, and other IS-related work globally This course covers topics to help organizations manage global sourcing of IS work, including sourcing strategies, sourcing models (captive, joint venture, outsourcing), role of program management offices, supplier selection, engagement models, and special practices required to manage globally dispersed teams. Risk mitigation practices associated with cultural, legal, political, infrastructure, logistical, and human resource issues are also addressed.

**INFSYS 6847 Financial And Project Management: 3 semester hours**

Prerequisite: INFSYS 5800 Effective project management ensures that a project is completed on time, within budget, and has high quality. The purpose of this class is to examine the task of project resource management with a focus on IT and services. It will cover conventional aspects of project management, such as the project evaluation, planning, roles, responsibilities, scheduling, and tracking. In addition, this class will examine risk management, change management, critical chain management, build vs. buy analysis, package vs. custom solutions, vendor qualification and selection, and the roles of certification in the process. The class will also cover the management of programs or a portfolio of IT projects.

**INFSYS 6848 Knowledge Management And Business Intelligence: 3 semester hours**

Prerequisite: INFSYS 5800 Knowledge management (KM) is the process of creating, and drawing value from, an organization's intellectual assets. It deals with how to best leverage the organization's knowledge internally as well as externally. The emphasis on knowledge management within business organizations has risen dramatically in the last few years, to some extent as a result of the rapid progress in information technology capabilities. The course covers the following topics: KM tools, technologies, and systems, including knowledge repositories, knowledge portals, and expert seeker systems, creating and sustaining a knowledge sharing culture, managing and measuring intellectual capital, managing knowledge in networked organizations, including interorganizational alliances and supply chains, aligning knowledge with business strategy, risks of knowledge loss and knowledge leakage, business intelligence, and social aspects of knowledge management.

**INFSYS 6849 Data Warehouse Design and Implementation: 3 semester hours**

Prerequisites: INFSYS 6845 or consent of instructor. Course will cover different design configurations for structuring and organizing data in a data warehouse. Formal methodologies for the development of data warehouses will also be discussed and implemented.

**INFSYS 6850 Information Systems Design: 3 semester hours**

Prerequisites: INFSYS 6840 and INFSYS 6845 This course builds upon the analysis techniques presented in INFSYS 6840. It requires the student, usually working in a group to design and implement a system in a real-world environment. Advanced design concepts are presented to support the students in their project work.

**INFSYS 6851 Practicum in Business Intelligence: 3 semester hours**

Prerequisites: INFSYS 6833, INFSYS 6849, and LOG OM 6345. This course will provide the context for students to integrate, synthesize and apply their Business Intelligence skills in an actual business organization. Project work will be jointly supervised and coordinated by a faculty member and a supervisor in the relevant business organization.



***INFSYS 6881 Management Of Transnational Information Systems: 3 semester hours***

Same as INTL BUS 6881. Prerequisites: INFSYS 5800, INFSYS 6825 (may be taken concurrently) The course presents concepts of managing global information technology. Issues covered include: global information technology, systems development, electronic data interchange, cross-border data flows, and national and international information structures. Further topics may include information technology enabled economic development, global outsourcing of information systems services, and social, organizational and ethical implications.

***INFSYS 6891 Seminar In Management Information Systems: 3 semester hours***

Prerequisites: INFSYS 5800 Topics of current interest in management information systems. Topics may include international information systems, electronic commerce, decision support systems, information systems strategy, telecommunications, and information systems management.

***INFSYS 7890 IS Research Seminar: 3 semester hours***

Prerequisites: INFSYS 5800; Admittance into the Ph.D. Program Analysis of the research problems, approaches, and findings of Management Information Systems Research. May be repeated for credit when the subject matter is different.

***INFSYS 7891 Quantitative Research Methods In IS: 3 semester hours***

Prerequisites: INFSYS 5800; Admittance into the Ph.D. Program Analysis of research design and validity of quantitative methods applied to the study of Management Information Systems, including laboratory experiments, sample surveys, and field experiments.

***INFSYS 7892 Doctoral Seminar In Current Information Systems Topics: 3 semester hours***

Prerequisites: INFSYS 5800. Admittance into the Ph.D. Program Theoretical and empirical analysis of topics of long-term importance to the IS field such as systems analysis and design, systems development and implementation, and database management. A historical perspective of the technical and behavioral issues associated to IS artifacts is provided such that contemporary issues and trends can be appreciated.

***INFSYS 7893 Special Topics In Information Systems: 3 semester hours***

Prerequisite: Consent of Instructor and admittance into the Ph.D. Program In-depth analysis of special topics in IS research. May be repeated for credit when the subject matter is different.

***INFSYS 7894 Theoretical Foundations Of Information Systems Research: 3 semester hours***

Prerequisites: INFSYS 5800, Admittance to the Ph.D. Program The theoretical foundations of information systems are largely built upon the theories from other disciplines, including the physical sciences, computer science, sociology, psychology, and mathematics. In this course, we survey a variety of theoretical foundations from other disciplines by reading the original works, critical responses to these theories, and representative applications of these theories in the IS domain.

**Courses*****INFSYS 1012 Learning to Program Using Virtual Worlds: 3 semester hours***

Introduces modern programming principles without requiring the knowledge of a traditional programming language. Instead, this course utilizes a novel graphical approach that enables the student to create, populate, and manipulate virtual 3-dimensional worlds which resemble video games. The development of these worlds allows students to gain direct experience and skills in using computers to solve problems. Students will create worlds of varying complexity.

***INFSYS 1800 Computers And Information Systems: 3 semester hours***

This course covers the basic concepts of networked computers including the basics of file management on local and remote computers, electronic mail, Internet browsers, and web page development. Students are also exposed to applications used in business for solving problems, communicating, and making informed decisions, including word processors, presentation software, and electronic spreadsheets. Students will also develop business applications using a popular programming language or database management tool. Credit cannot be granted for both CMP SCI 1010 and INFSYS 1800.

***INFSYS 2800 Information Systems Concepts And Applications: 3 semester hours***

Prerequisites: INFSYS 1800 or satisfactory performance on proficiency exam. Course covers concepts of information systems as they relate to business functions, including web page design and e-commerce, telecommunications, systems analysis and design, ethics of information system design and use, information security, foundations of database systems and integrated business information systems. Students will also gain valuable strategies for career development, contact management, and networking.

***INFSYS 3806 Managerial Applications Of Object-Oriented Programming I: 3 semester hours***

Prerequisites: INFSYS 1800 or CMP SCI 1250, and a 2.0 overall GPA. The course provides a study of the UNIX operating system and the C++ programming language as they pertain to managerial applications. In addition, the course will introduce the use of object-oriented programming methodologies.

***INFSYS 3807 Legacy Systems: 3 semester hours***

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. Structured COBOL programming techniques for business applications are presented. Included are report generation, control breaks, output editing, debugging, tables, sort concepts, job control language, utilities, partitioned data sets, and updating of files.

***INFSYS 3810 Information Systems Analysis: 3 semester hours***

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806 or permission of instructor. Aspects and methods for managing the computer and information resources of organizations. Topics include: project management, aligning IS plans with corporate plans, MIS organizational structures, demonstrating the value of systems, facility management, purchase decisions, software acquisition, software metrics, security issues, and economic evaluation, as they relate to information resources. Special cases of systems, such as Enterprise Resource Planning (EPR) systems, Supply Chain Systems, and BPO will be discussed.

***INFSYS 3815 Object Oriented Applications In Business: 3 semester hours***

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. Object-oriented programming techniques for business applications are presented. The topics are implemented in a C++ environment.



**INFSYS 3816 Managerial Application Of Object-Oriented Programming II: 3 semester hours**

Prerequisites: INFSYS 3806 and a minimum overall GPA of 2.0. This course expands object-oriented skills taught in INFSYS 3806. The emphasis in this course is on object-oriented development tools and development in a client-server environment. The data management tools will include the use of SQL to access serverbased databases.

**INFSYS 3841 Enterprise Information Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. Aspects and methods for managing the computer and information resources of organizations. Topics include: aligning IS plans with corporate plans, MIS organizational structures, demonstrating the value of MIS to senior management, facility management, purchase decisions, software acquisition, software metrics, project management, security issues, and economic evaluation, as they relate to information resources.

**INFSYS 3842 Management Of Telecommunications: 3 semester hours**

Prerequisites: INFSYS 1800 and a 2.0 overall GPA. The technical and managerial aspects of telecommunications as they apply to the business environment are discussed. Issues include: communications components and services, local area network architecture, managerial implimentations, organizational issues, and cost/benefits analyses.

**INFSYS 3843 Decision Support Systems for Business Intelligence: 3 semester hours**

Prerequisites: LOG OM 3300 and a minimum campus GPA of 2.0 Applications of intelligent decision support systems to support business intelligence are explored. DSS component design in response to decision making and business intelligence needs are discussed.

**INFSYS 3844 Developing Business Applications In NET: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. This course will enable students to design, implement, and debug object-oriented and data driven business applications in Visual Basic.NET. Students will learn application design choices, object-oriented design principles, event-driven programming, user interface programming using Windows Forms and user interface controls, data binding and database access using ADO.NET, exception handling, debugging and effective ways of working with Visual Studio.NET.

**INFSYS 3845 Database Management Systems: 3 semester hours**

Prerequisites: INFSYS 2800 and a minimum campus GPA of 2.0. This course provides an introduction to the design and use of databases in meeting business information needs. Topics include database planning, conceptual design, and data administration. The concepts are studied with projects involving the use of a current database management system.

**INFSYS 3846 E-Commerce: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course provides an understanding of strategies, managerial issues, and technologies pertaining to electronic commerce in organizations. Topics include: history, business models, the virtual value chain, electronic markets, impact on organizational strategy and industry structure, analysis of successful strategies, and other emerging issues (legal, ethical, regulatory) related to managing electronic commerce, and the technical infrastructure enabling electronic commerce.

**INFSYS 3847 Web Design: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course focuses on web page planning, design, layout and construction. Topics covered include: setting up and maintaining a web site; understanding site structure, presentation, navigation and content management. HTML/XML, CSS, Dreamweaver, Fireworks, Flash, Photoshop, data access, scripting languages, and various other technologies and tools will be discussed.

**INFSYS 3848 Security And Information Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course addresses the challenge of assuring security in information systems - networked, embedded, and stand alone. Topics include: security policies, models, tools, and techniques for enforcement. The course also examines flawed security policies, and the consequences of penetration and disruption of information systems.

**INFSYS 3890 Internship In Management Information Systems: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of management information systems electives at the 3000 level or above and have consent of supervising instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of management information systems where they apply the knowledge and skills learned in the classroom. Professional development obtaining specialized work experience are primary goals. A management information systems faculty member will monitor the student's program with the student providing a formal written report at the end of the project. INFSYS 3890 may not be counted toward the minimum credit hours of management information systems electives required for a Management Information Systems degree.

**INFSYS 3895 Special Administrative Problems - Management Information Systems: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**INFSYS 3898 Seminar in Information Systems Management: 1-3 semester hours**

Prerequisites: To be determined each time course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of information systems. May be repeated for credit with different topics.

**INFSYS 3899 Independent Study In Information Systems: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in information systems under the supervision of a full-time information systems faculty member.

**INFSYS 4850 Information Systems Design: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; INFSYS 3810, INFSYS 3816 and INFSYS 3845. System design, implementation, and methods of systems installation and operation are presented. A system development project is required.

**INFSYS 5800 Management Information Systems: 3 semester hours**

Same as P P ADM 6800. This course provides an overview of the established and contemporary issues related to information systems within organizations. Topics include the practices and tools associated with topics such as the management of IS-based investment projects, the design and implementation of IS, the alignment of IS strategy with organizational strategy, information security and privacy, and gaining a competitive advantage through IS.

**INFSYS 5899 Individual Research in Information Systems: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Information Systems under the guidance of a specific professor.

**INFSYS 6805 Applications Of Programming For Business Solutions: 3 semester hours**

Prerequisite: ECON 4105. This course provides a study of business-oriented programming. A programming language will be introduced and discussed in detail. Emphasis will be on program definition and the use of such programs in business-oriented applications.

**INFSYS 6806 Managerial Applications Of Object-Oriented Technologies: 3 semester hours**

Prerequisite: INFSYS 6805. This course deals with business-oriented programming in an object oriented environment. The emphasis will be on program definition, and tools and development in a client-server environment. The course will involve the study of object-oriented language in addition to object-oriented methodologies for systems development.

**INFSYS 6808 Internet Programming For Business: 3 semester hours**

Prerequisite: INFSYS 6805 Focus on web-based applications development for business. It will begin with the fundamentals of web-based computing, including web client and server interaction, the MIME standard, server and client data frame headers, the CGI standard, and error conditions as they pertain to business applications. In addition, JAVA will be introduced to build web-based GUI-interfaces and back-end servers. Finally, business applications issues such as firewalls, proxy servers and data encryption using secure servers will be included.

**INFSYS 6833 Decision Support Systems for Business Intelligence: 3 semester hours**

Prerequisite: LOG OM 5300 Applications of intelligent decision support systems to support business intelligence are explored. DSS component design in response to decision making and business intelligence needs are discussed.

**INFSYS 6835 IT-Enabled Business: 3 semester hours**

Prerequisite: INFSYS 5800. IT-enabled business focuses on business models, processes, and activities made possible by the internet. The course includes theoretic aspects of e-commerce: consumer relationship management, supply chain management, inventory management, business strategy, auctions, and portals. Issues associated with electronic commerce such as security, privacy, content selection and rating, intellectual property rights, authentication, encryption, acceptable use policies, and legal liabilities are explored. Particular attention is paid to IT-enabled entrepreneurship and business creation, and IT use in small to medium sized enterprises. Case studies drawn from actual business applications will be used to reinforce theory.

**INFSYS 6836 Telecommunications: Design And Management: 3 semester hours**

Prerequisite: INFSYS 5800 (may be taken concurrently) The topic of telecommunications is addressed from both a technical and managerial viewpoint. In particular, the course will address issues such as communications components and services, local area network architecture, managerial implementations, organizational issues, and cost/benefit analyses.

**INFSYS 6837 Information Systems Architecture: 3 semester hours**

Prerequisite: INFSYS 6836 This course explores a wide range of topics necessary for understanding and managing distributed computing technology. A wide range of infrastructure and "middleware" architectural components will be explored. Finally, the course will provide a framework for understanding the capabilities and shortcomings of various distributed computing architectures, technical standards and their implications for interoperability of components.

**INFSYS 6838 Business Processes: Design, Management & Integration: 3 semester hours**

Prerequisite: INFSYS 5800. Major business processes are identified and analyzed. Issues related to characteristics, goals, benefits and costs of enterprise-wide design, and the role of information technology during the design process are discussed. Workflow automation, process modeling, analysis, automation, and redesign techniques are discussed, including the following: process inputs & entrance criteria, process outputs & exit criteria, feedback mechanisms & process correction, alternate theoretical frames for business process design, and impacts on business process design from socio-cultural forces. Case studies are used to illustrate the concepts.

**INFSYS 6840 Information Systems Analysis: 3 semester hours**

Prerequisite: INFSYS 6805 The theory and practice of structured analysis are presented. Topics may include: traditional vs. structured analysis methods, requirements analysis, user/analyst interaction, investigation of existing systems, human/machine interfaces, CASE tools, and workbenches.

**INFSYS 6845 Database Management Systems: 3 semester hours**

Prerequisites: INFSYS 5800 The course introduces the concepts of Database Management Systems for business applications. Issues in database architecture, design, administration, and implementation are covered. Projects are assigned on a mainframe DBMS and a microcomputer based DBMS to illustrate the concepts & applications.

**INFSYS 6846 Management Of Global Sourcing: 3 semester hours**

Same as INTL BUS 6846. Prerequisite: INFSYS 5800. Largely fostered by the spread of the Internet, global software development standards, global software packages, and fewer trade restrictions, organizations now regularly source software development, software maintenance, systems upgrades, platform transitions, help desks, and other IS-related work globally This course covers topics to help organizations manage global sourcing of IS work, including sourcing strategies, sourcing models (captive, joint venture, outsourcing), role of program management offices, supplier selection, engagement models, and special practices required to manage globally dispersed teams. Risk mitigation practices associated with cultural, legal, political, infrastructure, logistical, and human resource issues are also addressed.

**INFSYS 6847 Financial And Project Management: 3 semester hours**

Prerequisite: INFSYS 5800 Effective project management ensures that a project is completed on time, within budget, and has high quality. The purpose of this class is to examine the task of project resource management with a focus on IT and services. It will cover conventional aspects of project management, such as the project evaluation, planning, roles, responsibilities, scheduling, and tracking. In addition, this class will examine risk management, change management, critical chain management, build vs. buy analysis, package vs. custom solutions, vendor qualification and selection, and the roles of certification in the process. The class will also cover the management of programs or a portfolio of IT projects.

**INFSYS 6848 Knowledge Management And Business Intelligence: 3 semester hours**

Prerequisite: INFSYS 5800 Knowledge management (KM) is the process of creating, and drawing value from, an organization's intellectual assets. It deals with how to best leverage the organization's knowledge internally as well as externally. The emphasis on knowledge management within business organizations has risen dramatically in the last few years, to some extent as a result of the rapid progress in information technology capabilities. The course covers the following topics: KM tools, technologies, and systems, including knowledge repositories, knowledge portals, and expert seeker systems, creating and sustaining a knowledge sharing culture, managing and measuring intellectual capital, managing knowledge in networked organizations, including interorganizational alliances and supply chains, aligning knowledge with business strategy, risks of knowledge loss and knowledge leakage, business intelligence, and social aspects of knowledge management.

**INFSYS 6849 Data Warehouse Design and Implementation: 3 semester hours**

Prerequisites: INFSYS 6845 or consent of instructor. Course will cover different design configurations for structuring and organizing data in a data warehouse. Formal methodologies for the development of data warehouses will also be discussed and implemented.

**INFSYS 6850 Information Systems Design: 3 semester hours**

Prerequisites: INFSYS 6840 and INFSYS 6845 This course builds upon the analysis techniques presented in INFSYS 6840. It requires the student, usually working in a group to design and implement a system in a real-world environment. Advanced design concepts are presented to support the students in their project work.

**INFSYS 6851 Practicum in Business Intelligence: 3 semester hours**

Prerequisites: INFSYS 6833, INFSYS 6849, and LOG OM 6345. This course will provide the context for students to integrate, synthesize and apply their Business Intelligence skills in an actual business organization. Project work will be jointly supervised and coordinated by a faculty member and a supervisor in the relevant business organization.

**INFSYS 6881 Management Of Transnational Information Systems: 3 semester hours**

Same as INTL BUS 6881. Prerequisites: INFSYS 5800, INFSYS 6825 (may be taken concurrently) The course presents concepts of managing global information technology. Issues covered include: global information technology, systems development, electronic data interchange, cross-border data flows, and national and international information structures. Further topics may include information technology enabled economic development, global outsourcing of information systems services, and social, organizational and ethical implications.

**INFSYS 6891 Seminar In Management Information Systems: 3 semester hours**

Prerequisites: INFSYS 5800 Topics of current interest in management information systems. Topics may include international information systems, electronic commerce, decision support systems, information systems strategy, telecommunications, and information systems management.

**INFSYS 7890 IS Research Seminar: 3 semester hours**

Prerequisites: INFSYS 5800; Admittance into the Ph.D. Program Analysis of the research problems, approaches, and findings of Management Information Systems Research. May be repeated for credit when the subject matter is different.

**INFSYS 7891 Quantitative Research Methods In IS: 3 semester hours**

Prerequisites: INFSYS 5800; Admittance into the Ph.D. Program Analysis of research design and validity of quantitative methods applied to the study of Management Information Systems, including laboratory experiments, sample surveys, and field experiments.

**INFSYS 7892 Doctoral Seminar In Current Information Systems Topics: 3 semester hours**

Prerequisites: INFSYS 5800. Admittance into the Ph.D. Program Theoretical and empirical analysis of topics of long-term importance to the IS field such as systems analysis and design, systems development and implementation, and database management. A historical perspective of the technical and behavioral issues associated to IS artifacts is provided such that contemporary issues and trends can be appreciated.

**INFSYS 7893 Special Topics In Information Systems: 3 semester hours**

Prerequisite: Consent of Instructor and admittance into the Ph.D. Program In-depth analysis of special topics in IS research. May be repeated for credit when the subject matter is different.

**INFSYS 7894 Theoretical Foundations Of Information Systems Research: 3 semester hours**

Prerequisites: INFSYS 5800, Admittance to the Ph.D. Program The theoretical foundations of information systems are largely built upon the theories from other disciplines, including the physical sciences, computer science, sociology, psychology, and mathematics. In this course, we survey a variety of theoretical foundations from other disciplines by reading the original works, critical responses to these theories, and representative applications of these theories in the IS domain.

## Interdisciplinary Courses

### Courses

**INTDSC 1003 University Studies: 1 semester hour**

This course, required of all new freshmen in the College of Arts and Science and the College of Fine Arts and Communication, is designed to assist students in making the transition to the university experience and to UMSL by giving students the knowledge and tools needed to succeed as a scholar. The course will also familiarize students with the relationship between their education and their career and personal goals, and will assist in developing positive connections with faculty, staff, and peers at UMSL. Students will learn about faculty expectations, support services, and student life, as well as academic disciplines. The course counts toward the 120 credit hours needed for graduation.



**INTDSC 1030 Language and Communicative Arts Across the Disciplines: 3 semester hours**

Prerequisites: None. This course is designed to advance the academic skills of university-level students. This course consists of listening to academic lectures across the disciplines; reading texts and articles to supplement lectures; writing summaries, essays and responses to exam questions; understanding and editing grammar and sentence structure; phonetics and word stress patterns; presentation skills; and advancing skills in note-taking, critical thinking, and comprehension of advanced college-level vocabulary of various fields of study.

**INTDSC 1220 Special Topics In Gerontology: 3 semester hours**

Same as GERON 1220 Selected topics dealing with various aspects of gerontology. The specific content of this course will vary from semester to semester. The course may be repeated with permission from the Gerontology Director.

**INTDSC 1999 Big History: From the Big Bang to the Blackberry: 9 semester hours**

An introduction to the humanities, social science, and science disciplines through a sweeping overview of natural and human history from the Big Bang of the present. Course will include lectures from faculty in various Arts and Sciences units, films, field trips, and group discussions.

**INTDSC 3010 Peer Mentoring: 1-3 semester hours**

Prerequisites: Instructor's consent required. The objective of this interdisciplinary course is to prepare and support undergraduate students working across campus as learning assistants, tutors, peer mentors, student leaders, etc. The course will support the development of general pedagogical knowledge of active learning, leadership and facilitation skills, and effective communication and listening skills, that they will use to facilitate learning in settings where students are working collaboratively, reviewing course content, or receiving supplemental instruction to guide their success. This course may be repeated for up to 6 credit hours.

## Courses

**INTDSC 1003 University Studies: 1 semester hour**

This course, required of all new freshmen in the College of Arts and Science and the College of Fine Arts and Communication, is designed to assist students in making the transition to the university experience and to UMSL by giving students the knowledge and tools needed to succeed as a scholar. The course will also familiarize students with the relationship between their education and their career and personal goals, and will assist in developing positive connections with faculty, staff, and peers at UMSL. Students will learn about faculty expectations, support services, and student life, as well as academic disciplines. The course counts toward the 120 credit hours needed for graduation.

**INTDSC 1030 Language and Communicative Arts Across the Disciplines: 3 semester hours**

Prerequisites: None. This course is designed to advance the academic skills of university-level students. This course consists of listening to academic lectures across the disciplines; reading texts and articles to supplement lectures; writing summaries, essays and responses to exam questions; understanding and editing grammar and sentence structure; phonetics and word stress patterns; presentation skills; and advancing skills in note-taking, critical thinking, and comprehension of advanced college-level vocabulary of various fields of study.

**INTDSC 1220 Special Topics In Gerontology: 3 semester hours**

Same as GERON 1220 Selected topics dealing with various aspects of gerontology. The specific content of this course will vary from semester to semester. The course may be repeated with permission from the Gerontology Director.

**INTDSC 1999 Big History: From the Big Bang to the Blackberry: 9 semester hours**

An introduction to the humanities, social science, and science disciplines through a sweeping overview of natural and human history from the Big Bang of the present. Course will include lectures from faculty in various Arts and Sciences units, films, field trips, and group discussions.

**INTDSC 3010 Peer Mentoring: 1-3 semester hours**

Prerequisites: Instructor's consent required. The objective of this interdisciplinary course is to prepare and support undergraduate students working across campus as learning assistants, tutors, peer mentors, student leaders, etc. The course will support the development of general pedagogical knowledge of active learning, leadership and facilitation skills, and effective communication and listening skills, that they will use to facilitate learning in settings where students are working collaboratively, reviewing course content, or receiving supplemental instruction to guide their success. This course may be repeated for up to 6 credit hours.

## International Business

### Courses

**INTL BUS 3280 The Law Of International Business Transactions: 3 semester hours**

Prerequisites: BUS AD 2900 or consent of the instructor. A study of the role and function of International Law and national laws in the regulation of international business transactions. The impact of various legal regimes on import/export transactions, foreign investments, and the operations of multinational enterprises will be included. The role of national governments, supra-national governmental organizations, and non-governmental organizations in forming and administering the international legal environment will be studied.

**INTL BUS 3281 Business In China: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; and junior standing This course introduces students to the practices of doing business in China. Students will be introduced to the Chinese economic and business environment. Issues related to trade and foreign direct investment in China will be discussed. The course adopts an innovative approach, utilizing lectures, case analysis, projects, and student presentations.

**INTL BUS 3282 Managing The Global Workforce: 3 semester hours**

Prerequisite: A minimum of 2.0 campus GPA. In addition, MGMT 3600 and at least one of the following: MGMT 3611 or MGMT 3621 or enrollment in Honors College or consent of instructor. A study of the international dimensions of organizational behavior and human resource management. The course provides an overview of the tools and skills that are necessary to understand and manage people in global organizations. Topics include motivation, leadership, communication, hiring, training, and compensation.

**INTL BUS 3283 International Business And Society: 3 semester hours**

Encompasses the readings, lectures, company and government agency visits, and cultural visits that comprise annual Country Study Tours (e.g., Austria, Japan, Thailand, etc.). The program includes 45 contact hours or more of classroom lectures covering aspects of the chosen country's business and society, in-depth pre-departure cross-cultural orientation and training supplemented by briefings on the country's economy and on U.S. market penetration by the Commercial Service, U.S. Embassy; a briefing by the in-country State of Missouri representative; briefings by host country agencies; company visits and factory tours; and tours of cultural sites. Student evaluation will be based on active participation and on a research paper based on readings, lectures, interviews and field observations.



**INTL BUS 3284 The Japanese Management System: 3 semester hours**

Prerequisites: MGMT 3600 This course provides an introduction to various aspects of the contemporary Japanese business system. The emphasis is on interpretation of issues from a managerial perspective. Topics include an overview of Japan's economic growth, government policies, industrial and financial structure of Japanese business, labor-management relations, internal management practices, international competitive strategies, managing U.S. subsidiaries in Japan, penetrating the Japanese market, Japanese investment in the U.S.A., and current issues in U.S.-Japan economic relations.

**INTL BUS 3285 Role Of The Global Corporation: 3 semester hours**

Prerequisites: A minimum 2.0 campus GPA and MGMT 3600 or permission of the instructor. The purpose of this course is to create awareness of controversial issues about international business. Students will gain a better understanding of resistance to and criticism of international business and will become better prepared for dealing with these issues and problems.

**INTL BUS 3286 International Business Ethics: 3 semester hours**

Same as PHIL 3286. This course will deal with moral issues that are raised by the increasing globalization of business. Apart from the general issue of whether this globalization is itself a good thing, we will discuss such issues as child labor, working conditions, safety standards, environmental policies, bribery and other "corrupt" practices, respect for intellectual property, etc. Frequent short papers will be assigned.

**INTL BUS 3289 Practicum In International Business: 3 semester hours**

Prerequisites: At least one international business course, 2.0 campus GPA and completion of an approval form. Students will apply both their language skills and knowledge of international business by working for a three month period in an organization located outside the student's country of origin. This course requires students to prepare a research report summarizing the global experience and how it relates to the international business program.

**INTL BUS 3290 Internship In International Business: 3-6 semester hours**

Prerequisites: ECON 1001 and ECON 1002, ACCTNG 2400 and ACCTNG 2410, an additional 12 hours in Business Administration, concurrent enrollment in a UM overseas program; also a minimum overall gpa of 2.0. The internship will be a supervised field experience in a business/ international organization at a foreign site. Students will work for 10 weeks on projects directed by host-organization supervisors in consultation with a UM-St. Louis faculty member. Prior to the field experience students will receive training that includes familiarization with the language and practices of the country's business, the background of the host firm, and international information sources. The student will complete a written report of his/her project. Course may not be repeated for more than 6 hours credit.

**INTL BUS 3299 Independent Study In International Business: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator of the specific discipline. Special individual study in international business under the supervision of an approved faculty member.

**INTL BUS 3580 International Corporate Finance: 3 semester hours**

Same as FINANCE 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This course explores corporate finance in the context of a global environment. Financial managers for an international firm must deal with all the normal problems faced by domestic corporations plus additional foreign exchange and political risks. Class discussions will focus on applying financial techniques to decision making in foreign operations. Students are required to work in a group to undertake a project related to international finance.

**INTL BUS 3582 International Investments: 3 semester hours**

Same as FINANCE 3582. Prerequisites: FINANCE 3500. This course explores the concepts of investing and hedging risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.

**INTL BUS 3680 International Management: 3 semester hours**

Same as MGMT 3680. Prerequisites: A minimum 2.0 campus GPA. In addition, ECON 1002 and MGMT 3600; or consent of the instructor. A study of international business and management practices. Topics covered include an introduction to international management and the multinational enterprise, the cultural environment of international management, planning in an international setting, organizing for international operations, directing international operations, international staffing, preparing employees for international assignments, and the control process in an international context.

**INTL BUS 3780 International Marketing: 3 semester hours**

Same as MKTG 3780. Prerequisites: MKTG 3700 and a 2.0 overall GPA. Marketing management problems, techniques and strategies needed to apply the marketing concept to the world marketplace. Understanding a country's cultural and environmental impact on the marketing plan is emphasized, as well as competing in markets of various cultures. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, and current economic and marketing issues are examined.

**INTL BUS 3787 Marketing in the European Union: 3 semester hours**

Same as MKTG 3787. Prerequisites: MKTG 3780 or instructor's permission. The European Union (EU) is both a major customer and major competitor of the United States. The inclusion of many of the Eastern European countries into the EU has added another challenge to our ability to trade in this area. The better we understand the people, institutions and policies of the EU, the better positioned we will be to conduct business effectively. This course will emphasize understanding the institutional structure that unites the European Union as well as the cultural and political diversity of its members, and provide insights into how business activity functions in the European Environment.

**INTL BUS 4280 International Business Experience: 0 semester hours**

Students with an International Business emphasis must complete one of the following international experience requirements: (a) study abroad for three or more credit hours, (b) complete a minimum of one year international experience (e.g., Peace Corps, volunteer work, missionary work, an international posting by an organization) within 5 years of entering the program, or (c) complete an international internship approved by the International Business Institute. May be taken on a satisfactory/unsatisfactory basis only.

**INTL BUS 4281 Entrepreneurship in the Global Environment: 3 semester hours**

Prerequisites: ECON 1002; ACCTNG 2410; MKTG 3700. This course explores changes in the planet's physical environment and ways of reversing, retarding or coping with those changes. Students will be required to develop proposals for new business ventures that have as a goal preservation or restoration of the natural environment.

**INTL BUS 4289 International Strategic Management: 3 semester hours**

Prerequisites: A minimum 2.0 campus GPA and INTL BUS 3282, MKTG 3780 and FINANCE 3580 or consent of instructor. A study of the international dimensions of strategic management. Provides an introduction to the key concepts and tools necessary for international competitive analysis. Topics include the international dimensions of strategy formulation and implementation, diversification, strategic alliances, and divestment.

**INTL BUS 4381 International Logistics And Operations Management: 3 semester hours**

Same as LOG OM 4381. Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of business logistics and supply chain strategies involving shipments across national boundaries. Topics include the effects of international agreements and regional trading blocks on supply chain strategies; the design of global logistics networks; managerial processes and systems for international production and distribution, and risk management for international logistics.

**INTL BUS 5289 International Business Strategies: 3 semester hours**

Prerequisites: BUS AD 5000 and ACCTNG 5400. This course focuses on those managerial issues which follow from the definition and implementation of corporate strategy for worldwide operations, as distinguished from purely domestic firms or those only marginally involved in international activities. It aims to develop an appreciation for the unique competitive, sociocultural and political environments in which international business takes place and the skills required to deal with these changes.

**INTL BUS 5290 Internship In International Business: 3 semester hours**

Prerequisites: Consent of IMBA Director. Students will apply both their language skills and knowledge of international business by working in an organization located outside the student's country of origin. This course requires students to submit regular evaluations and prepare a research report summarizing their global experience and how it relates to the international business program.

**INTL BUS 5381 International Logistics And Operations Management: 3 semester hours**

Same As LOG OM 5381. Prerequisites: LOG OM 5320 A study of international logistics and operations management strategy, planning and operations. Topics may include multinational logistics and supply chain strategies, global network design and sourcing, international transportation, distribution and operations, import-export, risk management, etc.

**INTL BUS 5480 International Accounting: 3 semester hours**

Same as: ACCTNG 5480. Prerequisites: ACCTNG 3402. Accounting practices for multinational businesses. Discussion of comparative financial accounting practices, the development of international accounting standards, and managerial accounting practices related to multinational operations.

**INTL BUS 5780 Seminar In International Marketing: 3 semester hours**

Same as MKTG 5780. Prerequisite: MKTG 5700. An advanced seminar on topics in international or global marketing. Possible topics include the globalization of trade, export marketing, international market opportunity analysis, and negotiation for international marketers. Students who take one version of this course (e.g., globalization of trade) can take a second version of the course (e.g., negotiation for international marketers) with prior permission.

**INTL BUS 6580 International Financial Management: 3 semester hours**

Same as FINANCE 6580. Prerequisite: FINANCE 6500. The objective of this course is to introduce students to financial issues for multinational firms. Besides covering basic tools and techniques, the class stresses the role of the financial manager in analysis and decision-making. Topics include the impact of international accounting and tax issues, capital budgeting in a foreign environment, transfer pricing, and global funding. Conceptual skills for lifelong learning experiences are emphasized. This course employs a lecture and case format with group discussions.

**INTL BUS 6581 Seminar In International Investments: 3 semester hours**

Same as FINANCE 6581. Prerequisite: FINANCE 6500. This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the comprehensive project report. A prior investments course is recommended but not required.

**INTL BUS 6846 Management Of Global Sourcing: 3 semester hours**

Same as INFSYS 6846. Prerequisite: INFSYS 5800. Largely fostered by the speed of the Internet, global software development standards, global software packages, and fewer trade restrictions, organizations now regularly source software development, software maintenance, systems upgrades, platform transitions, help desks, and other IS-related work globally. This course covers topics to help organizations manage global sourcing of IS work, including sourcing strategies, sourcing models (captive, joint venture, outsourcing), role of program management offices, supplier selection, engagement models, and special practices required to manage globally dispersed teams. Risk mitigation practices associated with cultural, legal, political, infrastructure, logistical, and human resource issues are also addressed.

**INTL BUS 6881 Management Of Transnational Information Systems: 3 semester hours**

Same as INFSYS 6881. Prerequisites: INFSYS 5800, INFSYS 6825 (may be taken concurrently). The course presents concepts of managing global information technology. Issues covered include: global information technology, systems development, electronic data interchange, cross-border data flows, and national and international information structures. Further topics may include information technology enabled economic development, global outsourcing of information systems services, and social, organizational and ethical implications.

**INTL BUS 7000 intl bus test: 1 semester hour**

## Courses

### ***INTL BUS 3280 The Law Of International Business Transactions: 3 semester hours***

Prerequisites: BUS AD 2900 or consent of the instructor. A study of the role and function of International Law and national laws in the regulation of international business transactions. The impact of various legal regimes on import/export transactions, foreign investments, and the operations of multinational enterprises will be included. The role of national governments, supra-national governmental organizations, and non-governmental organizations in forming and administering the international legal environment will be studied.

### ***INTL BUS 3281 Business In China: 3 semester hours***

Prerequisites: A minimum campus GPA of 2.0; and junior standing This course introduces students to the practices of doing business in China. Students will be introduced to the Chinese economic and business environment. Issues related to trade and foreign direct investment in China will be discussed. The course adopts an innovative approach, utilizing lectures, case analysis, projects, and student presentations.

### ***INTL BUS 3282 Managing The Global Workforce: 3 semester hours***

Prerequisite: A minimum of 2.0 campus GPA. In addition, MGMT 3600 and at least one of the following: MGMT 3611 or MGMT 3621 or enrollment in Honors College or consent of instructor. A study of the international dimensions of organizational behavior and human resource management. The course provides an overview of the tools and skills that are necessary to understand and manage people in global organizations. Topics include motivation, leadership, communication, hiring, training, and compensation.

### ***INTL BUS 3283 International Business And Society: 3 semester hours***

Encompasses the readings, lectures, company and government agency visits, and cultural visits that comprise annual Country Study Tours, (e.g., Austria, Japan, Thailand, etc.). The program includes 45 contact hours or more of classroom lectures covering aspects of the chosen country's business and society, in-depth pre-departure cross-cultural orientation and training supplemented by briefings on the country's economy and on U.S. market penetration by the Commercial Service, U.S. Embassy; a briefing by the in-country State of Missouri representative; briefings by host country agencies; company visits and factory tours; and tours of cultural sites. Student evaluation will be based on active participation and on a research paper based on readings, lectures, interviews and field observations.

### ***INTL BUS 3284 The Japanese Management System: 3 semester hours***

Prerequisites: MGMT 3600 This course provides an introduction to various aspects of the contemporary Japanese business system. The emphasis is on interpretation of issues from a managerial perspective. Topics include an overview of Japan's economic growth, government policies, industrial and financial structure of Japanese business, labor-management relations, internal management practices, international competitive strategies, managing U.S. subsidiaries in Japan, penetrating the Japanese market, Japanese investment in the U.S.A., and current issues in U.S. Japan economic relations.

### ***INTL BUS 3285 Role Of The Global Corporation: 3 semester hours***

Prerequisites: A minimum 2.0 campus GPA and MGMT 3600 or permission of the instructor. The purpose of this course is to create awareness of controversial issues about international business. Students will gain a better understanding of resistance to and criticism of international business and will become better prepared for dealing with these issues and problems.

### ***INTL BUS 3286 International Business Ethics: 3 semester hours***

Same as PHIL 3286. This course will deal with moral issues that are raised by the increasing globalization of business. Apart from the general issue of whether this globalization is itself a good thing, we will discuss such issues as child labor, working conditions, safety standards, environmental policies, bribery and other "corrupt" practices, respect for intellectual property, etc. Frequent short papers will be assigned.

### ***INTL BUS 3289 Practicum In International Business: 3 semester hours***

Prerequisites: At least one international business course, 2.0 campus GPA and completion of an approval form. Students will apply both their language skills and knowledge of international business by working for a three month period in an organization located outside the student's country of origin. This course requires students to prepare a research report summarizing the global experience and how it relates to the international business program.

### ***INTL BUS 3290 Internship In International Business: 3-6 semester hours***

Prerequisites: ECON 1001 and ECON 1002, ACCTNG 2400 and ACCTNG 2410, an additional 12 hours in Business Administration, concurrent enrollment in a UM overseas program; also a minimum overall gpa of 2.0. The internship will be a supervised field experience in a business/ international organization at a foreign site. Students will work for 10 weeks on projects directed by host-organization supervisors in consultation with a UM-St. Louis faculty member. Prior to the field experience students will receive training that includes familiarization with the language and practices of the country's business, the background of the host firm, and international information sources. The student will complete a written report of his/her project. Course may not be repeated for more than 6 hours credit.

### ***INTL BUS 3299 Independent Study In International Business: 1-3 semester hours***

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator of the specific discipline. Special individual study in international business under the supervision of an approved faculty member.

### ***INTL BUS 3580 International Corporate Finance: 3 semester hours***

Same as FINANCE 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This course explores corporate finance in the context of a global environment. Financial managers for an international firm must deal with all the normal problems faced by domestic corporations plus additional foreign exchange and political risks. Class discussions will focus on applying financial techniques to decision making in foreign operations. Students are required to work in a group to undertake a project related to international finance.

### ***INTL BUS 3582 International Investments: 3 semester hours***

Same as FINANCE 3582. Prerequisites: FINANCE 3500. This course explores the concepts of investing and hedging risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.

**INTL BUS 3680 International Management: 3 semester hours**

Same as MGMT 3680. Prerequisites: A minimum 2.0 campus GPA. In addition, ECON 1002 and MGMT 3600; or consent of the instructor. A study of international business and management practices. Topics covered include an introduction to international management and the multinational enterprise, the cultural environment of international management, planning in an international setting, organizing for international operations, directing international operations, international staffing, preparing employees for international assignments, and the control process in an international context.

**INTL BUS 3780 International Marketing: 3 semester hours**

Same as MKTG 3780. Prerequisites: MKTG 3700 and a 2.0 overall GPA. Marketing management problems, techniques and strategies needed to apply the marketing concept to the world marketplace. Understanding a country's cultural and environmental impact on the marketing plan is emphasized, as well as competing in markets of various cultures. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, and current economic and marketing issues are examined.

**INTL BUS 3787 Marketing in the European Union: 3 semester hours**

Same as MKTG 3787. Prerequisites: MKTG 3780 or instructor's permission. The European Union (EU) is both a major customer and major competitor of the United States. The inclusion of many of the Eastern European countries into the EU has added another challenge to our ability to trade in this area. The better we understand the people, institutions and policies of the EU, the better positioned we will be to conduct business effectively. This course will emphasize understanding the institutional structure that unites the European Union as well as the cultural and political diversity of its members, and provide insights into how business activity functions in the European Environment.

**INTL BUS 4280 International Business Experience: 0 semester hours**

Students with an International Business emphasis must complete one of the following international experience requirements: (a) study abroad for three or more credit hours, (b) complete a minimum of one year international experience (e.g., Peace Corps, volunteer work, missionary work, an international posting by an organization) within 5 years of entering the program, or (c) complete an international internship approved by the International Business Institute. May be taken on a satisfactory/unsatisfactory basis only.

**INTL BUS 4281 Entrepreneurship in the Global Environment: 3 semester hours**

Prerequisites: ECON 1002; ACCTNG 2410; MKTG 3700. This course explores changes in the planet's physical environment and ways of reversing, retarding or coping with those changes. Students will be required to develop proposals for new business ventures that have as a goal preservation or restoration of the natural environment.

**INTL BUS 4289 International Strategic Management: 3 semester hours**

Prerequisites: A minimum 2.0 campus GPA and INTL BUS 3282, MKTG 3780 and FINANCE 3580 or consent of instructor. A study of the international dimensions of strategic management. Provides an introduction to the key concepts and tools necessary for international competitive analysis. Topics include the international dimensions of strategy formulation and implementation, diversification, strategic alliances, and divestment.

**INTL BUS 4381 International Logistics And Operations Management: 3 semester hours**

Same as LOG OM 4381. Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of business logistics and supply chain strategies involving shipments across national boundaries. Topics include the effects of international agreements and regional trading blocks on supply chain strategies; the design of global logistics networks; managerial processes and systems for international production and distribution, and risk management for international logistics.

**INTL BUS 5289 International Business Strategies: 3 semester hours**

Prerequisites: BUS AD 5000 and ACCTNG 5400. This course focuses on those managerial issues which follow from the definition and implementation of corporate strategy for worldwide operations, as distinguished from purely domestic firms or those only marginally involved in international activities. It aims to develop an appreciation for the unique competitive, sociocultural and political environments in which international business takes place and the skills required to deal with these changes.

**INTL BUS 5290 Internship In International Business: 3 semester hours**

Prerequisites: Consent of IMBA Director. Students will apply both their language skills and knowledge of international business by working in an organization located outside the student's country of origin. This course requires students to submit regular evaluations and prepare a research report summarizing their global experience and how it relates to the international business program.

**INTL BUS 5381 International Logistics And Operations Management: 3 semester hours**

Same As LOG OM 5381. Prerequisites: LOG OM 5320 A study of international logistics and operations management strategy, planning and operations. Topics may include multinational logistics and supply chain strategies, global network design and sourcing, international transportation, distribution and operations, import-export, risk management, etc.

**INTL BUS 5480 International Accounting: 3 semester hours**

Same as: ACCTNG 5480. Prerequisites: ACCTNG 3402. Accounting practices for multinational businesses. Discussion of comparative financial accounting practices, the development of international accounting standards, and managerial accounting practices related to multinational operations.

**INTL BUS 5780 Seminar In International Marketing: 3 semester hours**

Same as MKTG 5780. Prerequisite: MKTG 5700. An advanced seminar on topics in international or global marketing. Possible topics include the globalization of trade, export marketing, international market opportunity analysis, and negotiation for international marketers. Students who take one version of this course (e.g., globalization of trade) can take a second version of the course (e.g., negotiation for international marketers) with prior permission.

**INTL BUS 6580 International Financial Management: 3 semester hours**

Same as FINANCE 6580. Prerequisite: FINANCE 6500. The objective of this course is to introduce students to financial issues for multinational firms. Besides covering basic tools and techniques, the class stresses the role of the financial manager in analysis and decision-making. Topics include the impact of international accounting and tax issues, capital budgeting in a foreign environment, transfer pricing, and global funding. Conceptual skills for lifelong learning experiences are emphasized. This course employs a lecture and case format with group discussions.



**INTL BUS 6581 Seminar In International Investments: 3 semester hours**

Same as FINANCE 6581. Prerequisite: FINANCE 6500. This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the comprehensive project report. A prior investments course is recommended but not required.

**INTL BUS 6846 Management Of Global Sourcing: 3 semester hours**

Same as INFSYS 6846. Prerequisite: INFSYS 5800. Largely fostered by the spread of the Internet, global software development standards, global software packages, and fewer trade restrictions, organizations now regularly source software development, software maintenance, systems upgrades, platform transitions, help desks, and other IS-related work globally. This course covers topics to help organizations manage global sourcing of IS work, including sourcing strategies, sourcing models (captive, joint venture, outsourcing), role of program management offices, supplier selection, engagement models, and special practices required to manage globally dispersed teams. Risk mitigation practices associated with cultural, legal, political, infrastructure, logistical, and human resource issues are also addressed.

**INTL BUS 6881 Management Of Transnational Information Systems: 3 semester hours**

Same as INFSYS 6881. Prerequisites: INFSYS 5800, INFSYS 6825 (may be taken concurrently). The course presents concepts of managing global information technology. Issues covered include: global information technology, systems development, electronic data interchange, cross-border data flows, and national and international information structures. Further topics may include information technology enabled economic development, global outsourcing of information systems services, and social, organizational and ethical implications.

**INTL BUS 7000 intl bus test: 1 semester hour**

## Italian

### Courses

**ITALIAN 1001 Italian I: 5 semester hours**

Fundamentals of Italian grammar, pronunciation and diction for students with no previous acquaintance with the language. One hour laboratory per week required.

**ITALIAN 1002 Italian II: 5 semester hours**

Prerequisite: ITALIAN 1001 or equivalent. Continuation of grammar and conversation with introductory readings centering on Italian contributions to art, literature and music. One hour laboratory per week required.

**ITALIAN 1035 English Grammar For Students Of Foreign Languages: 1 semester hour**

This course is designed to familiarize the student with basic English grammar and the terms commonly used in the teaching of most languages. This course does not count toward a major or minor in English or any foreign language.

**ITALIAN 2101 Intermediate Italian Language And Culture: 3 semester hours**

Prerequisites: ITALIAN 1002 or equivalent. Students will advance their understanding of Italian culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**ITALIAN 2190 Special Readings: 1-3 semester hours**

Prerequisite: ITALIAN 2101 or equivalent. Readings on literary topics mutually acceptable to student and instructor.

### Courses

**ITALIAN 1001 Italian I: 5 semester hours**

Fundamentals of Italian grammar, pronunciation and diction for students with no previous acquaintance with the language. One hour laboratory per week required.

**ITALIAN 1002 Italian II: 5 semester hours**

Prerequisite: ITALIAN 1001 or equivalent. Continuation of grammar and conversation with introductory readings centering on Italian contributions to art, literature and music. One hour laboratory per week required.

**ITALIAN 1035 English Grammar For Students Of Foreign Languages: 1 semester hour**

This course is designed to familiarize the student with basic English grammar and the terms commonly used in the teaching of most languages. This course does not count toward a major or minor in English or any foreign language.

**ITALIAN 2101 Intermediate Italian Language And Culture: 3 semester hours**

Prerequisites: ITALIAN 1002 or equivalent. Students will advance their understanding of Italian culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**ITALIAN 2190 Special Readings: 1-3 semester hours**

Prerequisite: ITALIAN 2101 or equivalent. Readings on literary topics mutually acceptable to student and instructor.

## Japanese

### Courses

**JAPAN 1001 Japanese I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, and writing of Japanese and upon the acquisition of the fundamentals of grammar and syntax.

**JAPAN 1002 Japanese II: 5 semester hours**

Prerequisites: JAPAN 1001 or equivalent. Emphasis is placed upon the understanding, speaking, reading, and writing of Japanese. Continuation of the acquisition of the fundamentals of grammar and syntax.

**JAPAN 1003 Japanese III: 3 semester hours**

Prerequisite: JAPAN 1002 or equivalent. Review and practice of fundamentals of grammar, syntax, reading and writing acquired in JAPAN 1002. This course is not a JAPAN 2101 equivalent and may not be counted towards a foreign language requirement.

**JAPAN 1005 Chinese Calligraphy and Writing in East Asia: 1 semester hour**

Same as CHINESE 1005. This course is an introduction to the art of Chinese calligraphy and the history and basic features of the writing systems in East Asia, (Chinese, Japanese, Korean, Mongolian, Tibetan, etc.). Emphasis is placed on the Chinese script and writing Chinese characters correctly with a calligraphy brush and ink. Students practice writing basic strokes and characters and creating their own calligraphic works.

**JAPAN 1011 Anime Nation: Popular Culture in Japan: 3 semester hours**

A look at postmodern samurai, preteen ninjas, praying at shrines and other elements of J-pop culture. This on-line course uses various clips and full-length animated features, to introduce and explore topics such as family life, school life, shared values, contemporary social issues, fashion, and metaphysics. Critical texts, essays, and narrated presentations provide background for analysis and appreciation.

**JAPAN 1199 Special Topics: Language Immersion: Japanese: 1 semester hour**

Prerequisite: JAPAN 1001 or concurrent enrollment in JAPAN 1001. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

**JAPAN 2101 Intermediate Japanese I: 5 semester hours**

Prerequisite: JAPAN 1002 or equivalent. Students will advance their understanding of Japanese culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**JAPAN 2102 Intermediate Japanese II: 5 semester hours**

Prerequisites: JAPAN 2101 or equivalent. Continuation of JAPAN 2101.

**JAPAN 2111 The World of Anime - Advanced Topics in Japanese Animation: 3 semester hours**

Prerequisites: JAPAN 1011 or permission of instructor. Students will explore and analyze anime and manga from sociological, literary, and anthropological perspectives, attempting to foster deeper understanding of contemporary Japan and the historical context from which the selected works emerged.

**JAPAN 2150 Classical Japanese Literature In Translation: 3 semester hours**

An exploration of Classical Japanese literary masterpieces and the world from which they arose. All required readings will be in English translation. This course may be repeated for credit with different literary works as a topic.

**JAPAN 2190 Special Readings: 1-3 semester hours**

Prerequisites: JAPAN 2102 or consent of the department Independent study through readings, reports, and conferences.

**JAPAN 2191 Special Topics in Japanese Culture: 3 semester hours**

A topically organized introduction to Japanese culture and society. May be repeated for credit when the topic varies.

**JAPAN 2199 Special Topic s: Language Immersion: Japanese: 1 semester hour**

Prerequisite: JAPAN 2101 or concurrent enrollment in JAPAN 2101. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

**JAPAN 3201 Intermediate Japanese III: 3 semester hours**

Prerequisites: JAPAN 2102 or equivalent. Students will continue to advance their understanding of Japanese culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course satisfies the University cultural diversity requirement.

**JAPAN 3202 Intermediate Japanese IV: 3 semester hours**

Prerequisites: JAPAN 3201 or equivalent. Continuation of JAPAN 3201.

**JAPAN 3280 Readings in Japanese: 3 semester hours**

Prerequisites: JAPAN 3202 or equivalent. Development of language skills through reading and discussion of a variety of literary and non-literary texts in Japanese.

**JAPAN 3290 Special Readings: 1-3 semester hours**

Prerequisites: JAPAN 2190 or consent of instructor Independent study through readings, reports and conferences.

**JAPAN 4301 Advanced Japanese I: 3 semester hours**

Prerequisite: JAPAN 3202 or equivalent. Further development of skills in both spoken and written Japanese. Students will read/view and discuss selected newspaper articles, editorials, essays, short stories, television programs and films.

**JAPAN 4302 Advanced Japanese II: 3 semester hours**

Prerequisite: JAPAN 4301 or equivalent. Continuation of Japanese 4301. Further development of skills in both spoken and written Japanese. Students will read/view and discuss selected newspaper articles, editorials, essays, short stories, television programs and films.

**JAPAN 4390 Special Readings: 1-3 semester hours**

Prerequisites: JAPAN 3290 or consent of instructor. Independent study through readings, reports and conferences.

## Courses

**JAPAN 1001 Japanese I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, and writing of Japanese and upon the acquisition of the fundamentals of grammar and syntax.

**JAPAN 1002 Japanese II: 5 semester hours**

Prerequisites: JAPAN 1001 or equivalent. Emphasis is placed upon the understanding, speaking, reading, and writing of Japanese. Continuation of the acquisition of the fundamentals of grammar and syntax.

**JAPAN 1003 Japanese III: 3 semester hours**

Prerequisite: JAPAN 1002 or equivalent. Review and practice of fundamentals of grammar, syntax, reading and writing acquired in JAPAN 1002. This course is not a JAPAN 2101 equivalent and may not be counted towards a foreign language requirement.

**JAPAN 1005 Chinese Calligraphy and Writing in East Asia: 1 semester hour**

Same as CHINESE 1005. This course is an introduction to the art of Chinese calligraphy and the history and basic features of the writing systems in East Asia, (Chinese, Japanese, Korean, Mongolian, Tibetan, etc.). Emphasis is placed on the Chinese script and writing Chinese characters correctly with a calligraphy brush and ink. Students practice writing basic strokes and characters and creating their own calligraphic works.

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A look at postmodern samurai, preteen ninjas, praying at shrines and other elements of J-pop culture. This on-line course uses various clips and full-length animated features, to introduce and explore topics such as family life, school life, shared values, contemporary social issues, fashion, and metaphysics. Critical texts, essays, and narrated presentations provide background for analysis and appreciation.

**JAPAN 1199 Special Topics: Language Immersion: Japanese: 1 semester hour**

Prerequisite: JAPAN 1001 or concurrent enrollment in JAPAN 1001. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

**JAPAN 2101 Intermediate Japanese I: 5 semester hours**

Prerequisite: JAPAN 1002 or equivalent. Students will advance their understanding of Japanese culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**JAPAN 2102 Intermediate Japanese II: 5 semester hours**

Prerequisites: JAPAN 2101 or equivalent. Continuation of JAPAN 2101.

**JAPAN 2111 The World of Anime - Advanced Topics in Japanese Animation: 3 semester hours**

Prerequisites: JAPAN 1011 or permission of instructor. Students will explore and analyze anime and manga from sociological, literary, and anthropological perspectives, attempting to foster deeper understanding of contemporary Japan and the historical context from which the selected works emerged.

**JAPAN 2150 Classical Japanese Literature In Translation: 3 semester hours**

An exploration of Classical Japanese literary masterpieces and the world from which they arose. All required readings will be in English translation. This course may be repeated for credit with different literary works as a topic.

**JAPAN 2190 Special Readings: 1-3 semester hours**

Prerequisites: JAPAN 2102 or consent of the department Independent study through readings, reports, and conferences.

**JAPAN 2191 Special Topics in Japanese Culture: 3 semester hours**

A topically organized introduction to Japanese culture and society. May be repeated for credit when the topic varies.

**JAPAN 2199 Special Topic s: Language Immersion: Japanese: 1 semester hour**

Prerequisite: JAPAN 2101 or concurrent enrollment in JAPAN 2101. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary.

**JAPAN 3201 Intermediate Japanese III: 3 semester hours**

Prerequisites: JAPAN 2102 or equivalent. Students will continue to advance their understanding of Japanese culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course satisfies the University cultural diversity requirement.

**JAPAN 3202 Intermediate Japanese IV: 3 semester hours**

Prerequisites: JAPAN 3201 or equivalent. Continuation of JAPAN 3201.

**JAPAN 3280 Readings in Japanese: 3 semester hours**

Prerequisites: JAPAN 3202 or equivalent. Development of language skills through reading and discussion of a variety of literary and non-literary texts in Japanese.

**JAPAN 3290 Special Readings: 1-3 semester hours**

Prerequisites: JAPAN 2190 or consent of instructor Independent study through readings, reports and conferences.

**JAPAN 4301 Advanced Japanese I: 3 semester hours**

Prerequisite: JAPAN 3202 or equivalent. Further development of skills in both spoken and written Japanese. Students will read/view and discuss selected newspaper articles, editorials, essays, short stories, television programs and films.

**JAPAN 4302 Advanced Japanese II: 3 semester hours**

Prerequisite: JAPAN 4301 or equivalent. Continuation of Japanese 4301. Further development of skills in both spoken and written Japanese. Students will read/view and discuss selected newspaper articles, editorials, essays, short stories, television programs and films.

**JAPAN 4390 Special Readings: 1-3 semester hours**

Prerequisites: JAPAN 3290 or consent of instructor. Independent study through readings, reports and conferences.

## Joint Civil Engineering

### Courses

**J C ENGR 2160 Surveying: 3 semester hours**

Horizontal and vertical control surveys, including traverses, triangulation, trilateration, and leveling; basic adjustments of observations; geologic data; coordinate systems. Basic route surveying, including horizontal and vertical curves.

**J C ENGR 3360 Civil Engineering Materials Lab: 1 semester hour**

Testing procedures, testing machines, use of laboratory equipment, analysis of data, and presentation of results. Laboratory tests on static tension, compression, bending, and torsion of metal specimens. Tests on wood. Determination of compressive and tensile strengths of concrete. Design of concrete mixes and verification of strength. Experiments in advanced topics in mechanics of materials.

**J C ENGR 3410 Structural Analysis: 3 semester hours**

Prerequisite: J M ENGR 2410. A review of the calculation of reactions, shear, and bending moment. Definition, construction and use of influence lines. Deflections for statically determinate structures using the work method. Analysis of statically indeterminate trusses using the method of consistent deformations. Analysis of continuous beams and planar frames using the consistent deformation, slope-deflection and moment distribution methods. The influence of span on strength, stability, and economy of structures. An introduction to structural analysis software.

**J C ENGR 3420 Structural Design: 3 semester hours**

Prerequisites: J M ENGR 3250, J C ENGR 3410. Fundamentals of structural design in steel, reinforced concrete, and timber. Familiarization with the sources of various design codes and practice in interpreting them. Computer graphics applications.

**J C ENGR 3460 Transportation Engineering: 3 semester hours**

Fundamental treatment of the planning, engineering, design, and procedural aspects of multimodal transportation are covered. Intermodal freight and urban transportation planning processes and overview of environmental, energy, and economic issues are discussed.

**J C ENGR 3760 Hydraulic Engineering: 3 semester hours**

Prerequisites: J M ENGR 3700. The principles of open channel flow will be discussed and illustrated with practical examples. Methods for channel design, storm sewer, culvert and brige analysis will be presented using the concepts of gradually-varied, steady flow. A design project using computerized analysis and design is used to implement concepts in a large practical application.

**J C ENGR 4000 Independent Study: 1-6 semester hours**

Prerequisites: Junior standing and consent of faculty advisor Independent investigation of a civil engineering topic of special interest to a student performed under the direction of a faculty member.

**J C ENGR 4190 Soil Mechanics: 3 semester hours**

Prerequisite: J M ENGR 2410, J M ENGR 3700 Basic geology as it relates to index and classification properties of soil. Exploration, sampling, and testing techniques. Soil classification systems. clay minerals and soil structures. Compaction and stabilization. Capillary, shrinkage, swelling, and frost action in soils. Effective stress, permeability, seepage, and flow nets. Consolidation and consolidation settlements. stresses in soil. Time rate of consolidation. Mohr's circle, stress path, and failure theories. Shearing strength of sand and clays.

**J C ENGR 4200 Soil Exploration And Testing: 1 semester hour**

Prerequisite: J C ENGR 4190 (may be taken concurrently). Soil exploration; in-situ soil testing, laboratory testing of soil; processing of test data using a microcomputer; statistical analysis of test data; use of test results in the decision-making process.

**J C ENGR 4600 Highway and Traffic Engineering: 3 semester hours**

Prerequisites: J C ENGR 2160 and Senior Standing Study of basic highway design and traffic circulation principles. Study of design elements of alignment, profile, crosssection, intersection types, interchange types, and controlledaccess highways. Investigation of functional highway classification. Traffic volume, delay and accident studies. Analysis of highway capacity of uninterrupted flow, interrupted flow. Freeway, ramp and weaving sections.

**J C ENGR 4620 Transportation Planning: 3 semester hours**

Prerequisites: Senior standing. Course will cover the following fundamentals of multimodal transportation planning, urban study components, including design and organization, origindestination analysis, traditional traffic model processes of trip generation, distribution and assignment, urban transportation entity analysis (shopping centers, terminals, etc.) state and regional study components, including state and national needs and capital improvement programs, regional funding capabilities and related national transportation policy and legislative acts.

**J C ENGR 4621 Traffic Operations and Analysis: 3 semester hours**

Prerequisites: Senior Standing. Study of traffic system operations and analysis, microsimulation modeling, interchange types, and the fundamentals of highway signing and marking. Introduction into transportation analysis project management. Analysis and design techniques focus on microsimulation modeling and the Manual of Uniform Traffic Control Devices. Material learned is integrated into a major design project.

**J C ENGR 4630 Design Of Steel Structures: 3 semester hours**

Prerequisites: J C ENGR 3410, J C ENGR 3420. Behavior and design of steel frames by "allowable stress" and "maximum strength" based on deterministic and LRFD (Load-resistance factor design) methods. Design of beams, columns, beamcolumns, plate girders, connections, multistory frames, and bridge girders, Torsional design of steel structures. Plastic analysis and design of steel structures. Miscellaneous topics in structural steel construction and design.

**J C ENGR 4640 Foundation Engineering: 3 semester hours**

Prerequisites: J C ENGR 3420, J C ENGR 4190, J C ENGR 4200 Principal problems in design and construction of foundations for bridges and buildings. Bearing capacity of deep and shallow foundations; pressure on retaining walls and shallow foundations; pressure on retaining walls and slope stability; modern developments in piling, cofferdams, open caissons, pneumatic caissons.

**J C ENGR 4660 Advanced Design Of Concrete Structures: 3 semester hours**

Prerequisites: J M ENGR 3250, J C ENGR 3410, J C ENGR 3420. Flexural behavior and design, strength and deformation of rectangular and nonrectangular sections, shear strength, beamcolumns, long columns, slab systems, design of frames, and footings will be covered.

**J C ENGR 4670 Structure Design Projects: 3 semester hours**

Prerequisite: Permission of instructor. Students carry out the complete design of typical and unusual building and bridge structures. Use of the computer as a design tool is emphasized. Projects are conducted in cooperation with production engineers.

**J C ENGR 4720 Legal Aspects Of Construction: 3 semester hours**

Prerequisite: Junior standing or permission of instructor. A survey of the legal problems of the construction manager. Including but limited to, liability in the areas of contracts, agency, torts, insurance, bad judgement and oversight.

**J C ENGR 4730 Construction Operations And Management: 3 semester hours**

Prerequisite: Junior standing. The construction industry, its development, components, and organization. Contracting methods. Applications and limitations. Selection of equipment using production analysis and economics. Field engineering, including form design, shoring, embankment design. Purchasing and change orders. Safety and claims.

**J C ENGR 4740 Economic Decisions In Engineering: 3 semester hours**

Prerequisite: Junior standing. Principles of economics involved in engineering decisions. Decisions between alternatives based on the efficient allocation of resources. Topics include the time element in economics, analytical techniques for economy studies, and taxes.

**J C ENGR 4830 Fundamentals of Surface Water Hydrology and Environmental Engineering: 3 semester hours**

Prerequisites: Fluid Mechanics and senior status Bulletin description: The principles of the hydrologic cycle including precipitation, evaporation, transpiration, infiltration, runoff, streamflow, and groundwater will be discussed and illustrated. In addition, computational fundamentals of hydrologic analysis will be presented such as unit hydrographs, routing, data analysis, and flood frequency. Elements of quantitative problems in urban stormwater systems and management, water quality and urbanization. Concepts of sustainability and green engineering such as low impact development and other best management practices will be presented. Computer software will be utilized.



**J C ENGR 4910 Water Hydrology and Hydraulic Design Project: 3 semester hours**

Prerequisites: J M ENGR 3700 Fluid Mechanics, J C ENGR 3760 Hydraulic Engineering, and J C ENGR 4830 Fundamentals of Surface Water Hydrology and Environmental Engineering. This course is designed to provide seniors in Hydrology and Hydraulics with a major design/facility plan project. The principals of hydrologic and hydraulic design will be utilized in developing the hydrology, hydraulics and floodplain analysis for a local watershed or land area. Hydrologic analysis is performed to size hydraulic systems and evaluate watershed and floodplain performance. The course is structured to apply hydrologic theory and modeling techniques to engineering hydrology and hydraulics for watershed analysis, floodplain delineation, and urban stormwater. The student will also consider the next generation of hydrologic computation, watershed evaluation and the importance of severe storm impacts and flood management. Consideration of sustainability and green infrastructure practices will also be included. A final written report and class presentation of the design project is included.

**J C ENGR 4950 Fundamentals Of Engineering Review: 1 semester hour**

Prerequisite: Senior Standing The topics found in most engineer-in-training exams will be reviewed and illustrated using examples. A discussion of the importance of licensin exams and the strategies for taking these exams will be discussed. The main topics for the review include: engineering mathematics, basic chemistry, engineering mechanics, engineering economics, thermodynamics, electrical circuits, and material science.

**J C ENGR 4990 Senior Civil Engineering Seminar: 1 semester hour**

Prerequisite: Senior standing. Students will research assigned topics of importance to graduates entering the Civil Engineering profession and prepare oral presentations and a written report. Student presentations will be augmented by lectures from practicing professionals. Topics include professional registration, early career development, graduate study, effective presentations, construction quality, and case histories of civil engineering projects.

**Courses****J C ENGR 2160 Surveying: 3 semester hours**

Horizontal and vertical control surveys, including traverses, triangulation, trilateration, and leveling; basic adjustments of observations; geologic data; coordinate systems. Basic route surveying, including horizontal and vertical curves.

**J C ENGR 3360 Civil Engineering Materials Lab: 1 semester hour**

Testing procedures, testing machines, use of laboratory equipment, analysis of data, and presentation of results. Laboratory tests on static tension, compression, bending, and torsion of metal specimens. Tests on wood. Determination of compressive and tensile strengths of concrete. Design of concrete mixes and verification of strength. Experiments in advanced topics in mechanics of materials.

**J C ENGR 3410 Structural Analysis: 3 semester hours**

Prerequisite: J M ENGR 2410. A review of the calculation of reactions, shear, and bending moment. Definition, construction and use of influence lines. Deflections for statically determinate structures using the work method. Analysis of statically indeterminate trusses using the method of consistent deformations. Analysis of continuous beams and planar frames using the consistent deformation, slope-deflection and moment distribution methods. The influence of span on strength, stability, and economy of structures. An introduction to structural analysis software.

**J C ENGR 3420 Structural Design: 3 semester hours**

Prerequisites: J M ENGR 3250, J C ENGR 3410. Fundamentals of structural design in steel, reinforced concrete, and timber. Familiarization with the sources of various design codes and practice in interpreting them. Computer graphics applications.

**J C ENGR 3460 Transportation Engineering: 3 semester hours**

Fundamental treatment of the planning, engineering, design, and procedural aspects of multimodal transportation are covered. Intermodal freight and urban transportation planning processes and overview of environmental, energy, and economic issues are discussed.

**J C ENGR 3760 Hydraulic Engineering: 3 semester hours**

Prerequisites: J M ENGR 3700. The principles of open channel flow will be discussed and illustrated with practical examples. Methods for channel design, storm sewer, culvert and brige analysis will be presented using the concepts of gradually-varied, steady flow. A design project using computerized analysis and design is used to implement concepts in a large practical application.

**J C ENGR 4000 Independent Study: 1-6 semester hours**

Prerequisites: Junior standing and consent of faculty advisor Independent investigation of a civil engineering topic of special interest to a student performed under the direction of a faculty member.

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Prerequisite: J M ENGR 2410, J M ENGR 3700 Basic geology as it relates to index and classification properties of soil. Exploration, sampling, and testing techniques. Soil classification systems. clay minerals and soil structures. Compaction and stabilization. Capillary, shrinkage, swelling, and frost action in soils. Effective stress, permeability, seepage, and flow nets. Consolidation and consolidation settlements. stresses in soil. Time rate of consolidation. Mohr's circle, stress path, and failure theories. Shearing strength of sand and clays.

**J C ENGR 4200 Soil Exploration And Testing: 1 semester hour**

Prerequisite: J C ENGR 4190 (may be taken concurrently). Soil exploration; in-situ soil testing, laboratory testing of soil; processing of test data using a microcomputer; statistical analysis of test data; use of test results in the decision-making process.

**J C ENGR 4600 Highway and Traffic Engineering: 3 semester hours**

Prerequisites: J C ENGR 2160 and Senior Standing Study of basic highway design and traffic circulation principles. Study of design elements of alignment, profile, crosssection, intersection types, interchange types, and controlledaccess highways. Investigation of functional highway classification. Traffic volume, delay and accident studies. Analysis of highway capacity of uninterrupted flow, interrupted flow. Freeway, ramp and weaving sections.

**J C ENGR 4620 Transportation Planning: 3 semester hours**

Prerequisites: Senior standing. Course will cover the following fundamentals of multimodal transportation planning, urban study components, including design and organization, origindestination analysis, traditional traffic model processes of trip generation, distribution and assignment, urban transportation entity analysis (shopping centers, terminals, etc.) state and regional study components, including state and national needs and capital improvement programs, regional funding capabilities and related national transportation policy and legislative acts.

**J C ENGR 4621 Traffic Operations and Analysis: 3 semester hours**

Prerequisites: Senior Standing. Study of traffic system operations and analysis, microsimulation modeling, interchange types, and the fundamentals of highway signing and marking. Introduction into transportation analysis project management. Analysis and design techniques focus on microsimulation modeling and the Manual of Uniform Traffic Control Devices. Material learned is integrated into a major design project.

**J C ENGR 4630 Design Of Steel Structures: 3 semester hours**

Prerequisites: J C ENGR 3410, J C ENGR 3420. Behavior and design of steel frames by "allowable stress" and "maximum strength" based on deterministic and LRFD (Load-resistance factor design) methods. Design of beams, columns, beamcolumns, plate girders, connections, multistory frames, and bridge girders, Torsional design of steel structures. Plastic analysis and design of steel structures. Miscellaneous topics in structural steel construction and design.

**J C ENGR 4640 Foundation Engineering: 3 semester hours**

Prerequisites: J C ENGR 3420, J C ENGR 4190, J C ENGR 4200  
Principal problems in design and construction of foundations for bridges and buildings. Bearing capacity of deep and shallow foundations; pressure on retaining walls and shallow foundations; pressure on retaining walls and slope stability; modern developments in piling, cofferdams, open caissons, pneumatic caissons.

**J C ENGR 4660 Advanced Design Of Concrete Structures: 3 semester hours**

Prerequisites: J M ENGR 3250, J C ENGR 3410, J C ENGR 3420.  
Flexural behavior and design, strength and deformation of rectangular and nonrectangular sections, shear strength, beamcolumns, long columns, slab systems, design of frames, and footings will be covered.

**J C ENGR 4670 Structure Design Projects: 3 semester hours**

Prerequisite: Permission of instructor. Students carry out the complete design of typical and unusual building and bridge structures. Use of the computer as a design tool is emphasized. Projects are conducted in cooperation with production engineers.

**J C ENGR 4720 Legal Aspects Of Construction: 3 semester hours**

Prerequisite: Junior standing or permission of instructor. A survey of the legal problems of the construction manager. Including but limited to, liability in the areas of contracts, agency, torts, insurance, bad judgement and oversight.

**J C ENGR 4730 Construction Operations And Management: 3 semester hours**

Prerequisite: Junior standing. The construction industry, its development, components, and organization. Contracting methods. Applications and limitations. Selection of equipment using production analysis and economics. Field engineering, including form design, shoring, embankment design. Purchasing and change orders. Safety and claims.

**J C ENGR 4740 Economic Decisions In Engineering: 3 semester hours**

Prerequisite: Junior standing. Principles of economics involved in engineering decisions. Decisions between alternatives based on the efficient allocation of resources. Topics include the time element in economics, analytical techniques for economy studies, and taxes.

**J C ENGR 4830 Fundamentals of Surface Water Hydrology and Environmental Engineering: 3 semester hours**

Prerequisites: Fluid Mechanics and senior status  
Bulletin description: The principles of the hydrologic cycle including precipitation, evaporation, transpiration, infiltration, runoff, streamflow, and groundwater will be discussed and illustrated. In addition, computational fundamentals of hydrologic analysis will be presented such as unit hydrographs, routing, data analysis, and flood frequency. Elements of quantitative problems in urban stormwater systems and management, water quality and urbanization. Concepts of sustainability and green engineering such as low impact development and other best management practices will be presented. Computer software will be utilized.

**J C ENGR 4910 Water Hydrology and Hydraulic Design Project: 3 semester hours**

Prerequisites: J M ENGR 3700 Fluid Mechanics, J C ENGR 3760 Hydraulic Engineering, and J C ENGR 4830 Fundamentals of Surface Water Hydrology and Environmental Engineering. This course is designed to provide seniors in Hydrology and Hydraulics with a major design/facility plan project. The principals of hydrologic and hydraulic design will be utilized in developing the hydrology, hydraulics and floodplain analysis for a local watershed or land area. Hydrologic analysis is performed to size hydraulic systems and evaluate watershed and floodplain performance. The course is structured to apply hydrologic theory and modeling techniques to engineering hydrology and hydraulics for watershed analysis, floodplain delineation, and urban stormwater. The student will also consider the next generation of hydrologic computation, watershed evaluation and the importance of severe storm impacts and flood management. Consideration of sustainability and green infrastructure practices will also be included. A final written report and class presentation of the design project is included.

**J C ENGR 4950 Fundamentals Of Engineering Review: 1 semester hour**

Prerequisite: Senior Standing The topics found in most engineer-in-training exams will be reviewed and illustrated using examples. A discussion of the importance of licensin exams and the strategies for taking these exams will be discussed. The main topics for the review include: engineering mathematics, basic chemistry, engineering mechanics, engineering economics, thermodynamics, electrical circuits, and material science.

**J C ENGR 4990 Senior Civil Engineering Seminar: 1 semester hour**

Prerequisite: Senior standing. Students will research assigned topics of importance to graduates entering the Civil Engineering profession and prepare oral presentations and a written report. Student presentations will be augmented by lectures from practicing professionals. Topics include professional registration, early career development, graduate study, effective presentations, construction quality, and case histories of civil engineering projects.

## Joint Computer Science

### Courses

**J CMP SC 1002 Introduction To Computing Tools: Matlab Skills: 1 semester hour**

This course is aimed at the acquisition of MATLAB skills through hands-on familiarization and practice. Students practice the array, vector, and meshgrid representations, programming and plotting, and apply these skills to solve numerical problems and generate reports. (J CMP SC 1002 and CMP SCI 1250 can substitute for J CMP SC 1360).

## Courses

### ***J CMP SC 1002 Introduction To Computing Tools: Matlab Skills: 1 semester hour***

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## Joint Engineering Communication

### Courses

#### ***J E COMM 3100 Engineering Communications: 3 semester hours***

Prerequisites: ENGL 1100 or equivalent and junior standing. Persistent concerns of grammar and style. Analysis and discussion of clear sentence and paragraph structure and of organization in complete technical documents. Guidelines for effective layout and graphics. Examples and exercises stressing audience analysis, graphic aids, editing, and readability. Videotaped work in oral presentation of technical projects. Writing assignments include descriptions of mechanisms, process instructions, basic proposals, letters and memos, and a long formal report. Fulfills the University requirement for a junior-level course in communicative skills.

### Courses

#### ***J E COMM 3100 Engineering Communications: 3 semester hours***

Prerequisites: ENGL 1100 or equivalent and junior standing. Persistent concerns of grammar and style. Analysis and discussion of clear sentence and paragraph structure and of organization in complete technical documents. Guidelines for effective layout and graphics. Examples and exercises stressing audience analysis, graphic aids, editing, and readability. Videotaped work in oral presentation of technical projects. Writing assignments include descriptions of mechanisms, process instructions, basic proposals, letters and memos, and a long formal report. Fulfills the University requirement for a junior-level course in communicative skills.

## Joint Electrical Engineering

### Courses

#### ***J E ENGR 2300 Introduction To Electrical Networks: 3 semester hours***

Elements, sources, and interconnects. Ohm's and Kirchoff's laws, superposition and Thevenin's theorem; the resistive circuit, transient analysis, sinusoidal analysis, and frequency response.

#### ***J E ENGR 2320 Introduction To Electronic Circuits: 3 semester hours***

Prerequisites: J E ENGR 2300 Introduction to contemporary electronic devices and their circuit applications. Terminal characteristics of active semiconductor devices. Incremental and D-C models of junction diodes, bipolar transistor (BJTs), and metal-oxide semiconductor field effect transistors (MOSFETs) are developed and used to design single- and multi-stage amplifiers. Models of the BJT and MOSFET in cutoff and saturation regions are used to design digital circuits.

#### ***J E ENGR 2330 Electrical And Electronic Circuits Laboratory: 3 semester hours***

Prerequisites: J E ENGR 2300 Lectures and laboratory exercises related to sophomore topics in introductory networks and basic electronics.

#### ***J E ENGR 2600 Introduction To Digital Logic And Computer Design: 3 semester hours***

Prerequisite: J CMP SC 1260. Digital computers and digital information-processing system; Boolean algebra, principles and methodology of logical design; machine language programming; register transfer logic; microprocessor hardware, software, and interfacing; fundamental of digital circuits and systems; computer organization and control; memory systems; arithmetic unit design. Occasional laboratory exercises.

#### ***J E ENGR 3300 Engineering Electro Magnetic Principles: 3 semester hours***

Electromagnetic theory as applied to electrical engineering; vector calculus; electrostatics and magnetostatics; Maxwell's equations, including Poynting's theorem and boundary conditions; uniform plane-wave propagation; transmission lines-TEM modes, including treatment of general, lossless line, and pulse propagation; introduction to guided waves; introduction to radiation and scattering concepts.

#### ***J E ENGR 3310 Electronics Laboratory: 3 semester hours***

Prerequisites: J E ENGR 2300, J E ENGR 2330. Laboratory exercises for juniors covering topics in computeraided measurements, computer simulation, and electronic circuits.

#### ***J E ENGR 3320 Power, Energy And Polyphase Circuits: 3 semester hours***

Prerequisite: J E ENGR 2300. Fundamental concepts of power and energy; electrical measurements; physical and electrical arrangement of electrical power systems; polyphase circuit theory and calculations; principle elements of electrical systems such as transformers, rotating machines, control, and protective devices, their description and characteristics; elements of industrial power system design.

#### ***J E ENGR 3360 Principles Of Electronic Devices: 3 semester hours***

Introduction to the solid-state physics of electronic materials and devices, including semiconductors, metals, insulators, diodes and transistors, Crystals growth technology and fundamental properties of crystals. Electronic properties and band structure of electronic materials, and electron transport in semiconductor materials. Fabrication of pn junction diodes, metal-semiconductor junctions, and transistors and integrated circuit chips. Fundamental electrical properties of rectifying diodes and light-emitting diodes, bipolar transistors and field effect transistors. Device physics of diodes and transistors, large-signal electrical behavior and high-frequency properties.

#### ***J E ENGR 3370 Electronic Devices And Circuits: 3 semester hours***

Prerequisites: J E ENGR 2320. Introduction to semiconductor electronic devices: transistors and diodes. Device electrical DC and high-frequency characteristics. Bipolar transistors, field-effect transistors for analog electronics applications. Transistors fabrication as discrete devices and as integrated-circuit chips. Large-signal analysis of transistor amplifiers: voltage gain, distortion, input resistance and output resistance. Analysis of multitransistor amplifiers: Darlington, Cascode, and coupled-pair configurations. Half-circuit concepts, differential-mode gain, common-mode gain, and differential-to-single-ended conversion. Transistor current sources, active loads, and power-amplifier stages. Applications to operational amplifiers and feedback circuits.



***J E ENGR 3510 Signals And Systems: 3 semester hours***

Prerequisites: J E ENGR 2300 and J E MATH 3170. Elementary concepts of continuous-time and discrete-time signals and systems. Linear time-invariant (LTI) systems, impulse response, convolution, Fourier series, Fourier transforms, and frequency-domain analysis of LTI systems. Laplace transforms, Z-transforms, and rational function descriptions of LTI systems. Principles of sampling and modulation. Students participate weekly in recitation sections to develop oral communications skills using class materials.

***J E ENGR 3610 Introduction To Systems Software: 3 semester hours***

Prerequisites: CMP SCI 1250. Introduction to the hardware and software foundations of computer processing systems. Examines the process whereby computer systems manage, interpret, and execute applications. Covers fundamental algorithms for numerical computation, memory organization and access, storage allocation, and the sequencing and control of peripheral devices. Weekly laboratories, exercises, and a final laboratory project.

***J E ENGR 3620 Computer Architecture: 3 semester hours***

Prerequisite: J E ENGR 2600. Study of interaction and design philosophy of hardware and software for digital computer systems: Machine organization, data structures, I/O considerations. Comparison of minicomputer architectures.

***J E ENGR 4000 Independent Study: 1-3 semester hours***

Prerequisites: Senior in Good Standing. Opportunities to acquire experience outside the classroom setting and to work closely with individual members of the faculty. A final report must be submitted to the department. Open as a senior elective only. Hours and credit to be arranged. Credit variable, maximum credit per semester 3 hours. Maximum program total credit 3 hours.

***J E ENGR 4050 Reliability And Quality Control: 3 semester hours***

Prerequisites: J E MATH 3260 or MATH 1320. An integrated analysis of reliability and quality control function in manufacturing. Statistical process control, analysis, reliability prediction, design, testing, failure analysis and prevention, maintainability, availability, and safety are discussed and related. Qualitative and quantitative aspects of statistical quality control and reliability are introduced in the context of manufacturing.

***J E ENGR 4340 Solid State Power Circuits And Applications: 3 semester hours***

Prerequisite: J E ENGR 2320, J E ENGR 3510. Study of the strategies and applications of power control using solid-state semiconductor devices. Survey of generic power electronic converters. Applications to power supplies, motor drives, and consumer electronics. Introduction to power diodes, thyristors, and MOSFETs.

***J E ENGR 4350 Electrical Energy Laboratory: 3 semester hours***

Prerequisites: J E ENGR 2330. Experimental studies of principles important in modern electrical energy systems. Topics: power measurement, transformers, batteries, static frequency converters, thermoelectric cooling, solar cells, electrical lighting, induction, commutator, and brushless motors, synchronous machines.

***J E ENGR 4360 Energy Alternatives: 3 semester hours***

Prerequisites: J E ENGR 2300, or J M ENGR 3200. This course introduces engineering analyses of the human uses of energy. Both non-renewable (e.g., oil, natural gas, coal, nuclear) and sustainable (e.g., hydropower, solar, wind, biomass) resources are covered. Topics include the engineer's role in harvesting, production, storage, conversion, delivery, and uses of energy. Students will learn system analysis, design, integration, optimization, and operational aspects of selected resources delivery systems, and end uses. Technical content will include site selection, conversion and delivery efficiency calculations, engineering economic analyses, control systems, and energy resource systematic classification. Measure will consist of a mix of homework, quizzes, tests, class participation, and projects.

***J E ENGR 4410 Control Systems I: 3 semester hours***

Same as J M ENGR 4310. Prerequisites: J E MATH 3170, J E ENGR 2300. Introduction to automatic control concepts. Block diagram representation of single and multiloop systems. Multi-input and multi-output systems. Control system components. Transient and steady-state performance; stability analysis; Routh, Nyquist, Bode, and root locus diagrams. Compensation using lead, lag and lead-lag networks. Synthesis by Bode plots and root-locus diagrams. Introduction to state-variable techniques, state-transition matrix, state-variable feedback.

***J E ENGR 4520 Power Systems Analysis: 3 semester hours***

Prerequisite: J E ENGR 3320. Introduction to the modeling and elements of power systems; machines, lines, and loads; load flow methods and applications; short circuit analysis using symmetrical components on symmetrical and unsymmetrical faults; methods of economic operation of power systems and contingency; state estimators, stability, and introduction of the independent system operator.

***J E ENGR 4630 Digital Integrated Circuit Design And Architecture: 3 semester hours***

Prerequisites: J E ENGR 2320 and J E ENGR 3620. Brief review of device characteristics important to digital circuit operation, allowed by detailed evaluation of steady-state and transient behavior of logic circuits. Implications of and design techniques for very large-scale integrated circuits including architecture, timing, and interconnection. Students must complete detailed design and layout of a digital circuit. Major emphasis on MOS digital circuits with some comparisons to other technologies.

***J E ENGR 4710 Communications Theory And Systems: 3 semester hours***

Prerequisites: J E ENGR 3510 and J E MATH 3260. Introduction to the concepts of transmission of information via communication channels. Amplitude and angle modulation for the transmission of continuous-time signals. Analog-to-digital conversion and pulse code modulation. Transmission of digital data. Introduction to random signals and noise and their effects on communication. Optimum detection systems in the presence of noise. Elementary information theory. Overview of various communication technologies such as radio, television, telephone networks, data communication, satellites, optical fiber, and cellular radio.

***J E ENGR 4720 Internet Communications: 3 semester hours***

This course will introduce and cover the architecture, protocols, security, and quality of service (QoS) of Internet Communications. Starting with the design principles and architecture of the Internet, communication applications such as Voice over IP (VoIP), video conferencing, and presence and instant messaging will be covered. Protocols developed by the Internet Engineering Task Force (IETF) including IP, TCP, UDP, DNS, SIP, XMPP, and ENUM will be studied. Latest areas of research including the Service Oriented Architecture (SOA) and peer-to-peer (P2P) architectures for Internet Communications will be covered.



**J E ENGR 4820 Digital Signal Processing: 3 semester hours**

Prerequisite: J E ENGR 3510. Introduction to analysis and synthesis of discrete-time linear time-invariant (LTI) systems. Discrete-time convolution, discrete-time Fourier transform, Z-transform, rational function descriptions of discrete-time LTI systems. Sampling, analog-to-digital conversion and digital processing of analog signals. Techniques for the design of finite impulse response (FIR) and infinite impulse response (IIR) digital filters. Hardware implementation of digital filters and finite register effects. The discrete Fourier transform and the fast Fourier transform (FFT) algorithm.

**J E ENGR 4980 Electrical Engineering Design Projects: 3 semester hours**

Prerequisites: Senior standing. Working in teams, students address design tasks assigned by faculty. Each student participates in one or more design projects in a semester. Projects are chosen to emphasize the design process, with the designer choosing one of several paths to a possible result. Collaboration with industry and all divisions of the university is encouraged.

**Courses****J E ENGR 2300 Introduction To Electrical Networks: 3 semester hours**

Elements, sources, and interconnects. Ohm's and Kirchoff's laws, superposition and Thevenin's theorem; the resistive circuit, transient analysis, sinusoidal analysis, and frequency response.

**J E ENGR 2320 Introduction To Electronic Circuits: 3 semester hours**

Prerequisites: J E ENGR 2300 Introduction to contemporary electronic devices and their circuit applications. Terminal characteristics of active semiconductor devices. Incremental and D-C models of junction diodes, bipolar transistor (BJTs), and metal-oxide semiconductor field effect transistors (MOSFETs) are developed and used to design single- and multi-stage amplifiers. Models of the BJT and MOSFET in cutoff and saturation regions are used to design digital circuits.

**J E ENGR 2330 Electrical And Electronic Circuits Laboratory: 3 semester hours**

Prerequisites: J E ENGR 2300 Lectures and laboratory exercises related to sophomore topics in introductory networks and basic electronics.

**J E ENGR 2600 Introduction To Digital Logic And Computer Design: 3 semester hours**

Prerequisite: J CMP SC 1260. Digital computers and digital information-processing system; Boolean algebra, principles and methodology of logical design; machine language programming; register transfer logic; microprocessor hardware, software, and interfacing; fundamental of digital circuits and systems; computer organization and control; memory systems; arithmetic unit design. Occasional laboratory exercises.

**J E ENGR 3300 Engineering Electro Magnetic Principles: 3 semester hours**

Electromagnetic theory as applied to electrical engineering; vector calculus; electrostatics and magnetostatics; Maxwell's equations, including Poynting's theorem and boundary conditions; uniform plane-wave propagation; transmission lines-TEM modes, including treatment of general, lossless line, and pulse propagation; introduction to guided waves; introduction to radiation and scattering concepts.

**J E ENGR 3310 Electronics Laboratory: 3 semester hours**

Prerequisites: J E ENGR 2300, J E ENGR 2330. Laboratory exercises for juniors covering topics in computer-aided measurements, computer simulation, and electronic circuits.

**J E ENGR 3320 Power, Energy And Polyphase Circuits: 3 semester hours**

Prerequisite: J E ENGR 2300. Fundamental concepts of power and energy; electrical measurements; physical and electrical arrangement of electrical power systems; polyphase circuit theory and calculations; principle elements of electrical systems such as transformers, rotating machines, control, and protective devices, their description and characteristics; elements of industrial power system design.

**J E ENGR 3360 Principles Of Electronic Devices: 3 semester hours**

Introduction to the solid-state physics of electronic materials and devices, including semiconductors, metals, insulators, diodes and transistors, Crystals growth technology and fundamental properties of crystals. Electronic properties and band structure of electronic materials, and electron transport in semiconductor materials. Fabrication of pn junction diodes, metal-semiconductor junctions, and transistors and integrated-circuit chips. Fundamental electrical properties of rectifying diodes and light-emitting diodes, bipolar transistors and field effect transistors. Device physics of diodes and transistors, large-signal electrical behavior and high-frequency properties.

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Prerequisites: J E ENGR 2320. Introduction to semiconductor electronic devices: transistors and diodes. Device electrical DC and high-frequency characteristics. Bipolar transistors, field-effect transistors for analog electronics applications. Transistors fabrication as discrete devices and as integrated-circuit chips. Large-signal analysis of transistor amplifiers: voltage gain, distortion, input resistance and output resistance. Analysis of multitransistor amplifiers: Darlington, Cascode, and coupled-pair configurations. Half-circuit concepts, differential-mode gain, common-mode gain, and differential-to-single-ended conversion. Transistor current sources, active loads, and power-amplifier stages. Applications to operational amplifiers and feedback circuits.

**J E ENGR 3510 Signals And Systems: 3 semester hours**

Prerequisites: J E ENGR 2300 and J E MATH 3170. Elementary concepts of continuous-time and discrete-time signals and systems. Linear time-invariant (LTI) systems, impulse response, convolution, Fourier series, Fourier transforms, and frequency-domain analysis of LTI systems. Laplace transforms, Z-transforms, and rational function descriptions of LTI systems. Principles of sampling and modulation. Students participate weekly in recitation sections to develop oral communications skills using class materials.

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Prerequisites: CMP SCI 1250. Introduction to the hardware and software foundations of computer processing systems. Examines the process whereby computer systems manage, interpret, and execute applications. Covers fundamental algorithms for numerical computation, memory organization and access, storage allocation, and the sequencing and control of peripheral devices. Weekly laboratories, exercises, and a final laboratory project.

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Prerequisite: J E ENGR 2600. Study of interaction and design philosophy of hardware and software for digital computer systems: Machine organization, data structures, I/O considerations. Comparison of minicomputer architectures.

***J E ENGR 4000 Independent Study: 1-3 semester hours***

Prerequisites: Senior in Good Standing. Opportunities to acquire experience outside the classroom setting and to work closely with individual members of the faculty. A final report must be submitted to the department. Open as a senior elective only. Hours and credit to be arranged. Credit variable, maximum credit per semester 3 hours. Maximum program total credit 3 hours.

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Prerequisites: J E MATH 3260 or MATH 1320. An integrated analysis of reliability and quality control function in manufacturing. Statistical process control, analysis, reliability prediction, design, testing, failure analysis and prevention, maintainability, availability, and safety are discussed and related. Qualitative and quantitative aspects of statistical quality control and reliability are introduced in the context of manufacturing.

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Prerequisite: J E ENGR 2320, J E ENGR 3510. Study of the strategies and applications of power control using solid-state semiconductor devices. Survey of generic power electronic converters. Applications to power supplies, motor drives, and consumer electronics. Introduction to power diodes, thyristors, and MOSEFETs.

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Prerequisites: J E ENGR 2330. Experimental studies of principles important in modern electrical energy systems. Topics: power measurement, transformers, batteries, static frequency converters, thermoelectric cooling, solar cells, electrical lighting, induction, commutator, and brushless motors, synchronous machines.

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Prerequisites: J E ENGR 2300, or J M ENGR 3200. This course introduces engineering analyses of the human uses of energy. Both non-renewable (e.g., oil, natural gas, coal, nuclear) and sustainable (e.g., hydropower, solar, wind, biomass) resources are covered. Topics include the engineer's role in harvesting, production, storage, conversion, delivery, and uses of energy. Students will learn system analysis, design, integration, optimization, and operational aspects of selected resources delivery systems, and end uses. Technical content will include site selection, conversion and delivery efficiency calculations, engineering economic analyses, control systems, and energy resource systematic classification. Measure will consist of a mix of homework, quizzes, tests, class participation, and projects.

***J E ENGR 4410 Control Systems I: 3 semester hours***

Same as J M ENGR 4310. Prerequisites: J E MATH 3170, J E ENGR 2300. Introduction to automatic control concepts. Block diagram representation of single and multiloop systems. Multi-input and multi-output systems. Control system components. Transient and steady-state performance; stability analysis; Routh, Nyquist, Bode, and root locus diagrams. Compensation using lead, lag and lead-lag networks. Synthesis by Bode plots and root-locus diagrams. Introduction to state-variable techniques, state-transition matrix, state-variable feedback.

***J E ENGR 4520 Power Systems Analysis: 3 semester hours***

Prerequisite: J E ENGR 3320. Introduction to the modeling and elements of power systems; machines, lines, and loads; load flow methods and applications; short circuit analysis using symmetrical components on symmetrical and unsymmetrical faults; methods of economic operation of power systems and contingency; state estimators, stability, and introduction of the independent system operator.

***J E ENGR 4630 Digital Integrated Circuit Design And Architecture: 3 semester hours***

Prerequisites: J E ENGR 2320 and J E ENGR 3620. Brief review of device characteristics important to digital circuit operation, allowed by detailed evaluation of steady-state and transient behavior of logic circuits. Implications of and design techniques for very large-scale integrated circuits including architecture, timing, and interconnection. Students must complete detailed design and layout of a digital circuit. Major emphasis on MOS digital circuits with some comparisons to other technologies.

***J E ENGR 4710 Communications Theory And Systems: 3 semester hours***

Prerequisites: J E ENGR 3510 and J E MATH 3260. Introduction to the concepts of transmission of information via communication channels. Amplitude and angle modulation for the transmission of continuous-time signals. Analog-to-digital conversion and pulse code modulation. Transmission of digital data. Introduction to random signals and noise and their effects on communication. Optimum detection systems in the presence of noise. Elementary information theory. Overview of various communication technologies such as radio, television, telephone networks, data communication, satellites, optical fiber, and cellular radio.

***J E ENGR 4720 Internet Communications: 3 semester hours***

This course will introduce and cover the architecture, protocols, security, and quality of service (QoS) of Internet Communications. Starting with the design principles and architecture of the Internet, communication applications such as Voice over IP (VoIP), video conferencing, and presence and instant messaging will be covered. Protocols developed by the Internet Engineering Task Force (IETF) including IP, TCP, UDP, DNS, SIP, XMPP, and ENUM will be studied. Latest areas of research including the Service Oriented Architecture (SOA) and peer-to-peer (P2P) architectures for Internet Communications will be covered.

***J E ENGR 4820 Digital Signal Processing: 3 semester hours***

Prerequisite: J E ENGR 3510. Introduction to analysis and synthesis of discrete-time linear time-invariant (LTI) systems. Discretetime convolution, discrete-time Fourier transform, Z-transform, rational function descriptions of discrete-time LTI systems. Sampling, analog-to-digital conversion and digital processing of analog signals. Techniques for the design of finite impulse response (FIR) and infinite impulse response (IIR) digital filters. Hardware implementation of digital filters and finiteregister effects. The discrete Fourier transform and the fast Fourier transform (FFT) algorithm.

***J E ENGR 4980 Electrical Engineering Design Projects: 3 semester hours***

Prerequisites: Senior standing. Working in teams, students address design tasks assigned by faculty. Each student participates in one or more design projects in a semester. Projects are chosen to emphasize the design process, with the designer choosing one of several paths to a possible result. Collaboration with industry and all divisions of the university is encouraged.

## Joint Engineering Mathematics

### Courses

***J E MATH 3170 Engineering Mathematics: 4 semester hours***

Prerequisite: MATH 2020 or equivalent. The Laplace transform and applications; series solutions of differential equations, Bessel's equation, Legendre's equation, special functions; matrices, eigenvalues, and eigenfunctions; Vector analysis and applications; boundary value problems and spectral representation; Fourier series and Fourier integrals; solution of partial differential equations of mathematical physics.

**J E MATH 3260 Probability And Statistics For Engineering: 3 semester hours**

Prerequisites: MATH 2000. Study of probability and statistics together with engineering applications. Probability and statistics: random variables, distribution functions, density functions, expectations, means, variances, combinatorial probability, geometric probability, normal random variables, joint distribution, independence, correlation, conditional probability, Bayes theorem, the law of large numbers, the central limit theorem. Applications: reliability, quality control, acceptance sampling, linear regression, design and analysis of experiments, estimation, hypothesis testing. Examples are taken from engineering applications. This course is required for electrical and mechanical engineering majors.

**Courses****J E MATH 3170 Engineering Mathematics: 4 semester hours**

Prerequisite: MATH 2020 or equivalent. The Laplace transform and applications; series solutions of differential equations, Bessel's equation, Legendre's equation, special functions; matrices, eigenvalues, and eigenfunctions; Vector analysis and applications; boundary value problems and spectral representation; Fourier series and Fourier integrals; solution of partial differential equations of mathematical physics.

**J E MATH 3260 Probability And Statistics For Engineering: 3 semester hours**

Prerequisites: MATH 2000. Study of probability and statistics together with engineering applications. Probability and statistics: random variables, distribution functions, density functions, expectations, means, variances, combinatorial probability, geometric probability, normal random variables, joint distribution, independence, correlation, conditional probability, Bayes theorem, the law of large numbers, the central limit theorem. Applications: reliability, quality control, acceptance sampling, linear regression, design and analysis of experiments, estimation, hypothesis testing. Examples are taken from engineering applications. This course is required for electrical and mechanical engineering majors.

**Joint Mechanical Engineering****Courses****J M ENGR 1413 Introduction To Engineering Design: CAD: 2 semester hours**

An introduction to engineering design in the context of mechanical engineering. Students learn the fundamentals of spatial reasoning and graphical representation. Freehand sketching, including pictorial and orthographic views, are applied to the design process. Computer modeling techniques provide accuracy, analysis, and visualization tools necessary for the design of devices and machines. Topics in detailing design for production, including fasteners, dimensioning, tolerancing, and creation of part and assembly drawings are also included.

**J M ENGR 1414 Introduction To Engineering Design: Project: 2 semester hours**

An introduction to engineering design in the context of mechanical engineering. Students first complete a series of experiments that introduce physical phenomena related to mechanical engineering. Understanding is achieved by designing and building simple devices and machines. The course proceeds to a design contest in which the students design and build from a kit of parts a more significant machine that competes in a contest held at the end of the course. The course is open to all and is appropriate for anyone interested in mechanical devices, design, and the design process.

**J M ENGR 2410 Mechanics Of Deformable Bodies: 3 semester hours**

Prerequisites: MATH 1900 and ENGR 2310. Normal and shear stresses and strains. Stress-strain diagrams. Hooke's law and elastic energy. Thermal stresses. Stresses in beams, columns, torsional members, and pressure vessels. Elastic deflection of beams and shafts. Statically indeterminate structures. Mohr's circle of stress. Stability concepts.

**J M ENGR 3010 Computer Aided Design: 3 semester hours**

Prerequisite: J M ENGR 1413. Computer aided design, analysis and optimization of parts and assemblies; solid modeling of complex surfaces, creation of detail drawings, dimensioning and tolerancing; assembly modeling, assembly constraints, interference checking; motion constraints, force and acceleration analysis, thermal analysis; part optimization for weight, strength and thermal characteristics using Unigraphics software.

**J M ENGR 3200 Thermodynamics: 3 semester hours**

Prerequisites: MATH 1900, CHEM 1111 and PHYSICS 2111. Classical thermodynamics; thermodynamic properties; work and heat; first and second laws. Entropy, irreversibility, availability. Application to engineering systems.

**J M ENGR 3221 Mechanical Design And Machine Elements: 4 semester hours**

Prerequisites: J M ENGR 1414, J M ENGR 1415, J M ENGR 2410, J E MATH 3170. Provides a thorough overview of the steps in the engineering design process and introduces analytical/quantitative techniques applicable to each step. Topics include recognition of need, specification formulation, concept generation, concept selection, embodiment, and detail design. Includes an introduction to several classes of machine elements such as bearings, gears, belts, and springs. Underlying analytical model of the machine elements are presented along with guidelines about designing and choosing such elements for practical applications. A case study from industry will emphasize how the steps of the design process were done as well as the rationale for choosing particular machine elements.

**J M ENGR 3250 Material Science For J M ENGR: 4 semester hours**

Prerequisites: CHEM 1111. Introduces the chemistry and physics of engineering materials. Emphasis on atomic and molecular interpretation of physical and chemical properties, the relationships between physical and chemical properties, and performance of an engineering material.

**J M ENGR 3360 Material Science For J C ENGR: 3 semester hours**

Same as J M ENGR 3250, but without the lab. Prerequisite: CHEM 1111. Introduces the chemistry and physics of engineering materials. Emphasis on atomic and molecular interpretation of physical and chemical properties, the relationships between physical and chemical properties, and performance of an engineering material.

**J M ENGR 3700 Fluid Mechanics: 3 semester hours**

Prerequisites: J E MATH 3170 and ENGR 2320. Fundamental concepts of fluids as continua. Viscosity. Flow field: velocity, vorticity, streamlines. Fluid statics: hydrostatic forces manometers. Conservation of mass and momentum. Incompressible inviscid flow. Dimensional analysis and similitude. Flow in pipes and ducts. Flow measurement. Boundary-layer concepts. Flow in open channels.

**J M ENGR 3710 Principles Of Heat Transfer: 3 semester hours**

Prerequisites: J M ENGR 3200, J M ENGR 3700 and J E MATH 3170. Introductory treatment of the principles of heat transfer by conduction, convection, or radiation. Mathematical analysis of steady and unsteady conduction along with numerical methods. Analytical and semiempirical methods of forced and natural convection systems. Heat exchangers: LMTD and e-NTU analysis. Boiling and condensation heat transfer. Radiation between blackbody and real surfaces. Radiation network analysis.



**J M ENGR 3721 Fluid Mechanics Laboratory: 1 semester hour**

Prerequisites: J M ENGR 3700 Physical laboratory exercises focusing on fluid properties and flow phenomena covered in J M ENGR 3700. Calibration and use of a variety of equipment; acquisition, processing, and analysis of data by manual as well as automated methods.

**J M ENGR 3722 Heat Transfer Laboratory: 1 semester hour**

Prerequisites: J M ENGR 3721 and J M ENGR 3710. Physical laboratory exercises, including some numerical simulations and computational exercises, focusing on heat-transfer phenomena covered in J M ENGR 3710. Calibration and use of variety of laboratory instrumentation; acquisition, processing, and analysis of data by manual as well as automated methods; training in formal report writing.

**J M ENGR 3750 Fluid Control and Power Systems Theory And Practice: 3 semester hours**

Prerequisite: J M ENGR 3700. Topics to be covered include: design of hydraulic and pneumatic control and power systems using advanced concepts and analytical tools; analysis of fluid flow through small orifices and between parallel and inclined planes; theory of spool and flapper valves; physical configuration of practical components: pumps, motors, fluid lines and valves, accumulators and storage devices; integration of components into practical systems, development of realistic performance diagrams using MATLAB Symulink; application of performance diagrams in design and analysis of fluid power systems.

**J M ENGR 4000 Independent Study: 3 semester hours**

Prerequisites: Junior standing and consent of faculty advisor Independent investigation of a mechanical engineering topic of special interest to a student performed under the direction of a faculty member.

**J M ENGR 4041 Current Topics In Engineering Design: 1 semester hour**

Case studies of engineering failures, class discussion & short written papers are used to illustrate and stress the importance of engineering teamwork, ethics, and professional standards within the mechanical engineering discipline. Working in teams students develop and present a case study on a topic of their choice. Guest lecturers introduce contemporary topics such as product liability, environmental regulations, green design, appropriate technologies, and concurrent engineering.

**J M ENGR 4110 Mechanical Engineering Design Project: 4 semester hours**

Prerequisites: J M ENGR 3221. Feasibility study of an open-ended, original design or a creative redesign of a mechanical component or system requiring the application of engineering science principles. Feasibility is subject to economic, safety, legal, environmental, ethical, aesthetic, and other constraints in a competitive manufacturing environment. Project teams perform the detailed design and optimization of the concept developed in the feasibility study. Presentations and reports with manufacturing drawings and prototypes are completed by each team.

**J M ENGR 4120 Design of Thermal Systems: 3 semester hours**

Prerequisites: Senior Standing. Analysis and design of advanced thermo-fluid systems. Student teams participate in the design process which could involve research, design formulation, codes, standards, engineering economics, a design project report, and formal presentations. Topics include: thermal-fluid systems and components, such as power, heating, and refrigeration systems, pumps, fans, compressors, combustors, turbines, nozzles, coils, heat exchangers and piping.

**J M ENGR 4170 Dynamic Response Of Physical Systems: 2 semester hours**

Prerequisites: ENGR 2320 and J E MATH 3170, J M ENGR 4170 and J M ENGR 4180 must be taken in the same semester. Free and forced vibration of mechanical systems with lumped inertia, springs, and dampers. Methods of Laplace transform, complex harmonic balance, and Fourier series. Electrical analogs. Introduction to Lagrange's equations of motion and matrix formulations. Transient response of continuous systems by partial differential equations, by rayleigh methods, and by lumped parameters.

**J M ENGR 4180 Dynamic Response Laboratory: 2 semester hours**

PREREQUISITES: J M ENGR 4170 and J M ENGR 4180 must be taken during the same semester. Laboratory problems focusing on materials covered in J M ENGR 4170.

**J M ENGR 4250 Material Selection In Engineering Design: 3 semester hours**

PREREQUISITES: Senior standing. Analysis of the scientific bases of material behavior in the light of research contributions of the last 20 years. Development of a rational approach to the selection of materials to meet a wide range of design requirements for conventional and advanced applications. Although emphasis will be placed on mechanical properties, other properties of interest in design will be discussed, e.g., acoustical, optical and thermal.

**J M ENGR 4310 Control Systems I: 3 semester hours**

Same as J E ENGR 4410. Prerequisites: J E MATH 3170, J E ENGR 2300. Introduction to automatic control concepts. Block diagram representation of single and multi-loop systems. Multi-input and multi-output systems. Control system components. Transient and steady-state performance; stability analysis; Routh, Nyquist, Bode, and root locus diagrams. Compensation using lead, lag, and lead-lag networks. Synthesis by Bode plot plots and root-locus diagrams. Introduction to state-variable techniques, state transition matrix, state-variable feedback.

**J M ENGR 4440 Solar Energy: 3 semester hours**

Prerequisites: J M ENGR 3200, J M ENGR 3700, and J M ENGR 3710. This course will cover the following topics: extraterrestrial solar radiation; solar radiation on the earth's surface; weather bureau data; review of selected topics in heat transfer; methods of solar energy collection including flat panel and concentrating collectors; solar energy storage; transient and long-term solar system and performance.

**J M ENGR 4630 Nanotechnology: Concepts And Applications: 3 semester hours****J M ENGR 4700 Sustainable Environmental Building Systems: 3 semester hours**

Sustainable design of building lighting and HVAC systems considering performance, life-cycle cost and downstream environmental impact. Criteria, codes and standards for comfort, air quality, noise/vibration and illumination. Life cycle and other investment methods to integrate energy consumption/conservation, utility rates, initial cost, system/component longevity, maintenance cost and building productivity. Direct and secondary contributions to acid rain, global warming and ozone depletion.

**J M ENGR 4810 HVAC Analysis and Design I: 3 semester hours**

PREREQUISITES: Senior standing. Moist air properties and the psychrometric chart. Classic moist air processes and design procedures for heating and cooling systems. Design of heating, ventilating, and air conditioning systems for indoor environmental comfort and health. Basics of heat transfer in building structures. Solar radiation effects on building heat transfer. Calculation procedures for the analysis of heating and cooling loads in buildings.



**J M ENGR 4820 HVAC Analysis and Design II: 3 semester hours**

PREREQUISITES: Senior standing. Energy calculations to estimate the quantity of energy needed to heat and cool building structures. Fundamentals of incompressible flow, basics of centrifugal pump performance, and design procedures for water piping systems. Space air diffuser design to assure that temperatures, humidities, and air velocities within occupied spaces are acceptable. Air duct design and fan analysis for optimally distributing air through building air duct systems. Performance analysis of refrigeration systems, including the effects of pressure losses and heat transfer. Direct contact heat and mass transfer.

**J M ENGR 4900 Engineering Project Management: 3 semester hours**

Basic fundamentals and advanced concepts of engineering project management applicable to projects and programs, both large and small. Project management skills, techniques, systems, software and application of management science principles will be covered and related to research, engineering, architectural, and construction projects from initial evaluations through approval, design, procurement, construction and startup.

**Courses****J M ENGR 1413 Introduction To Engineering Design: CAD: 2 semester hours**

An introduction to engineering design in the context of mechanical engineering. Students learn the fundamentals of spatial reasoning and graphical representation. Freehand sketching, including pictorial and orthographic views, are applied to the design process. Computer modeling techniques provide accuracy, analysis, and visualization tools necessary for the design of devices and machines. Topics in detailing design for production, including fasteners, dimensioning, tolerancing, and creation of part and assembly drawings are also included.

**J M ENGR 1414 Introduction To Engineering Design: Project: 2 semester hours**

An introduction to engineering design in the context of mechanical engineering. Students first complete a series of experiments that introduce physical phenomena related to mechanical engineering. Understanding is achieved by designing and building simple devices and machines. The course proceeds to a design contest in which the students design and build from a kit of parts a more significant machine that competes in a contest held at the end of the course. The course is open to all and is appropriate for anyone interested in mechanical devices, design, and the design process.

**J M ENGR 2410 Mechanics Of Deformable Bodies: 3 semester hours**

Prerequisites: MATH 1900 and ENGR 2310. Normal and shear stresses and strains. Stress-strain diagrams. Hooke's law and elastic energy. Thermal stresses. Stresses in beams, columns, torsional members, and pressure vessels. Elastic deflection of beams and shafts. Statically indeterminate structures. Mohr's circle of stress. Stability concepts.

**J M ENGR 3010 Computer Aided Design: 3 semester hours**

Prerequisite: J M ENGR 1413. Computer aided design, analysis and optimization of parts and assemblies; solid modeling of complex surfaces, creation of detail drawings, dimensioning and tolerancing; assembly modeling, assembly constraints, interference checking; motion constraints, force and acceleration analysis, thermal analysis; part optimization for weight, strength and thermal characteristics using Unigraphics software.

**J M ENGR 3200 Thermodynamics: 3 semester hours**

Prerequisites: MATH 1900, CHEM 1111 and PHYSICS 2111. Classical thermodynamics; thermodynamic properties; work and heat; first and second laws. Entropy, irreversibility, availability. Application to engineering systems.

**J M ENGR 3221 Mechanical Design And Machine Elements: 4 semester hours**

Prerequisites: J M ENGR 1414, J M ENGR 1415, J M ENGR 2410, J E MATH 3170. Provides a thorough overview of the steps in the engineering design process and introduces analytical/quantitative techniques applicable to each step. Topics include recognition of need, specification formulation, concept generation, concept selection, embodiment, and detail design. Includes an introduction to several classes of machine elements such as bearings, gears, belts, and springs. Underlying analytical model of the machine elements are presented along with guidelines about designing and choosing such elements for practical applications. A case study from industry will emphasize how the steps of the design process were done as well as the rationale for choosing particular machine elements.

**J M ENGR 3250 Material Science For J M ENGR: 4 semester hours**

Prerequisites: CHEM 1111. Introduces the chemistry and physics of engineering materials. Emphasis on atomic and molecular interpretation of physical and chemical properties, the relationships between physical and chemical properties, and performance of an engineering material.

**J M ENGR 3360 Material Science For J C ENGR: 3 semester hours**

Same as J M ENGR 3250, but without the lab. Prerequisite: CHEM 1111. Introduces the chemistry and physics of engineering materials. Emphasis on atomic and molecular interpretation of physical and chemical properties, the relationships between physical and chemical properties, and performance of an engineering material.

**J M ENGR 3700 Fluid Mechanics: 3 semester hours**

Prerequisites: J E MATH 3170 and ENGR 2320. Fundamental concepts of fluids as continua. Viscosity. Flow field: velocity, vorticity, streamlines. Fluid statics: hydrostatic forces manometers. Conservation of mass and momentum. Incompressible inviscid flow. Dimensional analysis and similitude. Flow in pipes and ducts. Flow measurement. Boundary-layer concepts. Flow in open channels.

**J M ENGR 3710 Principles Of Heat Transfer: 3 semester hours**

Prerequisites: J M ENGR 3200, J M ENGR 3700 and J E MATH 3170. Introductory treatment of the principles of heat transfer by conduction, convection, or radiation. Mathematical analysis of steady and unsteady conduction along with numerical methods. Analytical and semiempirical methods of forced and natural convection systems. Heat exchangers: LMTD and e-NTU analysis. Boiling and condensation heat transfer. Radiation between blackbody and real surfaces. Radiation network analysis.

**J M ENGR 3721 Fluid Mechanics Laboratory: 1 semester hour**

Prerequisites: J M ENGR 3700 Physical laboratory exercises focusing on fluid properties and flow phenomena covered in J M ENGR 3700. Calibration and use of a variety of equipment; acquisition, processing, and analysis of data by manual as well as automated methods.

**J M ENGR 3722 Heat Transfer Laboratory: 1 semester hour**

Prerequisites: J M ENGR 3721 and J M ENGR 3710. Physical laboratory exercises, including some numerical simulations and computational exercises, focusing on heat-transfer phenomena covered in J M ENGR 3710. Calibration and use of variety of laboratory instrumentation; acquisition, processing, and analysis of data by manual as well as automated methods; training in formal report writing.

***J M ENGR 3750 Fluid Control and Power Systems Theory And Practice: 3 semester hours***

Prerequisite: J M ENGR 3700. Topics to be covered include: design of hydraulic and pneumatic control and power systems using advanced concepts and analytical tools; analysis of fluid flow through small orifices and between parallel and inclined planes; theory of spool and flapper valves; physical configuration of practical components: pumps, motors, fluid lines and valves, accumulators and storage devices; integration of components into practical systems, development of realistic performance diagrams using MATLAB Symulink; application of performance diagrams in design and analysis of fluid power systems.

***J M ENGR 4000 Independent Study: 3 semester hours***

Prerequisites: Junior standing and consent of faculty advisor Independent investigation of a mechanical engineering topic of special interest to a student performed under the direction of a faculty member.

***J M ENGR 4041 Current Topics In Engineering Design: 1 semester hour***

Case studies of engineering failures, class discussion & short written papers are used to illustrate and stress the importance of engineering teamwork, ethics, and professional standards within the mechanical engineering discipline. Working in teams students develop and present a case study on a topic of their choice. Guest lecturers introduce contemporary topics such as product liability, environmental regulations, green design, appropriate technologies, and concurrent engineering.

***J M ENGR 4110 Mechanical Engineering Design Project: 4 semester hours***

Prerequisites: J M ENGR 3221. Feasibility study of an open-ended, original design or a creative redesign of a mechanical component or system requiring the application of engineering science principles. Feasibility is subject to economic, safety, legal, environmental, ethical, aesthetic, and other constraints in a competitive manufacturing environment. Project teams perform the detailed design and optimization of the concept developed in the feasibility study. Presentations and reports with manufacturing drawings and prototypes are completed by each team.

***J M ENGR 4120 Design of Thermal Systems: 3 semester hours***

Prerequisites: Senior Standing. Analysis and design of advanced thermo-fluid systems. Student teams participate in the design process which could involve research, design formulation, codes, standards, engineering economics, a design project report, and formal presentations. Topics include: thermal-fluid systems and components, such as power, heating, and refrigeration systems, pumps, fans, compressors, combustors, turbines, nozzles, coils, heat exchangers and piping.

***J M ENGR 4170 Dynamic Response Of Physical Systems: 2 semester hours***

Prerequisites: ENGR 2320 and J E MATH 3170, J M ENGR 4170 and J M ENGR 4180 must be taken in the same semester. Free and forced vibration of mechanical systems with lumped inertia, springs, and dampers. Methods of Laplace transform, complex harmonic balance, and Fourier series. Electrical analogs. Introduction to Lagrange's equations of motion and matrix formulations. Transient response of continuous systems by partial differential equations, by rayleigh methods, and by lumped parameters.

***J M ENGR 4180 Dynamic Response Laboratory: 2 semester hours***

PREREQUISITES: J M ENGR 4170 and J M ENGR 4180 must be taken during the same semester. Laboratory problems focusing on materials covered in J M ENGR 4170.

***J M ENGR 4250 Material Selection In Engineering Design: 3 semester hours***

PREREQUISITES: Senior standing. Analysis of the scientific bases of material behavior in the light of research contributions of the last 20 years. Development of a rational approach to the selection of materials to meet a wide range of design requirements for conventional and advanced applications. Although emphasis will be placed on mechanical properties, other properties of interest in design will be discussed, e.g., acoustical, optical and thermal.

***J M ENGR 4310 Control Systems I: 3 semester hours***

Same as J E ENGR 4410. Prerequisites: J E MATH 3170, J E ENGR 2300. Introduction to automatic control concepts. Block diagram representation of single and multi-loop systems. Multi-input and multi-output systems. Control system components. Transient and steady-state performance; stability analysis; Routh, Nyquist, Bode, and root locus diagrams. Compensation using lead, lag, and lead-lag networks. Synthesis by Bode plot plots and root-locus diagrams. Introduction to state-variable techniques, state transition matrix, state-variable feedback.

***J M ENGR 4440 Solar Energy: 3 semester hours***

Prerequisites: J M ENGR 3200, J M ENGR 3700, and J M ENGR 3710. This course will cover the following topics: extraterrestrial solar radiation; solar radiation on the earth's surface; weather bureau data; review of selected topics in heat transfer; methods of solar energy collection including flat panel and concentrating collectors; solar energy storage; transient and long-term solar system and performance.

***J M ENGR 4630 Nanotechnology: Concepts And Applications: 3 semester hours******J M ENGR 4700 Sustainable Environmental Building Systems: 3 semester hours***

Sustainable design of building lighting and HVAC systems considering performance, life-cycle cost and downstream environmental impact. Criteria, codes and standards for comfort, air quality, noise/vibration and illumination. Life cycle and other investment methods to integrate energy consumption/conservation, utility rates, initial cost, system/component longevity, maintenance cost and building productivity. Direct and secondary contributions to acid rain, global warming and ozone depletion.

***J M ENGR 4810 HVAC Analysis and Design I: 3 semester hours***

PREREQUISITES: Senior standing. Moist air properties and the psychrometric chart. Classic moist air processes and design procedures for heating and cooling systems. Design of heating, ventilating, and air conditioning systems for indoor environmental comfort and health. Basics of heat transfer in building structures. Solar radiation effects on building heat transfer. Calculation procedures for the analysis of heating and cooling loads in buildings.

***J M ENGR 4820 HVAC Analysis and Design II: 3 semester hours***

PREREQUISITES: Senior standing. Energy calculations to estimate the quantity of energy needed to heat and cool building structures. Fundamentals of incompressible flow, basics of centrifugal pump performance, and design procedures for water piping systems. Space air diffuser design to assure that temperatures, humidities, and air velocities within occupied spaces are acceptable. Air duct design and fan analysis for optimally distributing air through building air duct systems. Performance analysis of refrigeration systems, including the effects of pressure losses and heat transfer. Direct contact heat and mass transfer.

**J M ENGR 4900 Engineering Project Management: 3 semester hours**

Basic fundamentals and advanced concepts of engineering project management applicable to projects and programs, both large and small. Project management skills, techniques, systems, software and application of management science principles will be covered and related to research, engineering, architectural, and construction projects from initial evaluations through approval, design, procurement, construction and startup.

## Korean

### Courses

**KOREAN 1001 Korean I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, reading, and writing of Korean and upon the acquisition of the fundamentals of grammar and syntax.

**KOREAN 1002 Korean II: 5 semester hours**

Prerequisites: KOREAN 1001 or equivalent. Emphasis is placed upon the understanding, speaking, reading, and writing of Korean. Continuation of the acquisition of the fundamentals of grammar and syntax.

**KOREAN 2101 Intermediate Korean I: 5 semester hours**

Prerequisites: KOREAN 1002 or equivalent. Grammar review and continued development of language skills.

**KOREAN 2102 Intermediate Korean II: 5 semester hours**

PREREQUISITES: KOREAN 2101 or equivalent. Continuation of KOREAN 2101.

**KOREAN 2190 Special Readings: 1-3 semester hours**

Prerequisites: KOREAN 2102 or consent of the department Independent study through readings, reports, and conferences.

### Courses

**KOREAN 1001 Korean I: 5 semester hours**

Emphasis is placed upon the understanding, speaking, reading, and writing of Korean and upon the acquisition of the fundamentals of grammar and syntax.

**KOREAN 1002 Korean II: 5 semester hours**

Prerequisites: KOREAN 1001 or equivalent. Emphasis is placed upon the understanding, speaking, reading, and writing of Korean. Continuation of the acquisition of the fundamentals of grammar and syntax.

**KOREAN 2101 Intermediate Korean I: 5 semester hours**

Prerequisites: KOREAN 1002 or equivalent. Grammar review and continued development of language skills.

**KOREAN 2102 Intermediate Korean II: 5 semester hours**

PREREQUISITES: KOREAN 2101 or equivalent. Continuation of KOREAN 2101.

**KOREAN 2190 Special Readings: 1-3 semester hours**

Prerequisites: KOREAN 2102 or consent of the department Independent study through readings, reports, and conferences.

## Latin

### Courses

**LATIN 1001 Latin I: 5 semester hours**

A study of Latin grammar, syntax and vocabulary accompanied by reading selections from literary texts.

**LATIN 1002 Latin II: 5 semester hours**

Prerequisite: LATIN 1001 or equivalent. The study of vocabulary, grammar and syntax is continued from LATIN 1001, including readings and discussion from selected classical authors.

**LATIN 2101 Intermediate Latin Language And Culture: 3 semester hours**

Prerequisites: LATIN 1002 or equivalent Students will advance their understanding of Roman culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**LATIN 2150 Latin Literature In Translation: 3 semester hours**

Prerequisites: Sophomore standing. Reading and discussion of selected works in Latin literature from Republican Rome to late antiquity in English translation. This course may be repeated for credit if the topics vary.

**LATIN 2152 A Brief Introduction to Greek and Latin in English Today: 1 semester hour**

Same as GRK ANC 2152. This online course is designed to enrich the student's general liberal arts vocabulary as well as to improve mastery of terms used in law, medicine, and science. The emphasis is on vocabulary derived from Greek and Latin. Included will be the Greek alphabet and an introduction to historical language change involving the relationship among Greek, Latin, and Romance languages, and Germanic languages (particularly English). This course is not to be taken in addition to GRK ANC 2151.

**LATIN 2190 Special Readings: 1-3 semester hours**

prerequisite: LATIN 2101 and consent of department. Independent study through readings, reports and conferences.

### Courses

**LATIN 1001 Latin I: 5 semester hours**

A study of Latin grammar, syntax and vocabulary accompanied by reading selections from literary texts.

**LATIN 1002 Latin II: 5 semester hours**

Prerequisite: LATIN 1001 or equivalent. The study of vocabulary, grammar and syntax is continued from LATIN 1001, including readings and discussion from selected classical authors.

**LATIN 2101 Intermediate Latin Language And Culture: 3 semester hours**

Prerequisites: LATIN 1002 or equivalent Students will advance their understanding of Roman culture through discussions, readings, and written work. Language skills will be further developed through meaningful communicative interaction. This course fulfills the Humanities requirement.

**LATIN 2150 Latin Literature In Translation: 3 semester hours**

Prerequisites: Sophomore standing. Reading and discussion of selected works in Latin literature from Republican Rome to late antiquity in English translation. This course may be repeated for credit if the topics vary.

**LATIN 2152 A Brief Introduction to Greek and Latin in English Today: 1 semester hour**

Same as GRK ANC 2152. This online course is designed to enrich the student's general liberal arts vocabulary as well as to improve mastery of terms used in law, medicine, and science. The emphasis is on vocabulary derived from Greek and Latin. Included will be the Greek alphabet and an introduction to historical language change involving the relationship among Greek, Latin, and Romance languages, and Germanic languages (particularly English). This course is not to be taken in addition to GRK ANC 2151.



**LATIN 2190 Special Readings: 1-3 semester hours**

prerequisite: LATIN 2101 and consent of department. Independent study through readings, reports and conferences.

# Logistics and Operations Management

## Courses

**LOG OM 3300 Business Statistics: 3 semester hours**

Prerequisites: MATH 1100, MATH 1105, INFSYS 1800 and a 2.0 campus GPA. Construction and use of statistical models for business management. Students will learn techniques used for relational analysis and business forecasting and how to apply them in a business context. Tools include CHI-Square tests of statistical independence; analysis of variance; simple linear regression and correlation; multiple linear regression; and extrapolative techniques such as moving averages and exponential smoothing. Emphasis is placed on problem definition, construction of statistical models, analysis of data, and interpretation of results. Computers are used for extensive analyses of case data.

**LOG OM 3320 Introduction To Operations Management: 3 semester hours**

Prerequisites: A 2.0 campus GPA and either (ECON 1001, ACCTNG 2410 and LOG OM 3300) or (MATH 2000 and MATH 1320). An examination of the concepts, processes, and institutions which are fundamental to an understanding of manufacturing and service operations within organizations. Emphasis is on the management and organization of operations and upon the application of quantitative methods to the solution of strategic, tactical and operational problems.

**LOG OM 3349 Project Consulting and Execution: 3 semester hours**

Prerequisite LOG OM 3300 or equivalent and LOG OM 3320 or equivalent (may be taken concurrently). Provides real world experience in planning and executing projects. The class will have teams of students work on projects sponsored by companies and not for profit organizations for 2 to 6 weeks at a time. It will provide students practice in critical thinking, analysis, communication, and other critical skills identified as necessary for employees to function at a high level in their jobs.

**LOG OM 3390 Internship In Logistics And Operations Management: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of LOM electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of Logistics and Operations Management (LOM) where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. An LOM faculty member will monitor the student's program with the student providing a formal written report at the end of the project. LOG OM 3390 may not be counted toward the minimum credit hours for the LOM emphasis.

**LOG OM 3395 Special Administrative Problems - Management Science: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**LOG OM 3398 Seminar in Logistics and Operations Management: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of logistics and operations management. May be repeated for credit with different topics.

**LOG OM 3399 Independent Study In Logistics And Operations Management: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in logistics and operations management under the supervision of a full-time logistics and operations management faculty member.

**LOG OM 4312 Business Forecasting: 3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 or graduate standing; also either LOG OM 3320 or (MATH 3000 and MATH 1320) Further study of statistical tools for forecasting in a decision-making context. Topics include explanatory models (multiple regression), classical time series decomposition, and extrapolative techniques (exponential smoothing and Box-Jenkins procedures). In addition, methods for considering problems of intervention effects, seasonality, and collinearity will be discussed. Students will perform extensive analyses of time series data using computer packages.

**LOG OM 4321 Production and Operations Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. Application of the tools and techniques of statistical decision theory and operations research to production and operating problems. Emphasis is on the use of mathematical modeling and simulation techniques to analyze complex and ill-structured problems in large-scale systems.

**LOG OM 4322 Lean Production In Manufacturing And Service Operations: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320 Study of Lean Production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement techniques, quick set-ups, total productive maintenance, kanban scheduling, cellular production, team organization of workers, supplier relations, quality management, and the environmental aspects of production.

**LOG OM 4324 Service Operations Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial, transportation, hospitality, and governmental services industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management service quality, staffing, and personnel scheduling.

**LOG OM 4325 Environmental Sustainability in Business Operations: 3 semester hours**

Prerequisites: LOG OM 3320 or permission of instructor. This course studies the environmental impacts of business operations, and it focuses especially on the principles and methods of "lean and green" operations, i.e., ways in which organizations can reduce their costs and increase profits, while reducing their environmental impacts. Specific topics include energy efficiency, resource reduction, waste reduction, design for the environment, externalities and internal pricing mechanisms, environmental technologies, life-cycle assessment, recycling, re-use, and re-manufacturing, as well as national and global environmental issues.



**LOG OM 4326 Quality Assurance In Business: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of statistical quality control concepts and procedures applicable to management systems, administrative activities, service industries, and nonprofit organizations. Some successful quality assurance programs will be examined.

**LOG OM 4330 Business Logistics Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. Analysis of business logistics systems, their design, and operation. Topics include: network design, facility location, transportation, vehicle routing, storage and handling capacity planning, inventory management, and customer service.

**LOG OM 4347 Introduction to Project Management: 3 semester hours**

Prerequisites: LOG OM 3320. This course introduces the concepts and practices of Project Management with a focus on Logistics and Operations Management related projects. It will cover conventional aspects of project management, such as the project evaluation, planning, roles, responsibilities, scheduling, and tracking. In addition, this class will introduce agile project management as applicable to projects where there is not the specificity of goals or solutions to be applicable to traditional project management.

**LOG OM 4350 Management Science Methods: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320 or MATH 3000 and MATH 1320. Applications of the theories and techniques of operations research to problems of business, government, and industry with emphasis on the construction and utilization of quantitative decision models.

**LOG OM 4354 Management Science Methods II: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 4350. Topics of special interest including mathematical programming, stochastic decision-making, digital simulation, game theory, and other selected techniques. (Formerly Mathematical programming).

**LOG OM 4381 International Logistics And Operations Management: 3 semester hours**

Same as INTL BUS 4381. Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of business logistics and supply chain strategies involving shipments across national boundaries. Topics include the effects of international agreements and regional trading blocks on supply chain strategies; the design of global logistics networks; managerial processes and systems for international production and distribution, and risk management for international logistics.

**LOG OM 4398 Seminar in Logistics and Operations Management: 1-3 semester hours**

Prerequisites: LOG OM 3320 or permission of the instructor and a minimum 2.0 campus GPA. For some topics additional prerequisites may be required. An intensive study of a specific aspect, problem or technique in the areas of logistics, operations management, or supply chain management. Different topics may be offered under this course number, so the course (with different topics) can be repeated for credit.

**LOG OM 5300 Statistical Analysis For Management Decisions: 3 semester hours**

Prerequisites: INFSYS 5800 (may be taken concurrently) and ECON 4105 with a minimum grade of "C" The role of statistical evidence in the formation of inference and in the selection of strategies in solving business problems is developed. Probability and probability distributions are studied as a basis of statistical inference. An introduction to multivariate analysis is provided, which includes analysis of variance and regression methods.

**LOG OM 5312 Advanced Statistical Methods For Management Decisions: 3 semester hours**

Prerequisites: LOG OM 5300 The application of statistical methods to managerial problems, forecasting and business research. Topics include the blending of multiple regression and analysis of variance into a general linear model, logistic models, techniques for projecting seasonal time series, and forecasting techniques (ARIMA models) which deal with serially correlated data. Through class presentations, assigned exercises and a major project, students gain experience in constructing explanatory and predictive models for problems in marketing, finance, etc. Students use commercial software (e.g. the Statistical Analysis System) for analyzing data, constructing models and producing reports.

**LOG OM 5320 Production And Operations Management: 3 semester hours**

Prerequisites: LOG OM 5300 This course discusses issues related to the creation and delivery of goods and services. Topics include the design of production processes, the layout and location of facilities, forecasting, scheduling, inventory control, queuing, materials planning, and quality control. Analytical techniques such as linear programming are used in studying these problems.

**LOG OM 5322 Lean Production: 3 semester hours**

Prerequisites: LOG OM 5320. Study of Lean Production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement, set-up reduction, total productive maintenance, kanban scheduling, cellular production, work teams, supplier relations, quality management, and the environmental aspects of production. Cases and a course project will be used to integrate and apply the course material.

**LOG OM 5324 Service Operations Management: 3 semester hours**

Prerequisite: LOG OM 5320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial, transportation, hospitality, and governmental services industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management, service quality, staffing, and personnel scheduling.

**LOG OM 5325 Environmental Analysis and Sustainability in Business Operations: 3 semester hours**

Prerequisites: LOG OM 5320 or permission of instructor. This course studies the environmental impacts of business operations, and it focuses especially on the principles and methods of "lean and green" operations, i.e., ways in which organizations can reduce their costs and increase profits, while reducing their environmental impacts. Specific topics include energy efficiency, resource reduction, waste reduction, design for the environment, externalities and internal pricing mechanisms, environmental technologies, life-cycle assessment, recycling, re-use, and re-manufacturing, as well as national and global environmental issues.

**LOG OM 5326 Quality Management: 3 semester hours**

Prerequisites: LOG OM 5300 or MATH 4200 or permission of instructor. An applied course on total quality management. Quality improvement approaches are presented and the managerial implications and responsibilities in implementing these approaches are discussed. Typical coverage includes the construction and interpretation of control charts, graphical methods, quality function deployment, robust experiments for product design and improvement, mistake-proofing (poke yoke), the Deming approach, Baldrige award criteria, quality cost audits, worker empowerment and reward systems. Cases involving both business processes and physical processes are used to illustrate successful quality improvement efforts.

**LOG OM 5334 Internship In Logistics And Supply Chain Management: 1 semester hour**

Prerequisite: Consent of Instructor Students receive practical experience in the area of logistics or supply chain management. The internship is supervised by a professional in the host organization in consultation with a faculty member.

**LOG OM 5340 Transportation Economics for Business Managers: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5000 or permission of the instructor. This course makes use of a range of economic concepts to examine the nature of markets in which transport services are provided. This course is designed for future transportation professionals who wish to explore the fundamentals of economics in their field. Basic concepts covered include the theory of transportation demand, transportation costs and investment planning, and current topics in transportation economics such as regulation-deregulation and social cost pricing.

**LOG OM 5349 Project Consulting and Execution: 3 semester hours**

Prerequisites: LOG OM 5300 or equivalent; LOG OM 5320 or equivalent (may be taken concurrently). Provides real world experience in planning and executing projects. The class will have teams of students work on projects sponsored by companies and not for profit organizations for 2 to 6 weeks at a time. It will provide students practice in critical thinking, analysis, communication, and other critical skills identified as necessary for employees to function at a high level in their jobs. A student may NOT count LOG OM 5349 and an internship toward the LOG OM emphasis. Only one of the two would count.

**LOG OM 5354 Simulation For Managerial Decision Making: 3 semester hours**

Prerequisites: LOG OM 5320. Introduction to simulation as a managerial decision-making aid. Application of simulation to a number of management science-oriented problems. This course introduces and requires use of a simulation language.

**LOG OM 5381 International Logistics And Operations Management: 3 semester hours**

Same as INTL BUS 5381. Prerequisites: LOG OM 5320. A study of international logistics and operations management strategy, planning and operations. Topics may include multinational logistics and supply chain strategies, global network design and sourcing, international transportation, distribution and operations, import-export, risk management, etc.

**LOG OM 5399 Individual Research in Logistics and Operations Management: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Logistics and Operations Management under the guidance of a specific professor.

**LOG OM 6330 Business Logistics Systems: 3 semester hours**

Prerequisites: LOG OM 5320 (may be taken concurrently). Analysis of business logistics systems and their role in supply chain management. covers both design and operation of logistics systems and their components. Topics may include network design, facility location, transportation, vehicle routing, inventory management, customer service, reverse logistics and logistics information systems.

**LOG OM 6331 Logistics And Supply Chain Operational Modeling: 3 semester hours**

Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the operational management of logistics and supply chains. This course covers the economic tradeoffs involved in such decisions, data requirements, operating parameters, and application of software packages to problems such as vehicle routing and scheduling, freight shipments consolidation, cross-docking, and other operational and tactical strategies. This "hands on" course is designed to prepare students for higher-level supply chain analyses and consulting work.

**LOG OM 6332 Logistics And Supply Chain Strategic Modeling: 3 semester hours**

Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the planning and strategic management of logistics networks and supply chains. The course identifies and explores the economic and customer service tradeoffs involved in such networks. Issues such as location of facilities assignment of production and distribution missions to facilities, identification of sourcing relationships amongst facilities, and identification of cost and customer service consequences of alternative supply chain designs are addressed by the application of commercial software packages to support decision making. This "hands on" course is designed to prepare students for high-level supply chain analyses and consulting work.

**LOG OM 6338 Business Processes: Design, Management & Integration: 3 semester hours**

Prerequisites: LOG OM 5320. This course presents the concepts and state of the art / state of the practice of business process design and business process management for improving business performance, effectiveness, quality, customer service and satisfaction. Issues related to characteristics, goals, benefits and costs of enterprise-wide design, and the role of information technology during the design process will be discussed. Specific topics will include: the history and development of process focused businesses and the impacts on processes caused by just-in-time and total quality management philosophies, organizational learning, strategy mapping, et.al. We will also discuss the exploitation of core competencies and changing business scenarios such as globalization and electronic-commerce. We will draw from the literature to explore the notion of moving from business strategies to business processes. We will review current writings relative to the subject, and then will apply our knowledge to actual process design, documentation, analysis and simulation. We will introduce computer-based modeling tools for process design and simulation, and use those tools in both in-class and individual work.

**LOG OM 6345 Business Analytics and Data Mining: 3 semester hours**

Prerequisites: LOG OM 5300 and INFSYS 5800. This course concentrates on methods for converting data into business intelligence. It provides knowledge of the principles and techniques for business analytics and data mining. Topics include clustering, pattern recognition, visualization of relationships, predictive modeling, optimization techniques and simulation.

**LOG OM 6347 LOM Project Management: 3 semester hours**

Prerequisites: LOG OM 5320. This course addresses the concepts and processes of project management as applicable to Logistics and Operations Management. Students study organizational design, project specification, integrated project planning, risk management and project control; students will come to understand how globalization, environmental and sustainability issues, quality control (including industry standard initiatives such as the Continuing Integration Improvement Model and the International Standards Organization model), and cultural factors drive project management. NOTE: Credit may not be earned for both LOG OM 6347 and INFSYS 6847.

**LOG OM 6350 Management Science Methods: 3 semester hours**

Prerequisites: LOG OM 5320. This course provides a working knowledge of management science techniques. It emphasizes analytical approaches to solving business problems, construction of mathematical models, and manipulation of model variables for managerial decision-making. Topics include mathematical programming, including integer and network models, heuristics, and simulation models.

**LOG OM 6395 Seminar In Logistics And Operations Management: 3 semester hours**

Prerequisite: LOG OM 5320 Topics of current interest in logistics and operations management. Topics may include just-in-time and lean production, quality management, manufacturing and service systems, transportation and logistics, quantitative management tools, etc.

**LOG OM 7381 International Supply Chain Management: 3 semester hours**

Prerequisites: LOG OM 5320; Admittance into the Ph.D. Program A comprehensive examination of international logistics and supply chain management strategies, planning and operations from the firm's perspective. Topics may include multinational logistics and supply chain issues and management strategies, multinational sourcing and network design, transportation issues in international supply chains, multinational distribution and operations, legal and financial issues in import and export, risk identification and management in international supply chains, and the relationship of supply chain management to other activities of international firms.

**LOG OM 7390 Research Seminar In LSCM: 3 semester hours**

Prerequisites: LOG OM 6330; Admittance into the Ph.D. Program. Analysis of research approaches, and findings in Logistics and Supply Chain Management. May be repeated for credit when the subject matter is different.

**LOG OM 7393 Special Topics In LSCM: 3 semester hours**

Prerequisites: Consent of Instructor; Admittance into the Ph.D. Program In-depth analysis of special topics in Logistics and Supply Chain Management research. May be repeated for credit when the subject matter is different.

## Courses

**LOG OM 3300 Business Statistics: 3 semester hours**

Prerequisites: MATH 1100, MATH 1105, INFSYS 1800 and a 2.0 campus GPA. Construction and use of statistical models for business management. Students will learn techniques used for relational analysis and business forecasting and how to apply them in a business context. Tools include CHI-Square tests of statistical independence; analysis of variance; simple linear regression and correlation; multiple linear regression; and extrapolative techniques such as moving averages and exponential smoothing. Emphasis is placed on problem definition, construction of statistical models, analysis of data, and interpretation of results. Computers are used for extensive analyses of case data.

**LOG OM 3320 Introduction To Operations Management: 3 semester hours**

Prerequisites: A 2.0 campus GPA and either (ECON 1001, ACCTNG 2410 and LOG OM 3300) or (MATH 2000 and MATH 1320). An examination of the concepts, processes, and institutions which are fundamental to an understanding of manufacturing and service operations within organizations. Emphasis is on the management and organization of operations and upon the application of quantitative methods to the solution of strategic, tactical and operational problems.

**LOG OM 3349 Project Consulting and Execution: 3 semester hours**

Prerequisite LOG OM 3300 or equivalent and LOG OM 3320 or equivalent (may be taken concurrently). Provides real world experience in planning and executing projects. The class will have teams of students work on projects sponsored by companies and not for profit organizations for 2 to 6 weeks at a time. It will provide students practice in critical thinking, analysis, communication, and other critical skills identified as necessary for employees to function at a high level in their jobs.

**LOG OM 3390 Internship In Logistics And Operations Management: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of LOM electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of Logistics and Operations Management (LOM) where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. An LOM faculty member will monitor the student's program with the student providing a formal written report at the end of the project. LOG OM 3390 may not be counted toward the minimum credit hours for the LOM emphasis.

**LOG OM 3395 Special Administrative Problems - Management Science: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**LOG OM 3398 Seminar in Logistics and Operations Management: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of logistics and operations management. May be repeated for credit with different topics.

**LOG OM 3399 Independent Study In Logistics And Operations Management: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in logistics and operations management under the supervision of a full-time logistics and operations management faculty member.

**LOG OM 4312 Business Forecasting: 3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 or graduate standing; also either LOG OM 3320 or (MATH 3000 and MATH 1320) Further study of statistical tools for forecasting in a decision-making context. Topics include explanatory models (multiple regression), classical time series decomposition, and extrapolative techniques (exponential smoothing and Box-Jenkins procedures). In addition, methods for considering problems of intervention effects, seasonality, and collinearity will be discussed. Students will perform extensive analyses of time series data using computer packages.



**LOG OM 4321 Production and Operations Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. Application of the tools and techniques of statistical decision theory and operations research to production and operating problems. Emphasis is on the use of mathematical modeling and simulation techniques to analyze complex and ill-structured problems in large-scale systems.

**LOG OM 4322 Lean Production In Manufacturing And Service Operations: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. Study of Lean Production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement techniques, quick set-ups, total productive maintenance, kanban scheduling, cellular production, team organization of workers, supplier relations, quality management, and the environmental aspects of production.

**LOG OM 4324 Service Operations Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial, transportation, hospitality, and governmental services industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management service quality, staffing, and personnel scheduling.

**LOG OM 4325 Environmental Sustainability in Business Operations: 3 semester hours**

Prerequisites: LOG OM 3320 or permission of instructor. This course studies the environmental impacts of business operations, and it focuses especially on the principles and methods of "lean and green" operations, i.e., ways in which organizations can reduce their costs and increase profits, while reducing their environmental impacts. Specific topics include energy efficiency, resource reduction, waste reduction, design for the environment, externalities and internal pricing mechanisms, environmental technologies, life-cycle assessment, recycling, re-use, and re-manufacturing, as well as national and global environmental issues.

**LOG OM 4326 Quality Assurance In Business: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of statistical quality control concepts and procedures applicable to management systems, administrative activities, service industries, and nonprofit organizations. Some successful quality assurance programs will be examined.

**LOG OM 4330 Business Logistics Systems: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. Analysis of business logistics systems, their design, and operation. Topics include: network design, facility location, transportation, vehicle routing, storage and handling capacity planning, inventory management, and customer service.

**LOG OM 4347 Introduction to Project Management: 3 semester hours**

Prerequisites: LOG OM 3320. This course introduces the concepts and practices of Project Management with a focus on Logistics and Operations Management related projects. It will cover conventional aspects of project management, such as the project evaluation, planning, roles, responsibilities, scheduling, and tracking. In addition, this class will introduce agile project management as applicable to projects where there is not the specificity of goals or solutions to be applicable to traditional project management.

**LOG OM 4350 Management Science Methods: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320 or MATH 3000 and MATH 1320. Applications of the theories and techniques of operations research to problems of business, government, and industry with emphasis on the construction and utilization of quantitative decision models.

**LOG OM 4354 Management Science Methods II: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 4350. Topics of special interest including mathematical programming, stochastic decision-making, digital simulation, game theory, and other selected techniques. (Formerly Mathematical programming).

**LOG OM 4381 International Logistics And Operations Management: 3 semester hours**

Same as INTL BUS 4381. Prerequisites: A minimum campus GPA of 2.0 or graduate standing; also LOG OM 3320. A study of business logistics and supply chain strategies involving shipments across national boundaries. Topics include the effects of international agreements and regional trading blocks on supply chain strategies; the design of global logistics networks; managerial processes and systems for international production and distribution, and risk management for international logistics.

**LOG OM 4398 Seminar in Logistics and Operations Management: 1-3 semester hours**

Prerequisites: LOG OM 3320 or permission of the instructor and a minimum 2.0 campus GPA. For some topics additional prerequisites may be required. An intensive study of a specific aspect, problem or technique in the areas of logistics, operations management, or supply chain management. Different topics may be offered under this course number, so the course (with different topics) can be repeated for credit.

**LOG OM 5300 Statistical Analysis For Management Decisions: 3 semester hours**

Prerequisites: INFSYS 5800 (may be taken concurrently) and ECON 4105 with a minimum grade of "C" The role of statistical evidence in the formation of inference and in the selection of strategies in solving business problems is developed. Probability and probability distributions are studied as a basis of statistical inference. An introduction to multivariate analysis is provided, which includes analysis of variance and regression methods.

**LOG OM 5312 Advanced Statistical Methods For Management Decisions: 3 semester hours**

Prerequisites: LOG OM 5300 The application of statistical methods to managerial problems, forecasting and business research. Topics include the blending of multiple regression and analysis of variance into a general linear model, logistic models, techniques for projecting seasonal time series, and forecasting techniques (ARIMA models) which deal with serially correlated data. Through class presentations, assigned exercises and a major project, students gain experience in constructing explanatory and predictive models for problems in marketing, finance, etc. Students use commercial software (e.g. the Statistical Analysis System) for analyzing data, constructing models and producing reports.

**LOG OM 5320 Production And Operations Management: 3 semester hours**

Prerequisites: LOG OM 5300 This course discusses issues related to the creation and delivery of goods and services. Topics include the design of production processes, the layout and location of facilities, forecasting, scheduling, inventory control, queuing, materials planning, and quality control. Analytical techniques such as linear programming are used in studying these problems.



**LOG OM 5322 Lean Production: 3 semester hours**

Prerequisites: LOG OM 5320. Study of Lean Production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement, set-up reduction, total productive maintenance, kanban scheduling, cellular production, work teams, supplier relations, quality management, and the environmental aspects of production. Cases and a course project will be used to integrate and apply the course material.

**LOG OM 5324 Service Operations Management: 3 semester hours**

Prerequisite: LOG OM 5320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial, transportation, hospitality, and governmental services industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management, service quality, staffing, and personnel scheduling.

**LOG OM 5325 Environmental Analysis and Sustainability in Business Operations: 3 semester hours**

Prerequisites: LOG OM 5320 or permission of instructor. This course studies the environmental impacts of business operations, and it focuses especially on the principles and methods of "lean and green" operations, i.e., ways in which organizations can reduce their costs and increase profits, while reducing their environmental impacts. Specific topics include energy efficiency, resource reduction, waste reduction, design for the environment, externalities and internal pricing mechanisms, environmental technologies, life-cycle assessment, recycling, re-use, and re-manufacturing, as well as national and global environmental issues.

**LOG OM 5326 Quality Management: 3 semester hours**

Prerequisites: LOG OM 5300 or MATH 4200 or permission of instructor. An applied course on total quality management. Quality improvement approaches are presented and the managerial implications and responsibilities in implementing these approaches are discussed. Topical coverage includes the construction and interpretation of control charts, graphical methods, quality function deployment, robust experiments for product design and improvement, mistake-proofing (poke yoke), the Deming approach, Baldrige award criteria, quality cost audits, worker empowerment and reward systems. Cases involving both business processes and physical processes are used to illustrate successful quality improvement efforts.

**LOG OM 5334 Internship In Logistics And Supply Chain Management: 1 semester hour**

Prerequisite: Consent of Instructor Students receive practical experience in the area of logistics or supply chain management. The internship is supervised by a professional in the host organization in consultation with a faculty member.

**LOG OM 5340 Transportation Economics for Business Managers: 3 semester hours**

Prerequisites: ECON 3001 or BUS AD 5000 or permission of the instructor. This course makes use of a range of economic concepts to examine the nature of markets in which transport services are provided. This course is designed for future transportation professionals who wish to explore the fundamentals of economics in their field. Basic concepts covered include the theory of transportation demand, transportation costs and investment planning, and current topics in transportation economics such as regulation-deregulation and social cost pricing.

**LOG OM 5349 Project Consulting and Execution: 3 semester hours**

Prerequisites: LOG OM 5300 or equivalent; LOG OM 5320 or equivalent (may be taken concurrently). Provides real world experience in planning and executing projects. The class will have teams of students work on projects sponsored by companies and not for profit organizations for 2 to 6 weeks at a time. It will provide students practice in critical thinking, analysis, communication, and other critical skills identified as necessary for employees to function at a high level in their jobs. A student may NOT count LOG OM 5349 and an internship toward the LOG OM emphasis. Only one of the two would count.

**LOG OM 5354 Simulation For Managerial Decision Making: 3 semester hours**

Prerequisites: LOG OM 5320. Introduction to simulation as a managerial decision-making aid. Application of simulation to a number of management science-oriented problems. This course introduces and requires use of a simulation language.

**LOG OM 5381 International Logistics And Operations Management: 3 semester hours**

Same as INTL BUS 5381. Prerequisites: LOG OM 5320. A study of international logistics and operations management strategy, planning and operations. Topics may include multinational logistics and supply chain strategies, global network design and sourcing, international transportation, distribution and operations, import-export, risk management, etc.

**LOG OM 5399 Individual Research in Logistics and Operations Management: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Logistics and Operations Management under the guidance of a specific professor.

**LOG OM 6330 Business Logistics Systems: 3 semester hours**

Prerequisites: LOG OM 5320 (may be taken concurrently). Analysis of business logistics systems and their role in supply chain management. covers both design and operation of logistics systems and their components. Topics may include network design, facility location, transportation, vehicle routing, inventory management, customer service, reverse logistics and logistics information systems.

**LOG OM 6331 Logistics And Supply Chain Operational Modeling: 3 semester hours**

Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the operational management of logistics and supply chains. This course covers the economic tradeoffs involved in such decisions, data requirements, operating parameters, and application of software packages to problems such as vehicle routing and scheduling, freight shipments consolidation, cross-docking, and other operational and tactical strategies. This "hands on" course is designed to prepare students for higher-level supply chain analyses and consulting work.

**LOG OM 6332 Logistics And Supply Chain Strategic Modeling: 3 semester hours**

Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the planning and strategic management of logistics networks and supply chains. The course identifies and explores the economic and customer service tradeoffs involved in such networks. Issues such as location of facilities assignment of production and distribution missions to facilities, identification of sourcing relationships amongst facilities, and identification of cost and customer service consequences of alternative supply chain designs are addressed by the application of commercial software packages to support decision making. This "hands on" course is designed to prepare students for high-level supply chain analyses and consulting work.

**LOG OM 6338 Business Processes: Design, Management & Integration: 3 semester hours**

Prerequisites: LOG OM 5320. This course presents the concepts and state of the art / state of the practice of business process design and business process management for improving business performance, effectiveness, quality, customer service and satisfaction. Issues related to characteristics, goals, benefits and costs of enterprise-wide design, and the role of information technology during the design process will be discussed. Specific topics will include: the history and development of process focused businesses and the impacts on processes caused by just-in-time and total quality management philosophies, organizational learning, strategy mapping, et.al. We will also discuss the exploitation of core competencies and changing business scenarios such as globalization and electronic-commerce. We will draw from the literature to explore the notion of moving from business strategies to business processes. We will review current writings relative to the subject, and then will apply our knowledge to actual process design, documentation, analysis and simulation. We will introduce computer-based modeling tools for process design and simulation, and use those tools in both in-class and individual work.

**LOG OM 6345 Business Analytics and Data Mining: 3 semester hours**

Prerequisites: LOG OM 5300 and INFSYS 5800. This course concentrates on methods for converting data into business intelligence. It provides knowledge of the principles and techniques for business analytics and data mining. Topics include clustering, pattern recognition, visualization of relationships, predictive modeling, optimization techniques and simulation.

**LOG OM 6347 LOM Project Management: 3 semester hours**

Prerequisites: LOG OM 5320. This course addresses the concepts and processes of project management as applicable to Logistics and Operations Management. Students study organizational design, project specification, integrated project planning, risk management and project control; students will come to understand how globalization, environmental and sustainability issues, quality control (including industry standard initiatives such as the Continuing Integration Improvement Model and the International Standards Organization model), and cultural factors drive project management. NOTE: Credit may not be earned for both LOG OM 6347 and INFSYS 6847.

**LOG OM 6350 Management Science Methods: 3 semester hours**

Prerequisites: LOG OM 5320. This course provides a working knowledge of management science techniques. It emphasizes analytical approaches to solving business problems, construction of mathematical models, and manipulation of model variables for managerial decision-making. Topics include mathematical programming, including integer and network models, heuristics, and simulation models.

**LOG OM 6395 Seminar In Logistics And Operations Management: 3 semester hours**

Prerequisite: LOG OM 5320 Topics of current interest in logistics and operations management. Topics may include just-in-time and lean production, quality management, manufacturing and service systems, transportation and logistics, quantitative management tools, etc.

**LOG OM 7381 International Supply Chain Management: 3 semester hours**

Prerequisites: LOG OM 5320; Admittance into the Ph.D. Program A comprehensive examination of international logistics and supply chain management strategies, planning and operations from the firm's perspective. Topics may include multinational logistics and supply chain issues and management strategies, multinational sourcing and network design, transportation issues in international supply chains, multinational distribution and operations, legal and financial issues in import and export, risk identification and management in international supply chains, and the relationship of supply chain management to other activities of international firms.

**LOG OM 7390 Research Seminar In LSCM: 3 semester hours**

Prerequisites: LOG OM 6330; Admittance into the Ph.D. Program. Analysis of research approaches, and findings in Logistics and Supply Chain Management. May be repeated for credit when the subject matter is different.

**LOG OM 7393 Special Topics In LSCM: 3 semester hours**

Prerequisites: Consent of Instructor; Admittance into the Ph.D. Program In-depth analysis of special topics in Logistics and Supply Chain Management research. May be repeated for credit when the subject matter is different.

## Mathematics

### Courses

**MATH 0005 Intermediate Algebra: 3 semester hours**

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Preparatory material for college level mathematics courses. Covers systems of linear equations and inequalities, polynomials, rational expressions, exponents, quadratic equations, graphing linear and quadratic functions. This course carries no credit towards any baccalaureate degree.

**MATH 1020 Contemporary Mathematics: 3 semester hours**

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Presents methods of problem solving, centering on problems and questions which arise naturally in everyday life. May include aspects of algebra and geometry, the mathematics of finance, probability and statistics, exponential growth, and other topics chosen from traditional and contemporary mathematics which do not employ the calculus. May be taken to meet the mathematical proficiency requirement, but may not be used as a prerequisite for other mathematics courses. Designed for students who do not plan to take calculus. Credit will not be granted for MATH 1020 if credit has been granted for MATH 1310, MATH 1800, MATH 1100, MATH 1102, or MATH 1105. Concurrent enrollment in MATH 1020 and any of these courses is not permitted.

**MATH 1021 Choice and Chance: 3 semester hours**

Same as PHIL 1021. Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. This course provides an introduction to inductive logic and the theory of probability in an organized and systematic way, so as to give students tools for more effective decision-making. We will introduce the probability calculus, basic concepts of utility theory, decision theory and different approaches to understanding probability. This course is designed to be accessible to students of all levels. Satisfies mathematics proficiency.

**MATH 1025 Geometry in the Real World: 3 semester hours**

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Presents topics in geometry designed to enrich the student's understanding of mathematics. Geometry as it applies to the physical world and such fields as art, music, nature, motion, architecture and city planning will be examined. This course is designed to be accessible to students of all levels. Satisfies mathematics proficiency.

**MATH 1030 College Algebra: 3 semester hours**

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Topics in algebra and probability, polynomial functions, the binomial theorem, logarithms, exponentials, and solutions to systems of equations.

**MATH 1035 Trigonometry: 2 semester hours**

Prerequisite: MATH 1030 or MATH 1040, or concurrent registration in either of these two courses, or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. A study of the trigonometric and inverse trigonometric functions with emphasis on trigonometric identities and equations.

**MATH 1040 College Algebra for Science and Engineering: 4 semester hours**

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Topics in this course include factoring, simplifying rational functions, functions and their graphs, solving linear and nonlinear equations, polynomial functions, inverse functions, the binomial theorem, logarithms, exponentials, solutions to systems of equations using matrices, solutions to nonlinear systems of equations, and sequences.

**MATH 1100 Basic Calculus: 3 semester hours**

Prerequisite: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Placement Examination, obtained at most one year prior to enrollment in this course. Introduction to plane analytic geometry and basic differential and integral calculus with applications to various areas. No credit for Mathematics majors. Credit not granted for both MATH 1800 and MATH 1100.

**MATH 1102 Finite Mathematics: 3 semester hours**

Prerequisites: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Introductory logic and set theory, partitions and counting problems, elementary probability theory, stochastic processes, Markov chains, vectors and matrices, linear programming, and game theory.

**MATH 1105 Basic Probability And Statistics: 3 semester hours**

Prerequisites: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. An introduction to probability and statistics. Topics include the concept of probability and its properties, descriptive statistics, discrete and continuous random variables, expected value, distribution functions, the central limit theorem, random sampling and sampling distributions. Credit not granted for more than one of MATH 1310, MATH 1320, and MATH 1105.

**MATH 1150 Structure Of Mathematical Systems I: 3 semester hours**

Prerequisites: 45 hours of college credit and a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course OR successful completion of MATH 1030 no more than 2 years prior to enrollment in this course. A study of sets, relations, functions, whole numbers; the integers and their properties, and the rational and real number systems.

**MATH 1310 Elementary Statistical Methods: 3 semester hours**

Prerequisite: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. An introduction to the basic tools and elementary methods of statistics, such as testing of hypotheses, analysis of variance, method of least squares, and time series. A student may not receive credit for more than one of MATH 1310, MATH 1320, and MATH 1105.

**MATH 1320 Applied Statistics I: 3 semester hours**

Prerequisites: MATH 1800 or MATH 1100. This is the first course of a one-year sequence in introductory probability and statistics. It provides a comprehensive introduction to those models and methods which are most likely to be encountered by students in their careers in applied mathematics and the sciences. Topics include descriptive statistics, basics of probability theory, random variables and their distributions, sampling distributions, confidence intervals, and hypothesis testing for population means and population proportions. A student may not receive credit for more than one of MATH 1310, MATH 1320 and MATH 1105.

**MATH 1800 Analytic Geometry And Calculus I: 5 semester hours**

Prerequisites: MATH 1030 and MATH 1035, or MATH 1040 and MATH 1035, or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. This course provides an introduction to differential and integral calculus. Topics include limits, derivatives, related rates, Newton's method, the Mean-Value Theorem, Max-Min problems, the integral, the Fundamental Theorem of Integral Calculus, areas, volumes, and average values.

**MATH 1900 Analytic Geometry And Calculus II: 5 semester hours**

Prerequisite: MATH 1800. Topics include conic sections, rotation of axes, polar coordinates, exponential and logarithmic functions, inverse (trigonometric) functions, integration techniques, applications of the integral (including mass, moments, arc length, and hydrostatic pressure), parametric equations, infinite series, power and Taylor series.

**MATH 2000 Analytic Geometry And Calculus III: 5 semester hours**

Prerequisite: MATH 1900. Topics include vectors, cylindrical and spherical coordinates, vector-valued functions, arc length and curvature, functions of several variables, partial and directional derivatives, gradients, extrema, Lagrange multipliers, multiple integrals, change of variables, surface area, vector fields, Stokes' Theorem.

**MATH 2020 Introduction To Differential Equations: 3 semester hours**

Prerequisite: MATH 2000. Topics will be chosen from: linear differential equations, equations with constant coefficients, laplace transforms, power series solutions, systems of ordinary differential equations.



**MATH 2450 Elementary Linear Algebra: 3 semester hours**

Prerequisite: MATH 1100 or MATH 1900. An introduction to linear algebra. Topics will include complex numbers, geometric vectors in two and three dimensions and their linear transformations, the algebra of matrices, determinants, solutions of systems of equations, eigenvalues and eigenvectors.

**MATH 2510 Structure Of Mathematical Systems II: 3 semester hours**

Prerequisite: MATH 1150. An introduction to probability and statistics. An intuitive study of elementary geometry. Introduction to the deductive theory of geometry and to coordinate geometry.

**MATH 3000 Discrete Structures: 3 semester hours**

Prerequisites: MATH 1900 or MATH 1100, and CMP SCI 1250 or equivalent. Treats fundamental ideas in discrete structures and serves as a foundation for subsequent courses in both Mathematics and Computer Science. Provides an introduction to techniques of mathematical reasoning with examples derived from computer science. Topics include logic, set algebra, equivalence relations and partitions, functions, mathematical induction, elementary number theory, cardinality, recurrence relations, basic combinatorial methods, trees and graphs. Credit not granted for more than one of CMP SCI 3000, and MATH 3000.

**MATH 3100 Problem Solving In Mathematics: 1 semester hour**

Prerequisite: MATH 2000 Course will train students to solve and write solutions to challenging mathematical problems, like those found in competitive exams like the Putnam Exam.

**MATH 3520 Structure Of Mathematical Systems III: 3 semester hours**

Prerequisite: MATH 2510 Together with MATH 1150 and MATH 2510, this course teaches the mathematics necessary for middle school mathematics certification. Topics from MATH 1150 and MATH 2510 are continued. Other topics include geometric constructions, similarity, coordinate geometry, normal distribution, combinatorics, and trigonometry.

**MATH 4010 Financial Mathematics I: 3 semester hours**

Prerequisites: MATH 1900 or MATH 1100, and MATH 1320 or LOG OM 3300 (or equivalents). An introduction to the theory of interest, annuities (certain), annuities with differing pay periods, amortization schedules and sinking funds.

**MATH 4020 Financial Mathematics II: 3 semester hours**

Prerequisites: MATH 4010. Premium-discount formula for bonds, bond amortization, term structure of interest rates and pricing theory for options.

**MATH 4030 Applied Mathematics I: 3 semester hours**

Prerequisite: MATH 2020 and MATH 2450. Topics chosen from Fourier series, special functions, partial differential equations, and boundary value problems.

**MATH 4060 Applied Differential Equations: 3 semester hours**

Prerequisites: MATH 2020 and MATH 2450 The study of ordinary differential equations and partial differential equations is continued with applications in such areas as physics, engineering and biology.

**MATH 4100 Real Analysis I: 3 semester hours**

Prerequisites: MATH 2000 and MATH 3000. Introduction to real analysis in one variable. Topics include the real number system, limits, continuity, differentiability, and sequences and series of functions.

**MATH 4160 Complex Analysis I: 3 semester hours**

Prerequisites: MATH 2020 or both MATH 3000 and MATH 2000. Complex numbers and their geometrical representation, point sets, analytic functions of a complex variable, complex integration, Taylor and Laurent series, residue theorem, conformal mapping.

**MATH 4200 Mathematical Statistics I: 3 semester hours**

Prerequisites: MATH 1320 and MATH 2000. Introduction to the theory of probability and statistics using concepts and methods of calculus.

**MATH 4210 Mathematical Statistics II: 3 semester hours**

Prerequisites: MATH 4200. Continuation of MATH 4200. Sampling distributions, estimation theory, properties of estimators, hypothesis testing, Neyman-Pearson Theorem, likelihood ratio tests, introduction of analysis of variance and linear models. Basics of some nonparametric procedures.

**MATH 4230 Numerical Analysis I: 3 semester hours**

Prerequisites: MATH 2020, MATH 2450, and the ability to program in an upper-level language Solutions of equations, interpolation and approximation numerical differentiation and integration, and numerical solutions of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers.

**MATH 4260 Introduction To Stochastic Processes: 3 semester hours**

Prerequisites: MATH 4200 Basic theory and applications of stochastic processes. Markov chains, recurrent and transient states, stationary distributions, ergodic theorem, renewal processes, discrete martingales and stationary processes.

**MATH 4350 Theory Of Numbers: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of instructor Properties of integers, multiplicative functions, congruences, primitive roots, and quadratic residues.

**MATH 4390 Topics In Probability And Statistics: 3 semester hours**

Prerequisites: Consent of Instructor. A seminar on special topics in probability and statistics to be determined by the interests of the instructor. May be repeated for credit provided different topics are studied.

**MATH 4400 Introduction To Abstract Algebra I: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department Introduction to groups, rings, and fields, with emphasis on groups and rings.

**MATH 4450 Linear Algebra: 3 semester hours**

Prerequisites: MATH 3000, MATH 2000 and MATH 2450. Topics selected from vector spaces, bases, linear transformations, matrices, canonical forms, eigenvalues, hermitian and unitary matrices, inner product spaces, and quadratic forms.

**MATH 4500 Special Readings: 1-10 semester hours**

Prerequisites: MATH 3000, MATH 2000 and consent of instructor.

**MATH 4550 Combinatorics: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000. Advanced counting methods are introduced, including the use of generating functions for the solution of recurrences and difference equations. Additional topics may include: graphs and trees, combinatorial designs, combinatorial games, error-correcting codes, and finite-state machines.

**MATH 4660 Foundations Of Geometry: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department A development of portions of Euclidean geometry from a selected set of axioms, including a discussion of consistency, independence, categoricity, and completeness of the axioms.

**MATH 4670 Introduction To Non-Euclidean Geometry: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department A summary of the history of the non-Euclidean geometries and a study of hyperbolic plane geometry.



**MATH 4800 Introduction To Topology: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department  
A study of topological spaces, including the concepts of limit, continuity, connectedness, compactness, etc. Special emphasis placed on, and examples taken from, the space of real numbers.

**MATH 4890 Topics In Mathematics: 3 semester hours**

Prerequisite: Consent of Instructor.

**MATH 5060 Computational Harmonic Analysis: 3 semester hours**

Prerequisites: MATH 4030, MATH 4100 and MATH 4450 The course covers the basics of Fourier analysis and wavelet analysis. Topics include Fourier transforms and series, discrete Fourier transform, discrete cosine transform and their fast computational schemes, fast wavelet transform, and the lifting scheme. Additional topics include industrial standards for image compression and several aspects of signal processing.

**MATH 5100 Real Analysis II: 3 semester hours**

Prerequisites: MATH 4100 Introduction to measure and integration. Topics include the Riemann-Stieltjes integral, Lebesgue measure, measurable functions, the Lebesgue integral, Radon-Nikodym and Fubini theorems and the basics of  $L_p$ -spaces.

**MATH 5110 Differentiable Manifolds: 3 semester hours**

Prerequisites: MATH 4100, MATH 4450, and MATH 4800. An introduction to smooth manifolds and maps. Topics will include the Implicit Function Theorem, Sard's Theorem, transversality, intersection and degree theory, differential forms and integration on manifolds.

**MATH 5140 Set Theory And Metric Spaces: 3 semester hours**

Prerequisites: MATH 4100 or consent of instructor. Naive set theory, cardinal arithmetic, ordinal numbers, the axiom of choice and equivalents, metric spaces, convergence, continuity, compactness, contraction principals and applications. Construction of completions and examples like real numbers and  $p$ -adic numbers. Other topics could include the Stone-Weierstrass theorem and metrizable theorems.

**MATH 5160 Complex Analysis II: 3 semester hours**

Prerequisites: MATH 4160 and either MATH 4100 or MATH 4800. A second course in complex analysis, emphasizing the theory of analytic functions, and including various topics like the Riemann mapping theorem, normal families, analytic continuation, representations of analytic functions, and elliptic functions.

**MATH 5320 Applied Statistics: 3 semester hours**

Prerequisites: MATH 4210 or consent of instructor The course studies classical and recently developed statistical procedures selected from areas including analysis of variance, multivariate analysis, nonparametric or semi-parametric methods and generalized linear models. Emphasis is on application of procedures, including the rationale underlying choice of procedures.

**MATH 5500 Directed Readings: 1-6 semester hours**

Prerequisite: Consent of instructor. Independent readings at an advanced level.

**MATH 5550 Topics In Advanced Math For The Teacher: 3 semester hours**

Prerequisite: Consent of Instructor. This course will look at various topics in Algebra, Analysis, and Geometry that will deepen a teacher's understanding of the Mathematics of the precollegiate curriculum. It can be taken more than once for credit.

**MATH 5600 Topics In Computation: 3 semester hours**

Prerequisite: consent of instructor. The course will cover various advanced topics in computation, and can be taken more than once for credit. Examples of such topics are: computer graphics, computer architecture, theories of language, analysis of operating systems, numerical geometry and computer aided design, etc.

**MATH 5700 Topics In Applied Mathematics: 3 semester hours**

Prerequisite: consent of instructor. The course will cover various advanced topics on applied mathematics, and can be taken more than once for credit. Examples of such topics are: fast transforms, digital filters, etc.

**MATH 5710 Topics In Analysis: 3 semester hours**

Prerequisites: MATH 5100 or consent of instructor. Topics selected from the areas of Fourier analysis, harmonic analysis, functional analysis, special functions, generalized functions, and partial differential equations. May be taken more than once for credit with consent of department.

**MATH 5820 Topics In Algebra: 3 semester hours**

Prerequisite: Consent of instructor. Topics selected from the theory of groups, rings, fields, algebras and other algebraic systems. May be taken more than once for credit with consent of department.

**MATH 6900 Masters Thesis: 1-6 semester hours**

Prerequisite: Consent of instructor. Thesis work under the supervision of a faculty member. The course is designed for those students intending to present a thesis as part of their M.A. program. Students who do not write a thesis cannot apply MATH 6900 to a degree.

**MATH 7990 Ph.D. Dissertation Research: 1-9 semester hours**

Prerequisites: Completion of Comprehensive. May be taken for no more than nine hours.

## Courses

**MATH 0005 Intermediate Algebra: 3 semester hours**

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Preparatory material for college level mathematics courses. Covers systems of linear equations and inequalities, polynomials, rational expressions, exponents, quadratic equations, graphing linear and quadratic functions. This course carries no credit towards any baccalaureate degree.

**MATH 1020 Contemporary Mathematics: 3 semester hours**

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Presents methods of problem solving, centering on problems and questions which arise naturally in everyday life. May include aspects of algebra and geometry, the mathematics of finance, probability and statistics, exponential growth, and other topics chosen from traditional and contemporary mathematics which do not employ the calculus. May be taken to meet the mathematical proficiency requirement, but may not be used as a prerequisite for other mathematics courses. Designed for students who do not plan to take calculus. Credit will not be granted for MATH 1020 if credit has been granted for MATH 1310, MATH 1800, MATH 1100, MATH 1102, or MATH 1105. Concurrent enrollment in MATH 1020 and any of these courses is not permitted.

**MATH 1021 Choice and Chance: 3 semester hours**

Same as PHIL 1021. Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. This course provides an introduction to inductive logic and the theory of probability in an organized and systematic way, so as to give students tools for more effective decision-making. We will introduce the probability calculus, basic concepts of utility theory, decision theory and different approaches to understanding probability. This course is designed to be accessible to students of all levels. Satisfies mathematics proficiency.

**MATH 1025 Geometry in the Real World: 3 semester hours**

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Presents topics in geometry designed to enrich the student's understanding of mathematics. Geometry as it applies to the physical world and such fields as art, music, nature, motion, architecture and city planning will be examined. This course is designed to be accessible to students of all levels. Satisfies mathematics proficiency.

**MATH 1030 College Algebra: 3 semester hours**

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Topics in algebra and probability, polynomial functions, the binomial theorem, logarithms, exponentials, and solutions to systems of equations.

**MATH 1035 Trigonometry: 2 semester hours**

Prerequisite: MATH 1030 or MATH 1040, or concurrent registration in either of these two courses, or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. A study of the trigonometric and inverse trigonometric functions with emphasis on trigonometric identities and equations.

**MATH 1040 College Algebra for Science and Engineering: 4 semester hours**

Prerequisites: A satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Topics in this course include factoring, simplifying rational functions, functions and their graphs, solving linear and nonlinear equations, polynomial functions, inverse functions, the binomial theorem, logarithms, exponentials, solutions to systems of equations using matrices, solutions to nonlinear systems of equations, and sequences.

**MATH 1100 Basic Calculus: 3 semester hours**

Prerequisite: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Placement Examination, obtained at most one year prior to enrollment in this course. Introduction to plane analytic geometry and basic differential and integral calculus with applications to various areas. No credit for Mathematics majors. Credit not granted for both MATH 1800 and MATH 1100.

**MATH 1102 Finite Mathematics: 3 semester hours**

Prerequisites: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. Introductory logic and set theory, partitions and counting problems, elementary probability theory, stochastic processes, Markov chains, vectors and matrices, linear programming, and game theory.

**MATH 1105 Basic Probability And Statistics: 3 semester hours**

Prerequisites: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. An introduction to probability and statistics. Topics include the concept of probability and its properties, descriptive statistics, discrete and continuous random variables, expected value, distribution functions, the central limit theorem, random sampling and sampling distributions. Credit not granted for more than one of MATH 1310, MATH 1320, and MATH 1105.

**MATH 1150 Structure Of Mathematical Systems I: 3 semester hours**

Prerequisites: 45 hours of college credit and a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course OR successful completion of MATH 1030 no more than 2 years prior to enrollment in this course. A study of sets, relations, functions, whole numbers; the integers and their properties, and the rational and real number systems.

**MATH 1310 Elementary Statistical Methods: 3 semester hours**

Prerequisite: MATH 1030 or MATH 1040 or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. An introduction to the basic tools and elementary methods of statistics, such as testing of hypotheses, analysis of variance, method of least squares, and time series. A student may not receive credit for more than one of MATH 1310, MATH 1320, and MATH 1105.

**MATH 1320 Applied Statistics I: 3 semester hours**

Prerequisites: MATH 1800 or MATH 1100. This is the first course of a one-year sequence in introductory probability and statistics. It provides a comprehensive introduction to those models and methods which are most likely to be encountered by students in their careers in applied mathematics and the sciences. Topics include descriptive statistics, basics of probability theory, random variables and their distributions, sampling distributions, confidence intervals, and hypothesis testing for population means and population proportions. A student may not receive credit for more than one of MATH 1310, MATH 1320 and MATH 1105.

**MATH 1800 Analytic Geometry And Calculus I: 5 semester hours**

Prerequisites: MATH 1030 and MATH 1035, or MATH 1040 and MATH 1035, or a satisfactory score on the UMSL ALEKS Math Placement Examination, obtained at most one year prior to enrollment in this course. This course provides an introduction to differential and integral calculus. Topics include limits, derivatives, related rates, Newton's method, the Mean-Value Theorem, Max-Min problems, the integral, the Fundamental Theorem of Integral Calculus, areas, volumes, and average values.

**MATH 1900 Analytic Geometry And Calculus II: 5 semester hours**

Prerequisite: MATH 1800. Topics include conic sections, rotation of axes, polar coordinates, exponential and logarithmic functions, inverse (trigonometric) functions, integration techniques, applications of the integral (including mass, moments, arc length, and hydrostatic pressure), parametric equations, infinite series, power and Taylor series.

**MATH 2000 Analytic Geometry And Calculus III: 5 semester hours**

Prerequisite: MATH 1900. Topics include vectors, cylindrical and spherical coordinates, vector-valued functions, arc length and curvature, functions of several variables, partial and directional derivatives, gradients, extrema, Lagrange multipliers, multiple integrals, change of variables, surface area, vector fields, Stokes' Theorem.

**MATH 2020 Introduction To Differential Equations: 3 semester hours**

Prerequisite: MATH 2000. Topics will be chosen from: linear differential equations, equations with constant coefficients, laplace transforms, power series solutions, systems of ordinary differential equations.

**MATH 2450 Elementary Linear Algebra: 3 semester hours**

Prerequisite: MATH 1100 or MATH 1900. An introduction to linear algebra. Topics will include complex numbers, geometric vectors in two and three dimensions and their linear transformations, the algebra of matrices, determinants, solutions of systems of equations, eigenvalues and eigenvectors.

**MATH 2510 Structure Of Mathematical Systems II: 3 semester hours**

Prerequisite: MATH 1150. An introduction to probability and statistics. An intuitive study of elementary geometry. Introduction to the deductive theory of geometry and to coordinate geometry.

**MATH 3000 Discrete Structures: 3 semester hours**

Prerequisites: MATH 1900 or MATH 1100, and CMP SCI 1250 or equivalent. Treats fundamental ideas in discrete structures and serves as a foundation for subsequent courses in both Mathematics and Computer Science. Provides an introduction to techniques of mathematical reasoning with examples derived from computer science. Topics include logic, set algebra, equivalence relations and partitions, functions, mathematical induction, elementary number theory, cardinality, recurrence relations, basic combinatorial methods, trees and graphs. Credit not granted for more than one of CMP SCI 3000, and MATH 3000.

**MATH 3100 Problem Solving In Mathematics: 1 semester hour**

Prerequisite: MATH 2000 Course will train students to solve and write solutions to challenging mathematical problems, like those found in competitive exams like the Putnam Exam.

**MATH 3520 Structure Of Mathematical Systems III: 3 semester hours**

Prerequisite: MATH 2510 Together with MATH 1150 and MATH 2510, this course teaches the mathematics necessary for middle school mathematics certification. Topics from MATH 1150 and MATH 2510 are continued. Other topics include geometric constructions, similarity, coordinate geometry, normal distribution, combinatorics, and trigonometry.

**MATH 4010 Financial Mathematics I: 3 semester hours**

Prerequisites: MATH 1900 or MATH 1100, and MATH 1320 or LOG OM 3300 (or equivalents). An introduction to the theory of interest, annuities (certain), annuities with differing pay periods, amortization schedules and sinking funds.

**MATH 4020 Financial Mathematics II: 3 semester hours**

Prerequisites: MATH 4010. Premium-discount formula for bonds, bond amortization, term structure of interest rates and pricing theory for options.

**MATH 4030 Applied Mathematics I: 3 semester hours**

Prerequisite: MATH 2020 and MATH 2450. Topics chosen from Fourier series, special functions, partial differential equations, and boundary value problems.

**MATH 4060 Applied Differential Equations: 3 semester hours**

Prerequisites: MATH 2020 and MATH 2450 The study of ordinary differential equations and partial differential equations is continued with applications in such areas as physics, engineering and biology.

**MATH 4100 Real Analysis I: 3 semester hours**

Prerequisites: MATH 2000 and MATH 3000. Introduction to real analysis in one variable. Topics include the real number system, limits, continuity, differentiability, and sequences and series of functions.

**MATH 4160 Complex Analysis I: 3 semester hours**

Prerequisites: MATH 2020 or both MATH 3000 and MATH 2000. Complex numbers and their geometrical representation, point sets, analytic functions of a complex variable, complex integration, Taylor and Laurent series, residue theorem, conformal mapping.

**MATH 4200 Mathematical Statistics I: 3 semester hours**

Prerequisites: MATH 1320 and MATH 2000. Introduction to the theory of probability and statistics using concepts and methods of calculus.

**MATH 4210 Mathematical Statistics II: 3 semester hours**

Prerequisites: MATH 4200. Continuation of MATH 4200. Sampling distributions, estimation theory, properties of estimators, hypothesis testing, Neyman-Pearson Theorem, likelihood ratio tests, introduction of analysis of variance and linear models. Basics of some nonparametric procedures.

**MATH 4230 Numerical Analysis I: 3 semester hours**

Prerequisites: MATH 2020, MATH 2450, and the ability to program in an upper-level language Solutions of equations, interpolation and approximation numerical differentiation and integration, and numerical solutions of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers.

**MATH 4260 Introduction To Stochastic Processes: 3 semester hours**

Prerequisites: MATH 4200 Basic theory and applications of stochastic processes. Markov chains, recurrent and transient states, stationary distributions, ergodic theorem, renewal processes, discrete martingales and stationary processes.

**MATH 4350 Theory Of Numbers: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of instructor Properties of integers, multiplicative functions, congruences, primitive roots, and quadratic residues.

**MATH 4390 Topics In Probability And Statistics: 3 semester hours**

Prerequisites: Consent of Instructor. A seminar on special topics in probability and statistics to be determined by the interests of the instructor. May be repeated for credit provided different topics are studied.

**MATH 4400 Introduction To Abstract Algebra I: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department Introduction to groups, rings, and fields, with emphasis on groups and rings.

**MATH 4450 Linear Algebra: 3 semester hours**

Prerequisites: MATH 3000, MATH 2000 and MATH 2450. Topics selected from vector spaces, bases, linear transformations, matrices, canonical forms, eigenvalues, hermitian and unitary matrices, inner product spaces, and quadratic forms.

**MATH 4500 Special Readings: 1-10 semester hours**

Prerequisites: MATH 3000, MATH 2000 and consent of instructor.

**MATH 4550 Combinatorics: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000. Advanced counting methods are introduced, including the use of generating functions for the solution of recurrences and difference equations. Additional topics may include: graphs and trees, combinatorial designs, combinatorial games, error-correcting codes, and finite-state machines.

**MATH 4660 Foundations Of Geometry: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department A development of portions of Euclidean geometry from a selected set of axioms, including a discussion of consistency, independence, categoricity, and completeness of the axioms.

**MATH 4670 Introduction To Non-Euclidean Geometry: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department A summary of the history of the non-Euclidean geometries and a study of hyperbolic plane geometry.

**MATH 4800 Introduction To Topology: 3 semester hours**

Prerequisites: MATH 3000 and MATH 2000, or consent of the department  
A study of topological spaces, including the concepts of limit, continuity, connectedness, compactness, etc. Special emphasis placed on, and examples taken from, the space of real numbers.

**MATH 4890 Topics In Mathematics: 3 semester hours**

Prerequisite: Consent of Instructor.

**MATH 5060 Computational Harmonic Analysis: 3 semester hours**

Prerequisites: MATH 4030, MATH 4100 and MATH 4450 The course covers the basics of Fourier analysis and wavelet analysis. Topics include Fourier transforms and series, discrete Fourier transform, discrete cosine transform and their fast computational schemes, fast wavelet transform, and the lifting scheme. Additional topics include industrial standards for image compression and several aspects of signal processing.

**MATH 5100 Real Analysis II: 3 semester hours**

Prerequisites: MATH 4100 Introduction to measure and integration. Topics include the Riemann-Stieltjes integral, Lebesgue measure, measurable functions, the Lebesgue integral, Radon-Nikodym and Fubini theorems and the basics of  $L_p$ -spaces.

**MATH 5110 Differentiable Manifolds: 3 semester hours**

Prerequisites: MATH 4100, MATH 4450, and MATH 4800. An introduction to smooth manifolds and maps. Topics will include the Implicit Function Theorem, Sard's Theorem, transversality, intersection and degree theory, differential forms and integration on manifolds.

**MATH 5140 Set Theory And Metric Spaces: 3 semester hours**

Prerequisites: MATH 4100 or consent of instructor. Naive set theory, cardinal arithmetic, ordinal numbers, the axiom of choice and equivalents, metric spaces, convergence, continuity, compactness, contraction principals and applications. Construction of completions and examples like real numbers and  $p$ -adic numbers. Other topics could include the Stone-Weierstrass theorem and metrization theorems.

**MATH 5160 Complex Analysis II: 3 semester hours**

Prerequisites: MATH 4160 and either MATH 4100 or MATH 4800. A second course in complex analysis, emphasizing the theory of analytic functions, and including various topics like the Riemann mapping theorem, normal families, analytic continuation, representations of analytic functions, and elliptic functions.

**MATH 5320 Applied Statistics: 3 semester hours**

Prerequisites: MATH 4210 or consent of instructor The course studies classical and recently developed statistical procedures selected from areas including analysis of variance, multivariate analysis, nonparametric or semi-parametric methods and generalized linear models. Emphasis is on application of procedures, including the rationale underlying choice of procedures.

**MATH 5500 Directed Readings: 1-6 semester hours**

Prerequisite: Consent of instructor. Independent readings at an advanced level.

**MATH 5550 Topics In Advanced Math For The Teacher: 3 semester hours**

Prerequisite: Consent of Instructor. This course will look at various topics in Algebra, Analysis, and Geometry that will deepen a teacher's understanding of the Mathematics of the precollegiate curriculum. It can be taken more than once for credit.

**MATH 5600 Topics In Computation: 3 semester hours**

Prerequisite: consent of instructor. The course will cover various advanced topics in computation, and can be taken more than once for credit. Examples of such topics are: computer graphics, computer architecture, theories of language, analysis of operating systems, numerical geometry and computer aided design, etc.

**MATH 5700 Topics In Applied Mathematics: 3 semester hours**

Prerequisite: consent of instructor. The course will cover various advanced topics on applied mathematics, and can be taken more than once for credit. Examples of such topics are: fast transforms, digital filters, etc.

**MATH 5710 Topics In Analysis: 3 semester hours**

Prerequisites: MATH 5100 or consent of instructor. Topics selected from the areas of Fourier analysis, harmonic analysis, functional analysis, special functions, generalized functions, and partial differential equations. May be taken more than once for credit with consent of department.

**MATH 5820 Topics In Algebra: 3 semester hours**

Prerequisite: Consent of instructor. Topics selected from the theory of groups, rings, fields, algebras and other algebraic systems. May be taken more than once for credit with consent of department.

**MATH 6900 Masters Thesis: 1-6 semester hours**

Prerequisite: Consent of instructor. Thesis work under the supervision of a faculty member. The course is designed for those students intending to present a thesis as part of their M.A. program. Students who do not write a thesis cannot apply MATH 6900 to a degree.

**MATH 7990 Ph.D. Dissertation Research: 1-9 semester hours**

Prerequisites: Completion of Comprehensive. May be taken for no more than nine hours.

## Media Studies

### Courses

**MEDIA ST 1050 Introduction To Media Studies: 3 semester hours**

Introduction to print and electronic media, as well as the Internet. Emphasis on history, theory, and role of the mass media as cultural institutions. The course also examines the Federal Communications Commission (FCC) and issues of ownership and media conglomeration.

**MEDIA ST 1055 Introduction to Social Media: 3 semester hours**

Introduction to the creation and rise of social media/networks. Course will cover the impact and influence of dominant sites along with individual, group, political, and commercial behavior changes. The course will examine how social media platforms can be integrated with other current tools. Issues such as privacy, censorship, cyber-bullying, and the use of social media for anti-social/terrorist activities will be explored.

**MEDIA ST 1060 Introduction to World Cinema: 3 semester hours**

An introduction to the history, rhetoric, and aesthetics of world cinema. International film theory and criticism will be studied as well as major genres, authors, and artists.

**MEDIA ST 1065 Internet Media: 3 semester hours**

This studio course will cover the principles of media design as they apply to the interactive world of the web. Sensitivity to the visual elements of online interfaces will be developed through analysis of the changing nature of communication technologies. Students will conceive and create their own web-based media projects.



**MEDIA ST 1070 Introduction To Cinema: 3 semester hours**

An overview of American cinema from the early beginnings of D.W. Griffith and his contemporaries to the present day. Course will discuss both the Hollywood studio system and today's independent movement. Also covered: genre, film theory, criticism, and aesthetics.

**MEDIA ST 1100 Introduction To Advertising: 3 semester hours**

An introduction to the history, rhetoric, and aesthetics of Advertising. A basic understanding of industry issues and key areas such as account management, research, strategy, creative, media, and production.

**MEDIA ST 1110 Introduction To Radio And Television Broadcasting: 3 semester hours**

An introduction to broadcasting, including the areas of history, government regulations, station operation, and program development.

**MEDIA ST 1194 Practicum In Journalism: 1-3 semester hours**

Prerequisites: Consent of Instructor. Open to Theatre, Dance, and Media Studies majors or minors only. Not open to students who have any delayed grades outstanding. Practical work in the journalism program or the student newspaper, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 1196 Practicum In Radio: 1-3 semester hours**

Prerequisites: MEDIA ST 2114 or Consent of Instructor. Open to Theatre, Dance and Media Studies majors or minors only. Not open to students who have any delayed grades outstanding. Practical work at the campus radio station, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 1197 Practicum In Television/Film: 1-3 semester hours**

Prerequisites: MEDIA ST 2113 or Consent of Instructor; open to Theatre, Dance and Media Studies majors only; not open to student who have delayed grades outstanding. Practical work at one of the campus television studios or for the UM-St. Louis Television/Film Club, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 1198 Practicum In Media Studies: 1-3 semester hours**

Prerequisites: Consent of Instructor. Open to Theatre, Dance and Media Studies majors or minors only; not open to students who have delayed grades outstanding. Practical work in media studies, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 1500 Entertainment Economics: The Movie Industry: 3 semester hours**

Same as ECON 1500. This survey course examines the interrelationships between economics and the movie industry. It explores the impact of economic factors on the production, distribution and exhibition of movies, focusing on the rise and fall of the studio system, role of technological change in the evolution of cinematography and the movie marketplace, financing and market segmentation, globalization and changing industrial structure within which films are produced. To the extent that movies reflect and contribute to popular economic perspectives, this course also evaluates the soundness of the movie industry's depiction of a variety of economic doctrines. Classes will consist of lecture, discussion, and brief film screenings.

**MEDIA ST 2080 Advertising Copywriting: 3 semester hours**

Same as ENGL 2080. To give students a hands-on approach for writing advertising material for print and broadcast against tight deadlines in a professional setting.

**MEDIA ST 2090 Creative Advertising: 3 semester hours**

Prerequisites: MEDIA ST 1100 or consent of instructor. Explores the fundamentals of the creative process by discussing selling messages, marketplace diversity, research, strategy, layouts, and the creative brief. Emphasis on creative campaigns for radio, television, direct marketing, and the Internet.

**MEDIA ST 2095 Practicum In Advertising: 1-3 semester hours**

Prerequisites: MEDIA ST 2080 and MEDIA ST 2090 or consent of instructor. Open to Theatre, Dance, and Media Studies majors and minors only. Overall GPA of at least 2.0 or better. Not open to students who have any delayed grades outstanding. Practical work in the advertising program, the student newspaper, or an on-campus agency, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 2105 Advertising For The Arts: 3 semester hours**

Advertising for the Arts examines the theories and design principles needed to produce print and other forms of advertising to stimulate awareness of and community participation in a broad range of arts activities, including, but not limited to music, drama, dance, and the visual arts.

**MEDIA ST 2113 Media Production I: 3 semester hours**

Study of the basic skills needed to create media packages. The class will provide students with practical experience in camera operation, directing, producing, switching, audio mixing, and lighting, as well as basic non-linear editing. Lab arranged.

**MEDIA ST 2114 Radio Production I: 3 semester hours**

Prerequisites: MEDIA ST 1110. Theory and practice in the creation of radio programs. Laboratory experience included.

**MEDIA ST 2210 Video Production I: 3 semester hours**

Prerequisites: MEDIA ST 2113 or Consent of Instructor. Study of the basic theories of remote video production. The areas of producing and directing in the field will be examined and practiced. The course will focus on technical and aesthetic aspects of cinematic production. Lab arranged.

**MEDIA ST 2211 Introduction To Digital Multimedia Production: 3 semester hours**

Students will explore different state-of-the-art digital multimedia applications, including audio, video, and computer generated graphics, that are presently used in television, radio, CD, DVD, and online presentation. Current media related software such as QuickTime, Window Media, and Flash multimedia creation will be demonstrated and utilized to develop skill sets in those areas.

**MEDIA ST 2212 Broadcast Writing And Reporting: 3 semester hours**

Prerequisites: MEDIA ST 1110 or consent of instructor. Elementary principles and practice of writing for radio and television in varied program formats, emphasis on preparation of written materials for news and public affairs presentation. Lecture and lab.

**MEDIA ST 2214 Screenwriting: 3 semester hours**

Prerequisites: MEDIA ST 1070 or consent of the department. Writing fiction film narratives with particular emphasis on plot structure, theme, and character development.

**MEDIA ST 2220 Promotion Essentials: 3 semester hours**

Prerequisites: MEDIA ST 1100 or consent of instructor. Explains the difference between advertising and sales promotion and why companies use sales promotion. Understand how companies utilize the different sales promotion techniques in each medium. Emphasis on the key sales promotion tools used by companies.

**MEDIA ST 2222 Convergence and Digital Media: 3 semester hours**

The development of new media technologies results in convergence, in which the lines between or among formerly separate media are blurred. Convergence and Digital Media focuses on the emerging media forms which result, including such new options as mobile apps for audio and video, blogs, and social media, as well as new tools for media creation for personal, social, business, and organizational expression. The course will examine emerging media technical options, effective message strategies in the context of emerging media, and basic principles associated with the practical use of tools for the creation of emerging media content. Both a lecture/discussion format and a hands-on project approach will be utilized.

**MEDIA ST 2228 Public Relations Writing: 3 semester hours**

Prerequisites: ENGL 3140 or equivalent. An introduction to the process of planning, producing, and evaluating written public relations messages. Writing assignments include media releases, letters, memos, position papers, background papers, brochures, and reports and proposals.

**MEDIA ST 2235 Media Theory: 3 semester hours**

Prerequisite: MEDIA ST 1050. Theory based explanation of the relationship between mass media and society. Topics will include agenda-setting, violence and television, and other current issues from a critical perspective.

**MEDIA ST 2271 History Of American Film: 3 semester hours**

Prerequisites: MEDIA ST 1070 or consent of the instructor. History of American film from the late nineteenth century to the present.

**MEDIA ST 2272 Contemporary Cinema: 3 semester hours**

Prerequisites: MEDIA ST 1070 or Consent of Instructor. History of World Cinema from the 1940s to the present day.

**MEDIA ST 2273 Survey of Film Genres: 3 semester hours**

Prerequisite: MEDIA ST 1060 or MEDIA ST 1070, or consent of instructor. This course explores the historical and aesthetic significance of film varieties. Analysis of genres may include the western, horror, science fiction, musical, detective, war, romantic comedy, and other films by type.

**MEDIA ST 2274 African-American Cinema: 3 semester hours**

Prerequisites: MEDIA ST 1070 or equivalent. Impact of cinema and the entertainment industry on the social perceptions of African-Americans and on African-American culture. The history of African-American films from Oscar Micheaux in the 1920's through 1970's Blaxploitation to present directors and producers will be examined. African-American experiences and roles in films will also be discussed.

**MEDIA ST 2275 Introduction To International Cinema: 3 semester hours**

Prerequisites: MEDIA ST 1070 with a grade of C or better. Course provides an understanding of the art and history of international cinema; and helps to better understand film and filmmakers' intentions as well as the culture in which the film was produced. Films from Europe, Asia, South America, Africa and Australia will be examined. The artistic, technical, historical and social significance of these films, as well as their impact upon American cinema, will also be studied.

**MEDIA ST 2500 Introduction To Comparative International Media Systems: 3 semester hours**

This course introduces students to various media systems and theories around the world. It examines similarities and differences in media history, structures, and regulatory processes of developing countries, focusing on the dominant culture(s) of non-western regions. It also provides a framework for understanding and analyzing the cultural differences among global media systems in Africa, the Middle East, and Asia. In addition, the course examines aboriginal and other development media. The course fulfills the cultural diversity requirement.

**MEDIA ST 2510 Fundamentals of Mobile Design: 3 semester hours**

Building on core web languages and programming standards, this course introduces central concepts, techniques, methodologies, and best practices in the creation and deployment of mobile websites, applications, and user interface.

**MEDIA ST 3025 Current Issues in Advertising: 3 semester hours**

Prerequisites: MEDIA ST 1100, junior standing or consent of instructor. Using recent topics in advertising, students will analyze, evaluate, and critique current topics as well as prepare current campaigns for open discussion and presentation.

**MEDIA ST 3030 Advertising and Social Media: 3 semester hours**

Prerequisite: MEDIA ST 2090. Examination of advertising online with such topics as: social communities, friendvertising, virtual worlds, brand building, media democracy, online opinions, gaming, and how companies can leverage their brand using two-way interaction.

**MEDIA ST 3035 Advanced Media Theory: 3 semester hours**

Prerequisites: MEDIA ST 2235 or consent of instructor. This course examines major schools, ownership and theorists in mass media fields. The writings of the Frankfurt School, Marshall McLuhan, Ben Bagdikian, and others will be examined.

**MEDIA ST 3070 International Cinema: 3 semester hours**

Prerequisites: MEDIA ST 1070 and MEDIA ST 2275. Understanding international film, its properties, methods, aesthetics, and its impact on culture and society.

**MEDIA ST 3113 Media Production II: 3 semester hours**

Prerequisites: MEDIA ST 2113. Advanced study of the skills needed to create media packages. The class will provide students with a continuation of practical training in camera operations, directing, producing, switching, audio mixing, and lighting, as well as more advanced post production techniques. Lab arranged.

**MEDIA ST 3150 Feature Writing: 3 semester hours**

Same as ENGL 3150. Prerequisites: ENGL 1100 or equivalent. Study of freelance and staff-written magazine or newspaper feature articles. Emphasis on relationship between types of publication and article content, research methods, and writing style. Frequent short assignments - journal entries, interviews, library projects, article critiques, and market reports - lead to production of full-length feature articles. May not be taken on the satisfactory/unsatisfactory option. The course counts toward the English Certificate in Writing.

**MEDIA ST 3180 Reporting: 3 semester hours**

Same as ENGL 3180. Prerequisites: ENGL 3140 or equivalent. Theory and practice of reporting news for publication in the print media. Includes one classroom session and one field assignment weekly. Stories must be filed within deadline limit. Writing emphasis is on clarity, conciseness, and accuracy. The course counts toward the English certificate in Writing.

**MEDIA ST 3214 News Writing: 3 semester hours**

Same as ENGL 3140. Prerequisites: ENGL 1100 or equivalent. An introduction to news writing and reporting. Course covers basic components of news reporting principles, and news writing style and structure. Daily writing assignments include coverage of speeches, meetings and interviews, accidents, deaths, courts, sports, consumer affairs, and government. Emphasis on clarity, accuracy, and speed. The course counts toward the English Certificate in Writing. THIS COURSE WAS PREVIOUSLY COMM 3214 PRIOR TO AUGUST 2007.

**MEDIA ST 3310 Video Production II: 3 semester hours**

Prerequisite: MEDIA ST 2210. Study of advanced theories of media production. Refinement of production principles learned in MEDIA ST 2210. Exploration of complex program formats, and advanced non-linear editing techniques. Lab arranged.

**MEDIA ST 3313 Advanced Video Editing: 3 semester hours**

Prerequisites: Six (6) hours of television production. Study of advanced non-linear editing techniques, animation, and advanced graphics development. Exploration of state of the art editing formats. Lab arranged.

**MEDIA ST 3317 Radio And The Recording Industry: 3 semester hours**

Prerequisite: Junior standing. Historical development and current status of the recording industry, particularly as it interacts with the broadcast industry. Impact of radio and recording technology on the development of rock and other popular music.

**MEDIA ST 3334 Advertising Media Planning: 3 semester hours**

Prerequisite: MEDIA ST 1050. A hands-on study of how to determine an advertising budget, select media and develop a strategic plan.

**MEDIA ST 3338 Advertising Technique: 3 semester hours**

Same as MKTG 3738 Prerequisite: MEDIA ST 1100 or MKTG 3700 or consent of instructor. Techniques for creating advertising messages and campaigns to reach target audiences. Focus on the process of persuasion, importance of advertising in modern economics, rationale for company advertisement, evaluation of advertising effectiveness, and assessment of advertising myths and truths. Practical application of messages and campaigns will be stressed.

**MEDIA ST 3350 Mass Media History: 3 semester hours**

Prerequisites: MEDIA ST 1050 or MEDIA ST 1110. Examination of the social, economic, and political factors contributing to the development of American mass media. Emphasis on significant personalities who helped shape its course; analysis of select critical works.

**MEDIA ST 3355 Media Law And Regulation: 3 semester hours**

Prerequisites: MEDIA ST 1050 or MEDIA ST 1110. Discussion of laws affecting the mass media. Exploration of problems and issues in legal regulation of media content, ownership, access, and accountability. Discussion of industry self-regulation and the influence of citizens' organizations.

**MEDIA ST 3356 Global Media Systems And Trends: 3 semester hours**

This course will survey major theories, global trends, and key stakeholders in the field of mass and multi-media. Designed to foster substantive comprehension of issues raised by transnational media corporations and their impact on other cultures and languages. Details about the BBC, CNN, MTV, Euro Disney, and the internet will be major components of this class.

**MEDIA ST 3357 Media Convergence: 3 semester hours**

This course will provide students with an overview of how computer technologies, telecommunication networks, and digital media are transforming contemporary culture and everyday life. Through hands-on projects on topics of social relevance, students will explore multiple platforms for reaching a variety of audiences. The course will also deal with policy issues such as regulation and competition.

**MEDIA ST 3362 Storytelling: 1-3 semester hours**

Prerequisites: Junior standing or consent of instructor. Course gives an overview of the history of storytelling, types of tales, and appropriate uses for storytelling. The primary emphasis of the course is in developing storytelling skills through preparation, performances, and evaluation.

**MEDIA ST 3370 Documentary Film: 3 semester hours**

Prerequisite: MEDIA ST 1070 Consideration of the history, theory, and criticism of nonfiction film. Screening of representative documentary films.

**MEDIA ST 3380 Feature Film Screenwriting: 3 semester hours**

This course involves a careful examination and execution of the art and craft of feature film screenwriting from concept through completion and marketing. Students will learn aspects of proper screenplay format, developing dramatic characters, theme, and plot, with emphasis on visual storytelling.

**MEDIA ST 3394 Internship In Journalism: 3-6 semester hours**

Prerequisites: Senior standing, with at least 12 hours of course work in journalism, masscommunication; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work with an off-campus newspaper, magazine, or other news organization, supervised by a journalism professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 3395 Internship In Advertising: 3-6 semester hours**

Prerequisites: Senior standing, with at least 12 hours of course work in advertising; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have delayed grades. Practical work at an off-campus advertising agency, supervised by a professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 3396 Internship In Radio: 3-6 semester hours**

Prerequisites: Senior standing, with at least 12 hours of course work in radio, broadcasting; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus radio station, supervised by a professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 3397 Internship In Television/Film: 3-6 semester hours**

Prerequisites: Senior standing, with at least 12 hours of course work in television, film, video; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus television, film or video organization, supervised by a television, film or video professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 3398 Internship In Media Studies: 3-6 semester hours**

Prerequisites: Senior standing, with at least 12 hours of course work in television, film, video, radio, journalism, broadcasting, mass communication; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus agency, supervised by a professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 3500 Advanced Advertising Seminar: 3 semester hours**

Prerequisites: MEDIA ST 2080, MEDIA ST 2090, and MEDIA ST 3334 or consent of instructor. Students utilize skills learned in copywriting, creative advertising, and media buying and planning. Students are graded on research and customer insights, strategy, messaging and creative media plan, advertising partnerships, and measures of effectiveness. The course final includes preparing a Plan Book for a specific client and presenting at a national competition.



**MEDIA ST 3505 Field Experience in Advertising: 3 semester hours**

Prerequisites: Junior standing and completion of 3 courses from the Certificate in Advertising or consent of instructor. Through supervised travel, students will examine current ad campaigns, media placement, and effects on consumer purchasing behaviors. They will develop a broad hands-on understanding of the industry while applying principles and practices learned in the classroom. Topics include creativity with visual images and/or photographs, copywriting, accounting planning, account services, and media planning and buying. For field experience, students will visit advertising agencies, businesses that have in-house advertising departments, vendors (such as printers), museums, and other creative venues in St. Louis and/or other cities.

**MEDIA ST 3990 Directed Readings In Media Studies: 3 semester hours**

Prerequisites: consent of instructor; not open to students who have any delayed grades. Supervised independent study involving readings, conferences, papers, in one of the department's disciplines: advertising, radio, television, film, or journalism.

**MEDIA ST 4040 Special Topics in Media Studies: 1-6 semester hours**

Prerequisites: Junior, Senior, or Graduate standing and consent of instructor. Special topics with subject matter dealing with current issues, (theoretical or applied), in the discipline of media studies. Since the topics of Media Studies 4040 may change from semester to semester, the course may be repeated for up to 12 credit hours.

**MEDIA ST 4270 Feature Film Writing: 3 semester hours**

Prerequisites: MEDIA ST 1070 or consent of instructor. This course will include story conceptualization, development, and drafting a feature film script ready for production. Characterization, dramatic structure, thematic subtext, and visual storytelling will be emphasized.

**MEDIA ST 4271 Feature Film Production: 3 semester hours**

Prerequisites: MEDIA ST 2210 or consent of Instructor. This course will emphasize production techniques applicable to a wide variety of audio, film, and video-based media. Students will be involved in feature film production assignments on location in addition to regularly scheduled classes.

**MEDIA ST 4272 Feature Film Post Production: 3 semester hours**

Prerequisites: MEDIA ST 2210 or consent of instructor. This course will provide instruction in editing techniques and motivation, as well as continuity, rhythmic, graphic, and temporal editing principles. Students will work on feature film segments in addition to regularly scheduled classes.

**MEDIA ST 4392 Administration Of Co-Curricular Activities: 3 semester hours**

Prerequisites: Junior Standing or consent of instructor. A survey of skills required to administer the various co-curricular activities associated with teachers in the secondary schools, such as theatre performances and mass media centers.

**MEDIA ST 4400 Senior Project: 3-6 semester hours**

Prerequisites: Senior Status, Consent of Instructor. The capstone experience requires seniors to produce an original research project, a representative portfolio, or an intrinsic case study, which exemplifies their undergraduate study. Students will present their work to the instructor supervising the course, as well as program related-faculty. Repeatable up to 6 credit hours.

**Courses****MEDIA ST 1050 Introduction To Media Studies: 3 semester hours**

Introduction to print and electronic media, as well as the Internet. Emphasis on history, theory, and role of the mass media as cultural institutions. The course also examines the Federal Communications Commission (FCC) and issues of ownership and media conglomeration.

**MEDIA ST 1055 Introduction to Social Media: 3 semester hours**

Introduction to the creation and rise of social media/networks. Course will cover the impact and influence of dominant sites along with individual, group, political, and commercial behavior changes. The course will examine how social media platforms can be integrated with other current tools. Issues such as privacy, censorship, cyber-bullying, and the use of social media for anti-social/terrorist activities will be explored.

**MEDIA ST 1060 Introduction to World Cinema: 3 semester hours**

An introduction to the history, rhetoric, and aesthetics of world cinema. International film theory and criticism will be studied as well as major genres, authors, and artists.

**MEDIA ST 1065 Internet Media: 3 semester hours**

This studio course will cover the principles of media design as they apply to the interactive world of the web. Sensitivity to the visual elements of online interfaces will be developed through analysis of the changing nature of communication technologies. Students will conceive and create their own web-based media projects.

**MEDIA ST 1070 Introduction To Cinema: 3 semester hours**

An overview of American cinema from the early beginnings of D.W. Griffith and his contemporaries to the present day. Course will discuss both the Hollywood studio system and today's independent movement. Also covered: genre, film theory, criticism, and aesthetics.

**MEDIA ST 1100 Introduction To Advertising: 3 semester hours**

An introduction to the history, rhetoric, and aesthetics of Advertising. A basic understanding of industry issues and key areas such as account management, research, strategy, creative, media, and production.

**MEDIA ST 1110 Introduction To Radio And Television Broadcasting: 3 semester hours**

An introduction to broadcasting, including the areas of history, government regulations, station operation, and program development.

**MEDIA ST 1194 Practicum In Journalism: 1-3 semester hours**

Prerequisites: Consent of Instructor. Open to Theatre, Dance, and Media Studies majors or minors only. Not open to students who have any delayed grades outstanding. Practical work in the journalism program or the student newspaper, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 1196 Practicum In Radio: 1-3 semester hours**

Prerequisites: MEDIA ST 2114 or Consent of Instructor. Open to Theatre, Dance and Media Studies majors or minors only. Not open to students who have any delayed grades outstanding. Practical work at the campus radio station, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 1197 Practicum In Television/Film: 1-3 semester hours**

Prerequisites: MEDIA ST 2113 or Consent of Instructor; open to Theatre, Dance and Media Studies majors only; not open to student who have delayed grades outstanding. Practical work at one of the campus television studios or for the UM-St. Louis Television/Film Club, supervised by a faculty member. This course may be repeated for up to 6 credit hours.



**MEDIA ST 1198 Practicum In Media Studies: 1-3 semester hours**

Prerequisites: Consent of Instructor. Open to Theatre, Dance and Media Studies majors or minors only; not open to students who have delayed grades outstanding. Practical work in media studies, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 1500 Entertainment Economics: The Movie Industry: 3 semester hours**

Same as ECON 1500. This survey course examines the interrelationships between economics and the movie industry. It explores the impact of economic factors on the production, distribution and exhibition of movies, focusing on the rise and fall of the studio system, role of technological change in the evolution of cinematography and the movie marketplace, financing and market segmentation, globalization and changing industrial structure within which films are produced. To the extent that movies reflect and contribute to popular economic perspectives, this course also evaluates the soundness of the movie industry's depiction of a variety of economic doctrines. Classes will consist of lecture, discussion, and brief film screenings.

**MEDIA ST 2080 Advertising Copywriting: 3 semester hours**

Same as ENGL 2080. To give students a hands-on approach for writing advertising material for print and broadcast against tight deadlines in a professional setting.

**MEDIA ST 2090 Creative Advertising: 3 semester hours**

Prerequisites: MEDIA ST 1100 or consent of instructor. Explores the fundamentals of the creative process by discussing selling messages, marketplace diversity, research, strategy, layouts, and the creative brief. Emphasis on creative campaigns for radio, television, direct marketing, and the Internet.

**MEDIA ST 2095 Practicum In Advertising: 1-3 semester hours**

Prerequisites: MEDIA ST 2080 and MEDIA ST 2090 or consent of instructor. Open to Theatre, Dance, and Media Studies majors and minors only. Overall GPA of at least 2.0 or better. Not open to students who have any delayed grades outstanding. Practical work in the advertising program, the student newspaper, or an on-campus agency, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 2105 Advertising For The Arts: 3 semester hours**

Advertising for the Arts examines the theories and design principles needed to produce print and other forms of advertising to stimulate awareness of and community participation in a broad range of arts activities, including, but not limited to music, drama, dance, and the visual arts.

**MEDIA ST 2113 Media Production I: 3 semester hours**

Study of the basic skills needed to create media packages. The class will provide students with practical experience in camera operation, directing, producing, switching, audio mixing, and lighting, as well as basic non-linear editing. Lab arranged.

**MEDIA ST 2114 Radio Production I: 3 semester hours**

Prerequisites: MEDIA ST 1110. Theory and practice in the creation of radio programs. Laboratory experience included.

**MEDIA ST 2210 Video Production I: 3 semester hours**

Prerequisites: MEDIA ST 2113 or Consent of Instructor. Study of the basic theories of remote video production. The areas of producing and directing in the field will be examined and practiced. The course will focus on technical and aesthetic aspects of cinematic production. Lab arranged.

**MEDIA ST 2211 Introduction To Digital Multimedia Production: 3 semester hours**

Students will explore different state-of-the-art digital multimedia applications, including audio, video, and computer generated graphics, that are presently used in television, radio, CD, DVD, and online presentation. Current media related software such as QuickTime, Window Media, and Flash multimedia creation will be demonstrated and utilized to develop skill sets in those areas.

**MEDIA ST 2212 Broadcast Writing And Reporting: 3 semester hours**

Prerequisites: MEDIA ST 1110 or consent of instructor. Elementary principles and practice of writing for radio and television in varied program formats, emphasis on preparation of written materials for news and public affairs presentation. Lecture and lab.

**MEDIA ST 2214 Screenwriting: 3 semester hours**

Prerequisites: MEDIA ST 1070 or consent of the department. Writing fiction film narratives with particular emphasis on plot structure, theme, and character development.

**MEDIA ST 2220 Promotion Essentials: 3 semester hours**

Prerequisites: MEDIA ST 1100 or consent of instructor. Explains the difference between advertising and sales promotion and why companies use sales promotion. Understand how companies utilize the different sales promotion techniques in each medium. Emphasis on the key sales promotion tools used by companies.

**MEDIA ST 2222 Convergence and Digital Media: 3 semester hours**

The development of new media technologies results in convergence, in which the lines between or among formerly separate media are blurred. Convergence and Digital Media focuses on the emerging media forms which result, including such new options as mobile apps for audio and video, blogs, and social media, as well as new tools for media creation for personal, social, business, and organizational expression. The course will examine emerging media technical options, effective message strategies in the context of emerging media, and basic principles associated with the practical use of tools for the creation of emerging media content. Both a lecture/discussion format and a hands-on project approach will be utilized.

**MEDIA ST 2228 Public Relations Writing: 3 semester hours**

Prerequisites: ENGL 3140 or equivalent. An introduction to the process of planning, producing, and evaluating written public relations messages. Writing assignments include media releases, letters, memos, position papers, background papers, brochures, and reports and proposals.

**MEDIA ST 2235 Media Theory: 3 semester hours**

Prerequisite: MEDIA ST 1050. Theory based explanation of the relationship between mass media and society. Topics will include agenda-setting, violence and television, and other current issues from a critical perspective.

**MEDIA ST 2271 History Of American Film: 3 semester hours**

Prerequisites: MEDIA ST 1070 or consent of the instructor. History of American film from the late nineteenth century to the present.

**MEDIA ST 2272 Contemporary Cinema: 3 semester hours**

Prerequisites: MEDIA ST 1070 or Consent of Instructor. History of World Cinema from the 1940s to the present day.

**MEDIA ST 2273 Survey of Film Genres: 3 semester hours**

Prerequisite: MEDIA ST 1060 or MEDIA ST 1070, or consent of instructor. This course explores the historical and aesthetic significance of film varieties. Analysis of genres may include the western, horror, science fiction, musical, detective, war, romantic comedy, and other films by type.

**MEDIA ST 2274 African-American Cinema: 3 semester hours**

Prerequisites: MEDIA ST 1070 or equivalent. Impact of cinema and the entertainment industry on the social perceptions of African-Americans and on African-American culture. The history of African-American films from Oscar Micheaux in the 1920's through 1970's Blaxploitation to present directors and producers will be examined. African-American experiences and roles in films will also be discussed.

**MEDIA ST 2275 Introduction To International Cinema: 3 semester hours**

Prerequisites: MEDIA ST 1070 with a grade of C or better. Course provides an understanding of the art and history of international cinema; and helps to better understand film and filmmakers' intentions as well as the culture in which the film was produced. Films from Europe, Asia, South America, Africa and Australia will be examined. The artistic, technical, historical and social significance of these films, as well as their impact upon American cinema, will also be studied.

**MEDIA ST 2500 Introduction To Comparative International Media Systems: 3 semester hours**

This course introduces students to various media systems and theories around the world. It examines similarities and differences in media history, structures, and regulatory processes of developing countries, focusing on the dominant culture(s) of non-western regions. It also provides a framework for understanding and analyzing the cultural differences among global media systems in Africa, the Middle East, and Asia. In addition, the course examines aboriginal and other development media. The course fulfills the cultural diversity requirement.

**MEDIA ST 2510 Fundamentals of Mobile Design: 3 semester hours**

Building on core web languages and programming standards, this course introduces central concepts, techniques, methodologies, and best practices in the creation and deployment of mobile websites, applications, and user interface.

**MEDIA ST 3025 Current Issues in Advertising: 3 semester hours**

Prerequisites: MEDIA ST 1100, junior standing or consent of instructor. Using recent topics in advertising, students will analyze, evaluate, and critique current topics as well as prepare current campaigns for open discussion and presentation.

**MEDIA ST 3030 Advertising and Social Media: 3 semester hours**

Prerequisite: MEDIA ST 2090. Examination of advertising online with such topics as: social communities, friendvertising, virtual worlds, brand building, media democracy, online opinions, gaming, and how companies can leverage their brand using two-way interaction.

**MEDIA ST 3035 Advanced Media Theory: 3 semester hours**

Prerequisites: MEDIA ST 2235 or consent of instructor. This course examines major schools, ownership and theorists in mass media fields. The writings of the Frankfurt School, Marshall McLuhan, Ben Bagdikian, and others will be examined.

**MEDIA ST 3070 International Cinema: 3 semester hours**

Prerequisites: MEDIA ST 1070 and MEDIA ST 2275. Understanding international film, its properties, methods, aesthetics, and its impact on culture and society.

**MEDIA ST 3113 Media Production II: 3 semester hours**

Prerequisites: MEDIA ST 2113. Advanced study of the skills needed to create media packages. The class will provide students with a continuation of practical training in camera operations, directing, producing, switching, audio mixing, and lighting, as well as more advanced post production techniques. Lab arranged.

**MEDIA ST 3150 Feature Writing: 3 semester hours**

Same as ENGL 3150. Prerequisites: ENGL 1100 or equivalent. Study of freelance and staff-written magazine or newspaper feature articles. Emphasis on relationship between types of publication and article content, research methods, and writing style. Frequent short assignments - journal entries, interviews, library projects, article critiques, and market reports - lead to production of full-length feature articles. May not be taken on the satisfactory/unsatisfactory option. The course counts toward the English Certificate in Writing.

**MEDIA ST 3180 Reporting: 3 semester hours**

Same as ENGL 3180. Prerequisites: ENGL 3140 or equivalent. Theory and practice of reporting news for publication in the print media. Includes one classroom session and one field assignment weekly. Stories must be filed within deadline limit. Writing emphasis is on clarity, conciseness, and accuracy. The course counts toward the English certificate in Writing.

**MEDIA ST 3214 News Writing: 3 semester hours**

Same as ENGL 3140. Prerequisites: ENGL 1100 or equivalent. An introduction to news writing and reporting. Course covers basic components of news reporting principles, and news writing style and structure. Daily writing assignments include coverage of speeches, meetings and interviews, accidents, deaths, courts, sports, consumer affairs, and government. Emphasis on clarity, accuracy, and speed. The course counts toward the English Certificate in Writing. THIS COURSE WAS PREVIOUSLY COMM 3214 PRIOR TO AUGUST 2007.

**MEDIA ST 3310 Video Production II: 3 semester hours**

Prerequisite: MEDIA ST 2210. Study of advanced theories of media production. Refinement of production principles learned in MEDIA ST 2210. Exploration of complex program formats, and advanced non-linear editing techniques. Lab arranged.

**MEDIA ST 3313 Advanced Video Editing: 3 semester hours**

Prerequisites: Six (6) hours of television production. Study of advanced non-linear editing techniques, animation, and advanced graphics development. Exploration of state of the art editing formats. Lab arranged.

**MEDIA ST 3317 Radio And The Recording Industry: 3 semester hours**

Prerequisite: Junior standing. Historical development and current status of the recording industry, particularly as it interacts with the broadcast industry. Impact of radio and recording technology on the development of rock and other popular music.

**MEDIA ST 3334 Advertising Media Planning: 3 semester hours**

Prerequisite: MEDIA ST 1050. A hands-on study of how to determine an advertising budget, select media and develop a strategic plan.

**MEDIA ST 3338 Advertising Technique: 3 semester hours**

Same as MKTG 3738 Prerequisite: MEDIA ST 1100 or MKTG 3700 or consent of instructor. Techniques for creating advertising messages and campaigns to reach target audiences. Focus on the process of persuasion, importance of advertising in modern economics, rationale for company advertisement, evaluation of advertising effectiveness, and assessment of advertising myths and truths. Practical application of messages and campaigns will be stressed.

**MEDIA ST 3350 Mass Media History: 3 semester hours**

Prerequisites: MEDIA ST 1050 or MEDIA ST 1110. Examination of the social, economic, and political factors contributing to the development of American mass media. Emphasis on significant personalities who helped shape its course; analysis of select critical works.

**MEDIA ST 3355 Media Law And Regulation: 3 semester hours**

Prerequisites: MEDIA ST 1050 or MEDIA ST 1110. Discussion of laws affecting the mass media. Exploration of problems and issues in legal regulation of media content, ownership, access, and accountability. Discussion of industry self-regulation and the influence of citizens' organizations.

**MEDIA ST 3356 Global Media Systems And Trends: 3 semester hours**

This course will survey major theories, global trends, and key stakeholders in the field of mass and multi-media. Designed to foster substantive comprehension of issues raised by transnational media corporations and their impact on other cultures and languages. Details about the BBC, CNN, MTV, Euro Disney, and the internet will be major components of this class.

**MEDIA ST 3357 Media Convergence: 3 semester hours**

This course will provide students with an overview of how computer technologies, telecommunication networks, and digital media are transforming contemporary culture and everyday life. Through hands-on projects on topics of social relevance, students will explore multiple platforms for reaching a variety of audiences. The course will also deal with policy issues such as regulation and competition.

**MEDIA ST 3362 Storytelling: 1-3 semester hours**

Prerequisites: Junior standing or consent of instructor. Course gives an overview of the history of storytelling, types of tales, and appropriate uses for storytelling. The primary emphasis of the course is in developing storytelling skills through preparation, performances, and evaluation.

**MEDIA ST 3370 Documentary Film: 3 semester hours**

Prerequisite: MEDIA ST 1070 Consideration of the history, theory, and criticism of nonfiction film. Screening of representative documentary films.

**MEDIA ST 3380 Feature Film Screenwriting: 3 semester hours**

This course involves a careful examination and execution of the art and craft of feature film screenwriting from concept through completion and marketing. Students will learn aspects of proper screenplay format, developing dramatic characters, theme, and plot, with emphasis on visual storytelling.

**MEDIA ST 3394 Internship In Journalism: 3-6 semester hours**

Prerequisites: Senior standing, with at least 12 hours of course work in journalism, masscommunication; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work with an off-campus newspaper, magazine, or other news organization, supervised by a journalism professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 3395 Internship In Advertising: 3-6 semester hours**

Prerequisites: Senior standing, with at least 12 hours of course work in advertising; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have delayed grades. Practical work at an off-campus advertising agency, supervised by a professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 3396 Internship In Radio: 3-6 semester hours**

Prerequisites: Senior standing, with at least 12 hours of course work in radio, broadcasting; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus radio station, supervised by a professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 3397 Internship In Television/Film: 3-6 semester hours**

Prerequisites: Senior standing, with at least 12 hours of course work in television, film, video; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus television, film or video organization, supervised by a television, film or video professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 3398 Internship In Media Studies: 3-6 semester hours**

Prerequisites: Senior standing, with at least 12 hours of course work in television, film, video, radio, journalism, broadcasting, mass communication; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus agency, supervised by a professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 3500 Advanced Advertising Seminar: 3 semester hours**

Prerequisites: MEDIA ST 2080, MEDIA ST 2090, and MEDIA ST 3334 or consent of instructor. Students utilize skills learned in copywriting, creative advertising, and media buying and planning. Students are graded on research and customer insights, strategy, messaging and creative media plan, advertising partnerships, and measures of effectiveness. The course final includes preparing a Plan Book for a specific client and presenting at a national competition.

**MEDIA ST 3505 Field Experience in Advertising: 3 semester hours**

Prerequisites: Junior standing and completion of 3 courses from the Certificate in Advertising or consent of instructor. Through supervised travel, students will examine current ad campaigns, media placement, and effects on consumer purchasing behaviors. They will develop a broad hands-on understanding of the industry while applying principles and practices learned in the classroom. Topics include creativity with visual images and/or photographs, copywriting, accounting planning, account services, and media planning and buying. For field experience, students will visit advertising agencies, businesses that have in-house advertising departments, vendors (such as printers), museums, and other creative venues in St. Louis and/or other cities.

**MEDIA ST 3990 Directed Readings In Media Studies: 3 semester hours**

Prerequisites: consent of instructor; not open to students who have any delayed grades. Supervised independent study involving readings, conferences, papers, in one of the department's disciplines: advertising, radio, television, film, or journalism.

**MEDIA ST 4040 Special Topics in Media Studies: 1-6 semester hours**

Prerequisites: Junior, Senior, or Graduate standing and consent of instructor. Special topics with subject matter dealing with current issues, (theoretical or applied), in the discipline of media studies. Since the topics of Media Studies 4040 may change from semester to semester, the course may be repeated for up to 12 credit hours.

**MEDIA ST 4270 Feature Film Writing: 3 semester hours**

Prerequisites: MEDIA ST 1070 or consent of instructor. This course will include story conceptualization, development, and drafting a feature film script ready for production. Characterization, dramatic structure, thematic subtext, and visual storytelling will be emphasized.

**MEDIA ST 4271 Feature Film Production: 3 semester hours**

Prerequisites: MEDIA ST 2210 or consent of Instructor. This course will emphasize production techniques applicable to a wide variety of audio, film, and video-based media. Students will be involved in feature film production assignments on location in addition to regularly scheduled classes.



**MEDIA ST 4272 Feature Film Post Production: 3 semester hours**

Prerequisites: MEDIA ST 2210 or consent of instructor. This course will provide instruction in editing techniques and motivation, as well as continuity, rhythmic, graphic, and temporal editing principles. Students will work on feature film segments in addition to regularly scheduled classes.

**MEDIA ST 4392 Administration Of Co-Curricular Activities: 3 semester hours**

Prerequisites: Junior Standing or consent of instructor. A survey of skills required to administer the various co-curricular activities associated with teachers in the secondary schools, such as theatre performances and mass media centers.

**MEDIA ST 4400 Senior Project: 3-6 semester hours**

Prerequisites: Senior Status, Consent of Instructor. The capstone experience requires seniors to produce an original research project, a representative portfolio, or an intrinsic case study, which exemplifies their undergraduate study. Students will present their work to the instructor supervising the course, as well as program related-faculty. Repeatable up to 6 credit hours.

## Management

### Courses

**MGMT 3600 Management And Organizational Behavior: 3 semester hours**

Same as SOC 3600. Prerequisites: Junior standing and a 2.0 overall GPA. This course involves the study of the behavior of individuals and groups in an organizational setting. Specific topics examined include: motivation, leadership, organizational design, and conflict resolution, as well as basic coverage of management principles. In covering these topics, both "classic" and current perspectives are provided.

**MGMT 3611 Advanced Management And Organizational Behavior: 3 semester hours**

Prerequisites: MGMT 3600 and a 2.0 overall GPA. Building upon MGMT 3600, course provides a more detailed examination of motivation, leadership, group process, decision making, job design, and organizational development. In addition to providing more detail in terms of content, this course provides the student with considerable practical experience through the use of class exercises, case studies, and small group discussions.

**MGMT 3612 Professional Skills Development: 3 semester hours**

Prerequisite: A minimum 2.0 campus GPA and Junior Standing This course focuses on career management. Topics include job search, interviews, resumes and cover letters, presentation skills, business etiquette, entry strategies, and career alternatives.

**MGMT 3621 Human Resource Management: 3 semester hours**

Prerequisites: MGMT 3600 and a 2.0 overall GPA. In-depth examination of selected human resource management issues from a contemporary manager's viewpoint. Topics examined include: employee selection, performance appraisal, training and development, compensation, legal issues, and labor relations.

**MGMT 3622 Industrial And Labor Relations: 3 semester hours**

Prerequisite: MGMT 3600 and a 2.0 overall GPA. Emphasis is on the dynamic relationship between management, employees, unions, and government as determinants in the efficient and effective use of human resources. Current issues and case material are used to supplement text and lecture.

**MGMT 3623 Industrial And Organizational Psychology: 3 semester hours**

Same as PSYCH 3318. Prerequisite: PSYCH 2201 or MATH 1105, MGMT 3600. This course introduces the student to psychological research and theories pertaining to human behavior in the work setting. Topics covered include: selection, performance appraisal, training, leadership, motivation, job satisfaction, and organizational design.

**MGMT 3624 Employee Training And Development: 3 semester hours**

Prerequisites: A minimum overall GPA of 2.0. In addition, MGMT 3600 or permission of instructor. An intensive study of training in organizations, including needs analysis, learning theory, management development, and development of training objectives and programs. Projects and exercises are used to supplement the readings.

**MGMT 3625 Leadership in Organization: 3 semester hours**

Prerequisites: MGMT 3600 and a minimum 2.0 campus GPA. This course introduces classic and contemporary theories of leadership. The emphasis is on building a sound grasp of good practice and on developing the student's ability to apply such knowledge as he/she enters today's global workforce. The course covers key theories and models of effective leadership in organizations.

**MGMT 3680 International Management: 3 semester hours**

Same as INTL BUS 3680. Prerequisites: A minimum 2.0 campus GPA. In addition, ECON 1002 and MGMT 3600; or consent of the instructor. A study of international business and management practices. Topics covered include an introduction to international management and the multinational enterprise, the cultural environment of international management, planning in an international setting, organizing for international operations, directing international operations, international staffing, preparing employees for international assignments, and the control process in an international context.

**MGMT 3690 Internship In Management: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Management electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of Management where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Management faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BA 3690 may not be counted toward the minimum 12 credit hours of management electives required for a MOB emphasis.

**MGMT 3695 Special Admin Problems - Management & Organization Behavior: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**MGMT 3698 Seminar in Management: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of management. May be repeated for credit with different topics.

**MGMT 3699 Independent Study In Management: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in management under the supervision of a full-time management faculty member.



**MGMT 4219 Strategic Management: 3 semester hours**

Prerequisites: Senior standing and FINANCE 3500, MKTG 3700, MGMT 3600; a minimum overall GPA of 2.0.; and concurrent enrollment MGMT 4220. This is a capstone course drawing on the subject matter covered in prerequisite courses. Emphasis is on the formulation and implementation of corporate, business and functional strategies designed to achieve organizational objectives. Topics include the role of top management, globalization of business and ethical perspectives. Case studies and research reports may be used extensively. (It is preferred that this course be taken during the student's final semester.

**MGMT 4220 Business Assessment Testing: 0 semester hours**

Prerequisite: Concurrent enrollment in MGMT 4219, Strategic Management. A one-time lab during which a major field exam in business is administered. Course graded on a satisfactory/ unsatisfactory basis. Satisfactory grade required for graduation.

**MGMT 4614 Entrepreneurship/Small Business Management: 3 semester hours**

Prerequisite: BUS AD 2900, FINANCE 3500, MKTG 3700, MGMT 3600, and a 2.0 overall GPA. This integrative general management course is designed to communicate the academic principles of business management applicable to solving of problems of small and medium-size businesses and assist in their development. This course will provide a background in the forms of business, the development of business plans and systems integration, venture capital, accounting, procurement, promotion, financing, distribution and negotiations for initial organization, and operation and expansion of the firm.

**MGMT 5600 Organizational Behavior And Administrative Processes: 3 semester hours**

Same as P P ADM 6600. The theoretical and research contribution of the behavioral sciences to management and administration are examined and applied to selected organizational situations. Areas to be considered from the standpoint of both individual and organizational performance are communication, motivation, conflict, decision-making, goal setting, leadership, organizational design, climate, development and control. Utilizing a systems perspective, the course attempts to develop in each student an ability to analyze and solve organizational problems.

**MGMT 5611 Advanced Organizational Behavior And Administrative Processes: 3 semester hours**

Prerequisite: MGMT 5600. An indepth examination of selected organizational and individual theories affecting behavior and operating performance. Organizational structure and design, formal and informal organization, decision making, communications and motivation are analyzed for their organizational impact. The course seeks to develop further the ability to analyze and evaluate organizational processes and individual behavior.

**MGMT 5612 Negotiating Workplace Conflict: 3 semester hours**

Same as P P ADM 6680. Prerequisites: P P ADM 6600 / MGMT 5600, and Graduate Standing Examines conflict and cooperation between individuals, groups, and organizations over the control of work. A central theme is how this conflict is expressed, controlled and resolved. Students will participate in exercises to learn the basics of two-party negotiations.

**MGMT 5614 Managing Organizational Change And Design: 3 semester hours**

Prerequisites: MGMT 5600 (may be taken concurrently). This course examines the ways to manage organizational change to meet the rapid pace of change in the business environment. Cases and current research inform class discussions of different types of restructuring. Topics may include creating learning organizations, designing for innovation, managing growth and downsizing, and building sustainable organizations.

**MGMT 5621 Managing Human Resources: 3 semester hours**

Prerequisite: MGMT 5600. In-depth examination of selected of human resource management issues from a contemporary manager's viewpoint. Topics examined include: personnel planning; employee selection; performance appraisal, training, and development; compensation; legal issues; discipline; and labor relations. The course examines these topics as they relate primarily to operational activities in organizations.

**MGMT 5622 Union-Management Relations And Collective Bargaining: 3 semester hours**

Prerequisite: MGMT 5600 and BUS AD 5900. Primary concern is with the setting and the dynamics of contract negotiation and administration. Emphasis is on the development of insight and understanding of the forces affecting the decisions of the parties to a labor contract within the context of the social, political and economic environment of the organization. A dynamic approach is taken to examine difficulties that arise in attempting to administer a collectively established relationship between employer and employee.

**MGMT 5625 Selected Topics In Human Resource Management: 3 semester hours**

Prerequisites: MGMT 5621 and LOG OM 5300. This course provides an advanced treatment of selected human resource management topics. Primary focus is on topics such as job analysis, pre-employment screening devices, test validation, and civil rights laws. Other topics, such as performance appraisal, recruitment, promotions, and terminations may be covered. Various class projects may be assigned to supplement readings, lectures, and discussion.

**MGMT 5695 Seminar In Management: 3 semester hours**

Prerequisites: MGMT 5600 Topics of current interest in management. Possible topics include: human resource management, international management, and entrepreneurship.

**MGMT 5699 Individual Research in Management: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Management under the guidance of a specific professor.

## Courses

**MGMT 3600 Management And Organizational Behavior: 3 semester hours**

Same as SOC 3600. Prerequisites: Junior standing and a 2.0 overall GPA. This course involves the study of the behavior of individuals and groups in an organizational setting. Specific topics examined include: motivation, leadership, organizational design, and conflict resolution, as well as basic coverage of management principles. In covering these topics, both "classic" and current perspectives are provided.

**MGMT 3611 Advanced Management And Organizational Behavior: 3 semester hours**

Prerequisites: MGMT 3600 and a 2.0 overall GPA. Building upon MGMT 3600, course provides a more detailed examination of motivation, leadership, group process, decision making, job design, and organizational development. In addition to providing more detail in terms of content, this course provides the student with considerable practical experience through the use of class exercises, case studies, and small group discussions.

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Prerequisite: A minimum 2.0 campus GPA and Junior Standing This course focuses on career management. Topics include job search, interviews, resumes and cover letters, presentation skills, business etiquette, entry strategies, and career alternatives.

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Prerequisite: MGMT 3600 and a 2.0 overall GPA. Emphasis is on the dynamic relationship between management, employees, unions, and government as determinants in the efficient and effective use of human resources. Current issues and case material are used to supplement text and lecture.

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**MGMT 3680 International Management: 3 semester hours**

Same as INTL BUS 3680. Prerequisites: A minimum 2.0 campus GPA. In addition, ECON 1002 and MGMT 3600; or consent of the instructor. A study of international business and management practices. Topics covered include an introduction to international management and the multinational enterprise, the cultural environment of international management, planning in an international setting, organizing for international operations, directing international operations, international staffing, preparing employees for international assignments, and the control process in an international context.

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Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Management electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of Management where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Management faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BA 3690 may not be counted toward the minimum 12 credit hours of management electives required for a MOB emphasis.

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**MGMT 5611 Advanced Organizational Behavior And Administrative Processes: 3 semester hours**

Prerequisite: MGMT 5600. An indepth examination of selected organizational and individual theories affecting behavior and operating performance. Organizational structure and design, formal and informal organization, decision making, communications and motivation are analyzed for their organizational impact. The course seeks to develop further the ability to analyze and evaluate organizational processes and individual behavior.

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**MGMT 5695 Seminar In Management: 3 semester hours**

Prerequisites: MGMT 5600 Topics of current interest in management. Possible topics include: human resource management, international management, and entrepreneurship.

**MGMT 5699 Individual Research in Management: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Management under the guidance of a specific professor.

## Music History

### Courses

**M H L T 1001 Introduction To Music: 3 semester hours**

An historically oriented study of art music, its styles and forms from the Baroque period to the present day. This course will not apply toward requirements for a music major.

**M H L T 1010 History Of Western Music I: 3 semester hours**

Prerequisite: THRY COM 1301/ THRY COM 1302 or consent of department. A general survey of the history of western music. Includes the evolution and development of styles, forms and their social setting. This course meets the General Education requirement for Humanities and Fine Arts Knowledge and Valuing Skills.

**M H L T 1020 History Of Western Music II: 3 semester hours**

Prerequisite: THRY COM 1301/THRY COM 1302 or consent of department. A continuation of M H L T 1010. This course meets the General Education requirements for the Humanities and Fine Arts Knowledge and Valuing Skills.

**M H L T 1060 Introduction To African-American Music: 3 semester hours**

This course will survey African-American musical heritage from its African origins through its role and development in twentieth century American Society. All genres will be discussed, including African-American composers who wrote in the European tradition. This course will not apply toward requirements for music major or minor.

**M H L T 1070 Introduction To Jazz: 3 semester hours**

A survey course which examines the musical, historical and social aspects of the subject. This course will not count toward requirements for a music major.

**M H L T 1080 Introduction To Irish Traditional Music: 3 semester hours**

Will survey the rich tapestry of Irish traditional music, song and dance. Particular attention will be given to the cultural history of the traditional music maker in Irish society, as well as among the constituent communities of the Irish diaspora in Europe and North America. Will introduce students to the instruments, performance settings and regional styles of Irish traditional music. Using field recordings and archive materials collected in Ireland and North America, will focus on celebrated folk performers of the past and present, and evaluate the impact of contemporary media on their ancient, yet evolving, musical genre. No prior experience of Irish traditional music is necessary to pursue this course.

**M H L T 1090 Non-Western Music I: 3 semester hours**

The music of Oceania; folk and classical music and dance of East Asia, Tibet and Southeast Asia, the influence of Buddhism, Islam and western acculturation on the functions of music in these societies.

**M H L T 1120 The American Musical Film: 3 semester hours**

This course is a survey of the American film genre. Emphasis on themes, conventions, audience relationships, cultural values, and the synthesis of film form, music and dance. Examination of films such as Top Hat, West Side Story, Chicago, An American in Paris.

**M H L T 1130 Introduction to Music Theatre: 3 semester hours**

A study of music theatre as an art form emphasizing the contributions of the playwright, composer, lyricist, actor, musician, dancer, choreographer, director, designer, and technicians. Major stylistic periods and dramatic forms will be covered. Students will learn about how music theatre functions as an art and an industry in today's world. Attendance at live theatrical performances and/or rehearsals will be required.



**M H L T 1140 Popular Music in America: 3 semester hours**

This course is designed as a survey of major genres of American popular music - Tin Pan Alley, musical theater, ragtime, blues, early and more popular phases of jazz, country, rock, pop, hip-hop, rap, etc. Included will be a broad spectrum of cultural and historical contexts, insight into the development of the music industry, study of significant artists, and understandings of the formal and stylistic components of the music.

**M H L T 1150 Drumming Cultures of the World: 3 semester hours**

Drumming is one of the oldest forms of expression in the world and is prevalent on every continent. This course is designed as a survey of drumming throughout the world and the significance to the cultures therein. Included will be a broad spectrum of cultural and historical contexts, performance practices and hands on instruction. The major focus in this course will be the drumming practices of Africa, Asia, South America and the Caribbean. This course satisfies the cultural diversity requirement for the University.

**M H L T 1160 Musical Journey through Latin America: 3 semester hours**

Explore the diversity of this contagious music of the past and present, from the tango of Argentina, to salsa and meringue of the Caribbean, and from huayno of Amerindian cultures, to the marimba of Middle Latin America! This introduction to musical cultures of Latin America reveals the rich and wide range of musical forms, instruments, and styles that has influenced music on almost all parts of the globe today.

**M H L T 1170 Musical Journey through the Far East: 3 semester hours**

This class will explore the musical traditions and instruments of the countries of East Asia - China, Japan, and Korea. Much of the legendary founding of music and musical instruments originated on the Asian continent and transplanted along the Silk Road (trade routes from India, Persia and the Mediterranean) to the Far East. We will examine some of the world's most amazing sounds of the Orient.

**M H L T 1180 Musical Journal Through Africa: 3 semester hours**

This introduction to musical cultures of Africa provides a snapshot of African music south of the Sahara, or sub-Saharan Africa. We will explore the extraordinary rich and diverse musical traditions through the sounds and rhythms of its people. Highlights of the course include the introduction to a wide range of authentic musical instruments from Africa.

**M H L T 1190 Musical Journey of the Native North American: 3 semester hours**

This introduction to musical cultures of the Native American provides a snapshot of the aboriginal and modern day Native American in North America. We will explore the extraordinary rich and diverse musical traditions through the sounds and cultural practices of its people. Highlights of the course include the introduction to a wide range of authentic musical instruments of the Native American.

**M H L T 4000 Directed Studies: 1-5 semester hours**

Prerequisites: Consent of Instructor. Directed independent study of selected topics in music. May be repeated, but no more than 5 hours may be applied toward a degree.

**M H L T 4220 Music Of The Renaissance: 3 semester hours**

Prerequisite: M H L T 1010 or consent of department. A study of the theoretical and practical impact of humanism on music, musicians, and musical thought from 1450 to 1600. Sacred and secular music; the rise of an instrumental idiom.

**M H L T 4230 Music Of The Baroque: 3 semester hours**

Prerequisite: M H L T 1010 or consent of department. A detailed study of music from 1600 to 1750. The rise of the new style, national styles in the seventeenth century and the culmination of the Baroque period.

**M H L T 4240 Music Of The Classic Period: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department. A study of the growth of classical style; Galant and expressive styles; Mozart, Haydn and Beethoven.

**M H L T 4250 Music Of The Romantic Period: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department. Composers, forms and styles in nineteenth century music. The literary and social background of musical romanticism.

**M H L T 4260 Music from 1900 to the Present: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department. A detailed study of trends in modern music and of influential composers; impressionism, serial composition, electronic music and other recent techniques.

**M H L T 4270 A History Of Byzantine Music And Hymnography: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department A study of the liturgical and secular music of the Byzantine Empire and post-Byzantine period during the Ottoman occupation; a historical investigation of the Oriental and Ancient Greek origins of the music along with an evolution of the types of music and poetical forms. A study of the types of notation and transcription analyses from the Medieval neumes into Western staff notation is included.

**M H L T 4280 American Music: 3 semester hours**

Prerequisites: M H L T 1010 or M H L T 1020 or consent of department. A study of the history and literature of American music, its composers, performers and influences on American and world culture. Compositions studied include classical compositions from the colonial era through contemporary times as well as literature from the gospel, blues, jazz and popular music genres.

## Courses

**M H L T 1001 Introduction To Music: 3 semester hours**

An historically oriented study of art music, its styles and forms from the Baroque period to the present day. This course will not apply toward requirements for a music major.

**M H L T 1010 History Of Western Music I: 3 semester hours**

Prerequisite: THRY COM 1301/ THRY COM 1302 or consent of department. A general survey of the history of western music. Includes the evolution and development of styles, forms and their social setting. This course meets the General Education requirement for Humanities and Fine Arts Knowledge and Valuing Skills.

**M H L T 1020 History Of Western Music II: 3 semester hours**

Prerequisite: THRY COM 1301/THRY COM 1302 or consent of department. A continuation of M H L T 1010. This course meets the General Education requirements for the Humanities and Fine Arts Knowledge and Valuing Skills.

**M H L T 1060 Introduction To African-American Music: 3 semester hours**

This course will survey African-American musical heritage from its African origins through its role and development in twentieth century American Society. All genres will be discussed, including African-American composers who wrote in the European tradition. This course will not apply toward requirements for music major or minor.



**M H L T 1070 Introduction To Jazz: 3 semester hours**

A survey course which examines the musical, historical and social aspects of the subject. This course will not count toward requirements for a music major.

**M H L T 1080 Introduction To Irish Traditional Music: 3 semester hours**

Will survey the rich tapestry of Irish traditional music, song and dance. Particular attention will be given to the cultural history of the traditional music maker in Irish society, as well as among the constituent communities of the Irish diaspora in Europe and North America. Will introduce students to the instruments, performance settings and regional styles of Irish traditional music. Using field recordings and archive materials collected in Ireland and North America, will focus on celebrated folk performers of the past and present, and evaluate the impact of contemporary media on their ancient, yet evolving, musical genre. No prior experience of Irish traditional music is necessary to pursue this course.

**M H L T 1090 Non-Western Music I: 3 semester hours**

The music of Oceania; folk and classical music and dance of East Asia, Tibet and Southeast Asia, the influence of Buddhism, Islam and western acculturation on the functions of music in these societies.

**M H L T 1120 The American Musical Film: 3 semester hours**

This course is a survey of the American film genre. Emphasis on themes, conventions, audience relationships, cultural values, and the synthesis of film form, music and dance. Examination of films such as Top Hat, West Side Story, Chicago, An American in Paris.

**M H L T 1130 Introduction to Music Theatre: 3 semester hours**

A study of music theatre as an art form emphasizing the contributions of the playwright, composer, lyricist, actor, musician, dancer, choreographer, director, designer, and technicians. Major stylistic periods and dramatic forms will be covered. Students will learn about how music theatre functions as an art and an industry in today's world. Attendance at live theatrical performances and/or rehearsals will be required.

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**M H L T 1160 Musical Journey through Latin America: 3 semester hours**

Explore the diversity of this contagious music of the past and present, from the tango of Argentina, to salsa and meringue of the Caribbean, and from huayno of Amerindian cultures, to the marimba of Middle Latin America! This introduction to musical cultures of Latin America reveals the rich and wide range of musical forms, instruments, and styles that has influenced music on almost all parts of the globe today.

**M H L T 1170 Musical Journey through the Far East: 3 semester hours**

This class will explore the musical traditions and instruments of the countries of East Asia - China, Japan, and Korea. Much of the legendary founding of music and musical instruments originated on the Asian continent and transplanted along the Silk Road (trade routes from India, Persia and the Mediterranean) to the Far East. We will examine some of the world's most amazing sounds of the Orient.

**M H L T 1180 Musical Journal Through Africa: 3 semester hours**

This introduction to musical cultures of Africa provides a snapshot of African music south of the Sahara, or sub-Saharan Africa. We will explore the extraordinary rich and diverse musical traditions through the sounds and rhythms of its people. Highlights of the course include the introduction to a wide range of authentic musical instruments from Africa.

**M H L T 1190 Musical Journey of the Native North American: 3 semester hours**

This introduction to musical cultures of the Native American provides a snapshot of the aboriginal and modern day Native American in North America. We will explore the extraordinary rich and diverse musical traditions through the sounds and cultural practices of its people. Highlights of the course include the introduction to a wide range of authentic musical instruments of the Native American.

**M H L T 4000 Directed Studies: 1-5 semester hours**

Prerequisites: Consent of Instructor. Directed independent study of selected topics in music. May be repeated, but no more than 5 hours may be applied toward a degree.

**M H L T 4220 Music Of The Renaissance: 3 semester hours**

Prerequisite: M H L T 1010 or consent of department. A study of the theoretical and practical impact of humanism on music, musicians, and musical thought from 1450 to 1600. Sacred and secular music; the rise of an instrumental idiom.

**M H L T 4230 Music Of The Baroque: 3 semester hours**

Prerequisite: M H L T 1010 or consent of department. A detailed study of music from 1600 to 1750. The rise of the new style, national styles in the seventeenth century and the culmination of the Baroque period.

**M H L T 4240 Music Of The Classic Period: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department. A study of the growth of classical style; Galant and expressive styles; Mozart, Haydn and Beethoven.

**M H L T 4250 Music Of The Romantic Period: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department. Composers, forms and styles in nineteenth century music. The literary and social background of musical romanticism.

**M H L T 4260 Music from 1900 to the Present: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department. A detailed study of trends in modern music and of influential composers; impressionism, serial composition, electronic music and other recent techniques.

**M H L T 4270 A History Of Byzantine Music And Hymnography: 3 semester hours**

Prerequisite: M H L T 1020 or consent of department. A study of the liturgical and secular music of the Byzantine Empire and post-Byzantine period during the Ottoman occupation; a historical investigation of the Oriental and Ancient Greek origins of the music along with an evolution of the types of music and poetical forms. A study of the types of notation and transcription analyses from the Medieval neumes into Western staff notation is included.

**M H L T 4280 American Music: 3 semester hours**

Prerequisites: M H L T 1010 or M H L T 1020 or consent of department. A study of the history and literature of American music, its composers, performers and influences on American and world culture. Compositions studied include classical compositions from the colonial era through contemporary times as well as literature from the gospel, blues, jazz and popular music genres.

## Middle Education

### Courses

**MID ED 4246 Teaching Mathematics In The Middle School: 3 semester hours**

Prerequisites: level 1 and Level 2 and completion of mathematics area of concentration A study of the middle school math curriculum with state standards and appropriate instructional strategies, materials, and assessments.

**MID ED 4253 Teaching Social Studies In The Middle School: 3 semester hours**

Prerequisites: Completion of level 1 and level 2 courses. Study of middle school social studies emphasizing current social studies curricular content, methods of teaching, and instructional materials. If taken concurrently with internship, field hours will be combined within the internship experience. If this course is taken separately, middle school based field experiences are required in addition to scheduled course time.

**MID ED 4315 The Middle Level School: 3 semester hours**

Prerequisites: level 1 and admission to teacher education program An in-depth study of the philosophical and historical basis of the goals and organization of middle level schools, including a review of research as the basis for current trends and practices.

**MID ED 4316 Middle Level Curriculum And Instruction: 3 semester hours**

Prerequisites: Completion of Level 1 and MID ED 4315. Preparation for teaching and learning in a middle school, grades 5-9. Content focuses on curriculum development, methods, techniques, materials, planning, organization, and assessment in middle level education for early adolescents.

**MID ED 4317 The Middle-Level Child: 3 semester hours**

Prerequisites: Completion of level 2. Developmental characteristics and needs of early adolescents are studied through field experience in middle school classrooms. The relationship between needs and behavior is explored and skills for effective student teacher relationships are highlighted. This course to be taken concurrently with MidEd 4989.

**MID ED 4350 Teaching Science In The Middle School: 3 semester hours**

Prerequisites: Level I and Level 2 or equivalent preparation. Students will analyze both methodology and content, apply appropriate teaching and learning strategies, and become acquainted with technological advances in teaching science. Students will use informal and formal assessment as well as design and implement original science activities and instruction for all areas of science. If taken concurrently with internship, field hours will be combined within the internship experience. If this course is taken separately, then middle school based field experiences are required in addition to scheduled course time.

**MID ED 4989 Practicum I: Middle Level Education Site Based Experience: 3 semester hours**

Prerequisites: Level I and Level II requirements Bulletin description: This course is an intensive professional development experience (2 days per week) working in grades 6-8 settings with students. Activities on site include partnering with the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to impacting students achievement for diverse populations and differentiated instruction. Level III methods course assignments will be completed during the practicum day at school sites and Practicum I experiences inform Level III coursework. Practicum I is taken in the semester immediately preceding Practicum II. Not available for graduate credit.

**MID ED 4990 Practicum II: Middle Level Education Site Based Experience: 12 semester hours**

Prerequisites: Grade of C or higher in MID ED 4989 and admission to Teacher Education Program. Clinical teaching experiences, 4 days per week where placements occur in grades 6-8 school settings in the subject area of certification. Not available for graduate credit.

### Courses

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## Military Science

### Courses

**MIL SCI 1101 Introduction to Leadership I: 3 semester hours**

Examine the challenges and competencies that are critical for effective leadership. You will learn how the personal development of life skills such as cultural understanding, goal setting, time management, mental/physical resiliency, and stress management relate to leadership, officership, and the Army profession. Enrollment in MIL SCI 1101 does not require a commitment to join the US Army, (FALL ONLY).

**MIL SCI 1102 Introduction To Leadership II: 3 semester hours**

Investigate leadership fundamentals such as problem-solving, listening, presenting briefs, providing feedback, and using effective writing skills. You will explore dimensions of leadership attributes and core leader competencies in the context of practical, hands-on, and interactive exercises. Learn fundamental military concepts and explore the Army's leadership philosophy. Enrollment in MIL SCI 1102 does not require a commitment to join the US Army. (SPRING ONLY).

**MIL SCI 2201 Innovative Team Leadership: 3 semester hours**

Explore the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and leadership theories. The focus continues to build on developing knowledge of leadership attributes and core leader competencies through the understanding of Army rank, structure, and duties as well as broadening knowledge of land navigation and squad tactics. Enrollment in MIL SCI 2201 does not require a commitment to join the US Army. (FALL ONLY).

**MIL SCI 2202 Foundations of Tactical Leadership: 3 semester hours**

Develop greater self-awareness as you assess your own leadership styles and practice communication and team building skills. Examine the challenges of leading teams in the complex operational environment. Study dimensions of terrain analysis, patrolling, and operation orders. Explores the dynamics of adaptive leadership in the context of military operations. Enrollment in MIL SCI 2202 does not require a commitment to join the US Army. (SPRING ONLY).

**MIL SCI 3301 Adaptive Team Leadership: 3 semester hours**

Prerequisites: Successful completion of MIL SCI 1101 through 2202; OR attendance at the Leader's Training Course (LTC); OR member of US Army Reserve or National Guard Unit. This is an academically challenging course where you will study, practice, and apply the fundamentals of Army leadership, officership, Army values and ethics, and small unit tactics. At the conclusion of this course you will be capable of planning, coordinating, navigating, motivating and leading a team or squad in the execution of a tactical mission during a classroom practical exercise (PE), a leadership lab, or during a situational training exercise (STX) in a field environment. (FALL ONLY).

**MIL SCI 3302 Applied Team Leadership: 3 semester hours**

Prerequisites: MIL SCI 3301. Continue to learn and apply the fundamentals of Army leadership, officership, Army values and ethics as you hone your leadership abilities in a variety of tactical environments and the classroom. Successful completion of this course will help prepare you for success at the ROTC Leader Development and Assessment Course (LDAC) which you will attend the summer following this course at Fort Lewis, WA. You will receive systematic and specific feedback on your leadership attributes, values and core leader competencies from your instructors, other ROTC cadre, and senior cadets. (SPRING ONLY).

**MIL SCI 4401 Adaptive Leadership: 3 semester hours**

Prerequisites: Successful completion of the ROTC Leadership Development and Assessment Course (LDAC). This course focuses on practical application of adaptive leadership. Throughout the semester, students will attend weekly training meetings and fill the roles of Army staff officers. They will plan, execute and assess ROTC training and recruiting events. Study will also focus on the Army values, leader ethics and how they are applied in the Full Spectrum Operating Environment. The officer's role in the Uniform Code of Military Justice, counseling of subordinates, administrative actions and other aspects of everyday military life will also be discussed. (FALL ONLY).

**MIL SCI 4402 Leaders In A Complex World: 3 semester hours**

Prerequisites: MIL SCI 4401. Explore the dynamics of leading in the complex situation of current military operations in the contemporary operating environment. Examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. You will also explore aspects of interacting with non-government organizations, civilians on the battlefield and host nation support. Significant emphasis is placed on preparing you for your branch school and first unit of assignment. (SPRING ONLY).

**MIL SCI 4411 Advanced Military Science Studies I: 3 semester hours**

Prerequisites: MIL SCI 4401 or permission of instructor. An in-depth study of the role of the Army officer in today's Army.

**MIL SCI 4412 Advanced Military Science Studies II: 3 semester hours**

Prerequisites: MIL SCI 4401 or permission of instructor. A study of how the Army officer develops the leadership traits necessary to lead soldier's into battle.

**MIL SCI 4413 Military Medical Technologies Independent Study: 3 semester hours**

This course explores how medical advances have improved soldiers' chances of surviving battlefield injuries from the Civil War to the Iraq War. Also explores how soldiers are now surviving more catastrophic injuries and what the implications are on long term health care for these soldiers both physically and mentally.

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**Marketing****Courses****MKTG 3700 Basic Marketing: 3 semester hours**

Prerequisites: ECON 1001, Junior standing and a 2.0 overall GPA. An examination of the character and importance of the marketing process, its essential functions and the institutions performing them. Attention is focused on the major policies (such as distribution, product, price, and promotion) which underlie the multifarious activities of marketing institutions and the managerial, economic, societal implications of such policies.



**MKTG 3710 Consumer Behavior: 3 semester hours**

Prerequisites: MKTG 3700, and a minimum overall GPA of 2.0. A study of such consumer functions as decision-making, attitude formation and change, cognition, perception, and learning. The marketing concepts of product positioning, segmentation, brand loyalty, shopping preference and diffusion of innovations are considered in context with the environmental, ethical, multicultural and social influences on an increasingly diverse American consumer.

**MKTG 3720 Management Of Promotion: 3 semester hours**

Prerequisite: MKTG 3700 and a 2.0 overall GPA. A study of the design, organization and implementation of the marketing "communications mix". Various methods such as advertising, personal selling, and publicity are analyzed as alternatives for use alone, or in combination to stimulate demand, reseller support, and buyer preference. Particular topics considered include: media selection, sales promotionals, packaging, selling strategy and their relationships in the promotion process.

**MKTG 3721 Introduction to Digital Marketing Strategies: 3 semester hours**

Prerequisites: MKTG 3700 and a minimum campus GPA of 2.0. This course explores the world of digital media marketing and how it impacts and is integrated along with our traditional marketing channels. We will explore how the balance of power has shifted between brands and consumers. Consumers are more active in the marketing process and in influencing how brands communicate with them than ever before. In particular we will explore: The latest digital marketing trends, how to build a strong website from an organic perspective, search strategies for success, website intelligence and tracking using Google Analytics, retaining customers via Email marketing, online Display advertising, social media strategy, affiliate marketing, mobile marketing trends and developing an integrated marketing plan.

**MKTG 3722 Introduction to Social Media Marketing: 3 semester hours**

Social networks are becoming an integral part of the marketing mix. In these platforms, brands can engage with prospects and consumers on many levels. In this course you will learn how to create a brand presence on these social networks, understand the differences between earned and paid media, be introduced to the various tools (free and paid) used to listen and engage with consumers, discuss how brands manage healthy communities, learn techniques used social media managers to identify influencers, and study the various ways engagement is measured including calculating social media return on investment. Social networks to be discussed throughout the semester will include Facebook, Twitter, Tumblr, Instagram, LinkedIn, etc. Students will also be introduced to the various social measurement tools including Netbase (our partner), HootSuite, TweetDeck, Sprinklr, Technorati, etc. Real life case examples will be used throughout the semester.

**MKTG 3738 Advertising Technique: 3 semester hours**

Same as MEDIA ST 3338. Prerequisites: MEDIA ST 1100 or MKTG 3700 or consent of instructor. Techniques for creating advertising messages and campaigns to reach target audiences. Focus on the process of persuasion, importance of advertising in modern economics, rationale for company advertisement, evaluation of advertising effectiveness, and assessment of advertising myths and truths. Practical application of messages and campaigns will be stressed.

**MKTG 3740 Marketing Analysis: 3 semester hours**

Prerequisites: INFSYS 1800, MKTG 3700, LOG OM 3300, and a 2.0 Overall GPA. An investigation of the acquisition, presentation, and application of marketing information for management. Particular problems considered are defining information requirements, evaluating research findings, and utilizing information. Statistical methods, models, and/or cases are employed to illustrate approaches to marketing intelligence problems, such as sales forecasts, market delineation, buyer motives, store location, and performance of marketing functions.

**MKTG 3750 Sales Management: 3 semester hours**

Prerequisites: MKTG 3700 and MGMT 3600. (MGMT 3600 may be taken concurrently). Also a minimum campus GPA of 2.0. The aim of this course is to provide an understanding of how selling is critical to the success of marketing. The course will promote critical thinking skills as well as practical selling skills needed in a competitive marketplace. Course topics include, among others, selling principles & techniques, understanding of the tasks and roles of the sales manager, the management of sales professionals within an organization, developing and applying effective persuasive communications, creating a vision, developing and implementing a sales-team strategy, structuring sales-force, designing and assigning territories, recruiting, training, motivation and evaluating salespeople, methods of compensation, and forecasting sales. The emphasis will be on ways the sales-force can be molded to build long-lasting relationships with customers through the systematic analysis and solution of customer's problems.

**MKTG 3760 Business To Business Marketing: 3 semester hours**

Prerequisites: Senior standing, MATH 1105, MKTG 3700 and a 2.0 overall GPA. A study of the nature of the business-to-business (organizational) marketplace, concentrating on those aspects that differentiate it from consumer markets. The major focus of the course is marketing strategy, starting with analysis of the market wants and segments, concepts of pricing, the distribution arrangements, and buyer/seller relations. In this last area, consideration will be given to service, personal selling, sales promotion, and advertising, as found in the organizational marketplace. At all times emphasis is given to relating business-to-business marketing strategy to basic concepts in underlying business disciplines. Lectures and case discussions are used heavily in the course.

**MKTG 3770 Introduction To Transportation: 3 semester hours**

Prerequisite: A minimum campus GPA of 2.0; also Junior standing or instructor consent. This course provides an overview of the transportation sector, including history, providers, users, and government regulation. The importance and significance of transportation, the operational aspects of transportation modes of rail, water, motor, air and pipeline; the demand and supply of transportation, and the managerial aspects of these modes of transport will be covered in the course.

**MKTG 3771 Traffic And Transportation Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and Junior standing or instructor's consent. This course focuses on the purchase of transportation and warehouse services and/or the operation of transportation services as a firm activity. This course is also designed to provide the student with an exposure to the managerial aspects of transportation management as a function of the firm's logistical strategy. In addition, it includes an introduction to the management of firms with the various transportation modes of rail, motor, air, water, and pipelines. This course is designed to provide the student with a basic understanding of the issues and work performed by traffic managers and the management of modern transportation firms.

**MKTG 3776 Transportation Security, Safety and Disaster Preparedness: 3 semester hours**

Prerequisites: Junior standing or instructor's consent. This course emphasizes security issues related to the nation's highway, aviation, pipeline, inland waterway, transit, and rail networks, as well as port facilities. This course provides an overview of transportation safety issues including passenger and employee safety and hazardous materials. Strategies to prepare for transportation-related disasters in addition to the transport of people and goods after terrorism events or natural disasters are also addressed.

**MKTG 3777 Aviation in American Life: 3 semester hours**

Prerequisites: Junior standing or instructor's consent. This course focuses on the history and business of aviation in the United States from balloon flights preceding the Wright brothers through the terrorist attacks in September 2001 with emphasis upon how aviation and aviators have influenced American society, culture. Themes include the evolution of aviation technology, the growth of the commercial/military aviation/aerospace industries, issues of race and gender in aviation, the development of America's commercial airlines, aviation's influence upon American art, films, advertising, and literature, the significance of the space race, and the role of aerial weapons of war.

**MKTG 3780 International Marketing: 3 semester hours**

Same as INTL BUS 3780. Prerequisites: MKTG 3700 and a 2.0 overall GPA. Marketing management problems, techniques and strategies needed to apply the marketing concept to the world marketplace. Understanding a country's cultural and environmental impact on the marketing plan is emphasized, as well as competing in markets of various cultures. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, and current economic and marketing issues are examined.

**MKTG 3785 Women in International Entrepreneurship: 3 semester hours**

Prerequisites: MKTG 3700; MKTG 3780 or INTL BUS 3780; and Junior standing. This course is an integration of international business and entrepreneurship, with a focus on women entrepreneurs. It is designed to help students learn how entrepreneurs create and grow their ventures internationally. We will examine how entrepreneurs search, evaluate, and exploit opportunities across national boundaries to market goods and services effectively. We will explore the unique circumstances faced by women entrepreneurs and the appropriate strategies developed in order to sustain international growth.

**MKTG 3787 Marketing in the European Union: 3 semester hours**

Same as INTL BUS 3787. Prerequisites: MKTG 3780 or instructor's permission. The European Union (EU) is both a major customer and major competitor of the United States. The inclusion of many of the Eastern European countries into the EU has added another challenge to our ability to trade in this area. The better we understand the people, institutions and policies of the EU, the better positioned we will be to conduct business effectively. This course will emphasize understanding the institutional structure that unites the European Union as well as the cultural and political diversity of its members, and provide insights into how business activity functions in the European Environment.

**MKTG 3790 Internship In Marketing: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Marketing electives and have consent of supervising marketing instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of Marketing where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Marketing faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BA 3790 may be counted toward the minimum credit hours of marketing electives required for a marketing emphasis.

**MKTG 3795 Special Administration Problems - Marketing: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**MKTG 3798 Seminar in Marketing: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of marketing. May be repeated for credit with different topics.

**MKTG 3799 Independent Study In Marketing: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in marketing under the supervision of a full-time marketing faculty member.

**MKTG 4700 Marketing Management: 3 semester hours**

Prerequisites: MATH 1105, MKTG 3700, three other marketing elective courses, senior standing, and a 2.0 campus GPA. An intensive analysis of major marketing decisions facing the firm, such as level, mix, allocation, and strategy of marketing efforts. Specific decision areas investigated include market determination, pricing, physical distribution, product policy, promotion, channel management, and buyer behavior. Competitive, political, legal, and social factors that may affect such areas of decisions are discussed. Cases, models, and problems are used heavily.

**MKTG 5700 Contemporary Marketing Concepts: 3 semester hours**

Prerequisite: BUS AD 5000. Designed for students with no prior course work in the field of marketing. A wide spectrum of marketing institutions and activities is covered. The impact of marketing on the total firm, the economy, and society in general is assessed. The course is intended to develop and organize the fundamental marketing concepts necessary to an analytical study of consumer behavior, the economic environment and four managerial aspects of marketing. The acquisition and utilization of marketing research data for problem solving is stressed. Relation and integration of basic marketing knowledge to the successful development of sound marketing policy, planning, and strategy is developed.

**MKTG 5701 Marketing Planning And Strategy: 3 semester hours**

Prerequisite: MKTG 5700. Emphasizes the development of a total marketing program through an analytical study of the marketing-mix, the diagnosis of the business situation, along with the influence of exogenous variables and the development of an effective overall marketing strategy. Stresses importance of an integrated marketing plan and utilizes modern decision-making tools. Supplementary readings, journal articles, and current periodicals are used to place the theoretical framework of the course into the contemporary environment of the market place.

**MKTG 5710 Consumer Motivation And Behavior: 3 semester hours**

Prerequisite: MKTG 5700. An analysis of the socio-psychological foundations of consumer behavior including personality differences, needs and wants, status symbols, social change and mobility, fads and fashions. Consumer spending and saving habits, product preferences, leisure-time patterns, shopping behavior and motivation research also are examined for their impact on advertising, selling and marketing management.

**MKTG 5720 Marketing Communications: 3 semester hours**

Prerequisite: MKTG 5700. Deals with managerial decision making by placing particular emphasis on assimilating and integrating all forms of marketing communication in the development of promotional policies, plans and procedures. Course approach is analytical rather than descriptive in investigating the areas of advertising, public relations, sales management, packaging and other forms of demand stimulation.

**MKTG 5730 Clinical Study in Digital and Social Media Marketing: 3 semester hours**

Prerequisites: MKTG 5721 or MKTG 5722 or consent of instructor if prior digital/social media experience. This course, in partnership with Capital Innovators, provides students the opportunity for experiential learning by directly applying classroom topics to the real world. Students will be paired up with a new startup business in their current class and, over the course of the semester, contribute to their digital and social media marketing strategies by assisting in specific project tasks. Other mutually agreed upon areas of responsibility may be assigned as necessary. This is not an internship but rather a project support based clinical course providing very valuable learning in the very vibrant entrepreneurial startup world. It will be instructor led with weekly class meetings.

**MKTG 5731 Special Seminar in Digital and Social Media Marketing: 3 semester hours**

Prerequisites: MKTG5721 or MKTG5722 or consent of instructor if prior digital/social media experience. In this course, the students will be attending three special 2- or 3-day seminars discussing focused topics in Digital and Social Media Marketing. Seminar topics include Mobile Strategy, Email Marketing, Blogs to Buzz, Online Display Advertising, and Strategic Search Engine Marketing. This course may be offered on a weekend schedule.

**MKTG 5740 Marketing And Business Research: 3 semester hours**

Prerequisites: MKTG 5700 and LOG OM 5300. A broad approach to marketing research as a model for acquiring, retrieving, and analyzing decision-making information. Includes market measurement, evaluation of sales and cost effectiveness, sales forecasting and primary marketing research studies aimed at solving specific problems. Emphasis is placed also on building a theoretical and analytical framework to provide flexibility in the design of marketing experiments and in judging recent research innovations.

**MKTG 5761 Business To Business Marketing: 3 semester hours**

The course provides graduate students with an understanding of the role of business to business marketing as it pertains to business, government, and institutional customers. The course places a heavy emphasis on buyer-seller interaction embodying business to business marketing. In addition to discussing the standard theories and covering the subject domain of business marketing, the course focuses on the finer aspects of business to business marketing negotiations using exercises and readings. Student groups enact complex industrial buyer-seller negotiations striving to achieve their respective organizational goals.

**MKTG 5770 Supply Chain Management Strategy: 3 semester hours**

Prerequisite: Consent of instructor. Course addresses supply chain management and its implications, with a focus on what firms can do to maintain competitiveness in the quickly changing business landscape. Topics may include, but are not limited to, value chain analyses, marketing business-to-business, supply chain analytics, procurement, production, logistics, and inventory management within supply chains.

**MKTG 5775 Domestic Transportation: 3 semester hours**

Domestic Transportation is the study of North American transportation modes, their management and operating characteristics. This graduate course is part of the Mid-West Transportation Consortium where UMSL, along with 5 other Universities, provides guest lectures that comment on aspects of transportation. UMSL students concentrate on the business aspects of transportation.

**MKTG 5780 Seminar In International Marketing: 3 semester hours**

Same as INTL BUS 5780. Prerequisite: MKTG 5700 An advanced seminar on topics in international or global marketing. Possible topics include the globalization of trade, export marketing, international market opportunity analysis, and negotiation for international marketers. Students who take one version of this course (e.g., globalization of trade) can take a second version of the course (e.g., negotiation for international marketers) with prior permission.

**MKTG 5790 Internship in Marketing: 3 semester hours**

Prerequisites: Students must have completed and/or be enrolled in at least 6 credit hours of marketing electives and have consent of supervising faculty member and Area Coordinator. Students work in the field of Marketing where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. The student's program will be monitored by a Marketing faculty member with the student providing a formal report at the end of the project.

**MKTG 5795 Seminar In Marketing: 3 semester hours**

Prerequisites: MKTG 5700 This course addresses advanced problems in contemporary marketing. Topics may include, but are not limited to, marketing strategy, marketing communications and advertising, product management, consumer behavior, channels of distribution, international marketing, and marketing research.

**MKTG 5799 Individual Research in Marketing: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in marketing under the guidance of a specific professor.

## Courses

**MKTG 3700 Basic Marketing: 3 semester hours**

Prerequisites: ECON 1001, Junior standing and a 2.0 overall GPA. An examination of the character and importance of the marketing process, its essential functions and the institutions performing them. Attention is focused on the major policies (such as distribution, product, price, and promotion) which underlie the multifarious activities of marketing institutions and the managerial, economic, societal implications of such policies.

**MKTG 3710 Consumer Behavior: 3 semester hours**

Prerequisites: MKTG 3700, and a minimum overall GPA of 2.0. A study of such consumer functions as decision-making, attitude formation and change, cognition, perception, and learning. The marketing concepts of product positioning, segmentation, brand loyalty, shopping preference and diffusion of innovations are considered in context with the environmental, ethical, multicultural and social influences on an increasingly diverse American consumer.



**MKTG 3720 Management Of Promotion: 3 semester hours**

Prerequisite: MKTG 3700 and a 2.0 overall GPA. A study of the design, organization and implementation of the marketing "communications mix". Various methods such as advertising, personal selling, and publicity are analyzed as alternatives for use alone, or in combination to stimulate demand, reseller support, and buyer preference. Particular topics considered include: media selection, sales promotionals, packaging, selling strategy and their relationships in the promotion process.

**MKTG 3721 Introduction to Digital Marketing Strategies: 3 semester hours**

Prerequisites: MKTG 3700 and a minimum campus GPA of 2.0. This course explores the world of digital media marketing and how it impacts and is integrated along with our traditional marketing channels. We will explore how the balance of power has shifted between brands and consumers. Consumers are more active in the marketing process and in influencing how brands communicate with them than ever before. In particular we will explore: The latest digital marketing trends, how to build a strong website from an organic perspective, search strategies for success, website intelligence and tracking using Google Analytics, retaining customers via Email marketing, online Display advertising, social media strategy, affiliate marketing, mobile marketing trends and developing an integrated marketing plan.

**MKTG 3722 Introduction to Social Media Marketing: 3 semester hours**

Social networks are becoming an integral part of the marketing mix. In these platforms, brands can engage with prospects and consumers on many levels. In this course you will learn how to create a brand presence on these social networks, understand the differences between earned and paid media, be introduced to the various tools (free and paid) used to listen and engage with consumers, discuss how brands manage healthy communities, learn techniques used social media managers to identify influencers, and study the various ways engagement is measured including calculating social media return on investment. Social networks to be discussed throughout the semester will include Facebook, Twitter, Tumblr, Instagram, LinkedIn, etc. Students will also be introduced to the various social measurement tools including Netbase (our partner), HootSuite, TweetDeck, Sprinklr, Technorati, etc. Real life case examples will be used throughout the semester.

**MKTG 3738 Advertising Technique: 3 semester hours**

Same as MEDIA ST 3338. Prerequisites: MEDIA ST 1100 or MKTG 3700 or consent of instructor. Techniques for creating advertising messages and campaigns to reach target audiences. Focus on the process of persuasion, importance of advertising in modern economics, rationale for company advertisement, evaluation of advertising effectiveness, and assessment of advertising myths and truths. Practical application of messages and campaigns will be stressed.

**MKTG 3740 Marketing Analysis: 3 semester hours**

Prerequisites: INFSYS 1800, MKTG 3700, LOG OM 3300, and a 2.0 Overall GPA. An investigation of the acquisition, presentation, and application of marketing information for management. Particular problems considered are defining information requirements, evaluating research findings, and utilizing information. Statistical methods, models, and/or cases are employed to illustrate approaches to marketing intelligence problems, such as sales forecasts, market delineation, buyer motives, store location, and performance of marketing functions.

**MKTG 3750 Sales Management: 3 semester hours**

Prerequisites: MKTG 3700 and MGMT 3600. (MGMT 3600 may be taken concurrently). Also a minimum campus GPA of 2.0. The aim of this course is to provide an understanding of how selling is critical to the success of marketing. The course will promote critical thinking skills as well as practical selling skills needed in a competitive marketplace. Course topics include, among others, selling principles & techniques, understanding of the tasks and roles of the sales manager, the management of sales professionals within an organization, developing and applying effective persuasive communications, creating a vision, developing and implementing a sales-team strategy, structuring sales-force, designing and assigning territories, recruiting, training, motivation and evaluating salespeople, methods of compensation, and forecasting sales. The emphasis will be on ways the sales-force can be molded to build long-lasting relationships with customers through the systematic analysis and solution of customer's problems.

**MKTG 3760 Business To Business Marketing: 3 semester hours**

Prerequisites: Senior standing, MATH 1105, MKTG 3700 and a 2.0 overall GPA. A study of the nature of the business-to-business (organizational) marketplace, concentrating on those aspects that differentiate it from consumer markets. The major focus of the course is marketing strategy, starting with analysis of the market wants and segments, concepts of pricing, the distribution arrangements, and buyer/seller relations. In this last area, consideration will be given to service, personal selling, sales promotion, and advertising, as found in the organizational marketplace. At all times emphasis is given to relating business-to-business marketing strategy to basic concepts in underlying business disciplines. Lectures and case discussions are used heavily in the course.

**MKTG 3770 Introduction To Transportation: 3 semester hours**

Prerequisite: A minimum campus GPA of 2.0; also Junior standing or instructor consent. This course provides an overview of the transportation sector, including history, providers, users, and government regulation. The importance and significance of transportation, the operational aspects of transportation modes of rail, water, motor, air and pipeline; the demand and supply of transportation, and the managerial aspects of these modes of transport will be covered in the course.

**MKTG 3771 Traffic And Transportation Management: 3 semester hours**

Prerequisites: A minimum campus GPA of 2.0 and Junior standing or instructor's consent. This course focuses on the purchase of transportation and warehouse services and/or the operation of transportation services as a firm activity. This course is also designed to provide the student with an exposure to the managerial aspects of transportation management as a function of the firm's logistical strategy. In addition, it includes an introduction to the management of firms with the various transportation modes of rail, motor, air, water, and pipelines. This course is designed to provide the student with a basic understanding of the issues and work performed by traffic managers and the management of modern transportation firms.

**MKTG 3776 Transportation Security, Safety and Disaster Preparedness: 3 semester hours**

Prerequisites: Junior standing or instructor's consent. This course emphasizes security issues related to the nation's highway, aviation, pipeline, inland waterway, transit, and rail networks, as well as port facilities. This course provides an overview of transportation safety issues including passenger and employee safety and hazardous materials. Strategies to prepare for transportation-related disasters in addition to the transport of people and goods after terrorism events or natural disasters are also addressed.



**MKTG 3777 Aviation in American Life: 3 semester hours**

Prerequisites: Junior standing or instructor's consent. This course focuses on the history and business of aviation in the United States from balloon flights preceding the Wright brothers through the terrorist attacks in September 2001 with emphasis upon how aviation and aviators have influenced American society, culture. Themes include the evolution of aviation technology, the growth of the commercial/military aviation/aerospace industries, issues of race and gender in aviation, the development of America's commercial airlines, aviation's influence upon American art, films, advertising, and literature, the significance of the space race, and the role of aerial weapons of war.

**MKTG 3780 International Marketing: 3 semester hours**

Same as INTL BUS 3780. Prerequisites: MKTG 3700 and a 2.0 overall GPA. Marketing management problems, techniques and strategies needed to apply the marketing concept to the world marketplace. Understanding a country's cultural and environmental impact on the marketing plan is emphasized, as well as competing in markets of various cultures. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, and current economic and marketing issues are examined.

**MKTG 3785 Women in International Entrepreneurship: 3 semester hours**

Prerequisites: MKTG 3700; MKTG 3780 or INTL BUS 3780; and Junior standing. This course is an integration of international business and entrepreneurship, with a focus on women entrepreneurs. It is designed to help students learn how entrepreneurs create and grow their ventures internationally. We will examine how entrepreneurs search, evaluate, and exploit opportunities across national boundaries to market goods and services effectively. We will explore the unique circumstances faced by women entrepreneurs and the appropriate strategies developed in order to sustain international growth.

**MKTG 3787 Marketing in the European Union: 3 semester hours**

Same as INTL BUS 3787. Prerequisites: MKTG 3780 or instructor's permission. The European Union (EU) is both a major customer and major competitor of the United States. The inclusion of many of the Eastern European countries into the EU has added another challenge to our ability to trade in this area. The better we understand the people, institutions and policies of the EU, the better positioned we will be to conduct business effectively. This course will emphasize understanding the institutional structure that unites the European Union as well as the cultural and political diversity of its members, and provide insights into how business activity functions in the European Environment.

**MKTG 3790 Internship In Marketing: 1-3 semester hours**

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Marketing electives and have consent of supervising marketing instructor and Area Coordinator. A Business College GPA of 2.5 is also required. Students are employed in the field of Marketing where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Marketing faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BA 3790 may be counted toward the minimum credit hours of marketing electives required for a marketing emphasis.

**MKTG 3795 Special Administration Problems - Marketing: 1-10 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

**MKTG 3798 Seminar in Marketing: 1-3 semester hours**

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of marketing. May be repeated for credit with different topics.

**MKTG 3799 Independent Study In Marketing: 1-3 semester hours**

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in marketing under the supervision of a full-time marketing faculty member.

**MKTG 4700 Marketing Management: 3 semester hours**

Prerequisites: MATH 1105, MKTG 3700, three other marketing elective courses, senior standing, and a 2.0 campus GPA. An intensive analysis of major marketing decisions facing the firm, such as level, mix, allocation, and strategy of marketing efforts. Specific decision areas investigated include market determination, pricing, physical distribution, product policy, promotion, channel management, and buyer behavior. Competitive, political, legal, and social factors that may affect such areas of decisions are discussed. Cases, models, and problems are used heavily.

**MKTG 5700 Contemporary Marketing Concepts: 3 semester hours**

Prerequisite: BUS AD 5000. Designed for students with no prior course work in the field of marketing. A wide spectrum of marketing institutions and activities is covered. The impact of marketing on the total firm, the economy, and society in general is assessed. The course is intended to develop and organize the fundamental marketing concepts necessary to an analytical study of consumer behavior, the economic environment and four managerial aspects of marketing. The acquisition and utilization of marketing research data for problem solving is stressed. Relation and integration of basic marketing knowledge to the successful development of sound marketing policy, planning, and strategy is developed.

**MKTG 5701 Marketing Planning And Strategy: 3 semester hours**

Prerequisite: MKTG 5700. Emphasizes the development of a total marketing program through an analytical study of the marketing-mix, the diagnosis of the business situation, along with the influence of exogenous variables and the development of an effective overall marketing strategy. Stresses importance of an integrated marketing plan and utilizes modern decision-making tools. Supplementary readings, journal articles, and current periodicals are used to place the theoretical framework of the course into the contemporary environment of the market place.

**MKTG 5710 Consumer Motivation And Behavior: 3 semester hours**

Prerequisite: MKTG 5700. An analysis of the socio-psychological foundations of consumer behavior including personality differences, needs and wants, status symbols, social change and mobility, fads and fashions. Consumer spending and saving habits, product preferences, leisure-time patterns, shopping behavior and motivation research also are examined for their impact on advertising, selling and marketing management.

**MKTG 5720 Marketing Communications: 3 semester hours**

Prerequisite: MKTG 5700. Deals with managerial decision making by placing particular emphasis on assimilating and integrating all forms of marketing communication in the development of promotional policies, plans and procedures. Course approach is analytical rather than descriptive in investigating the areas of advertising, public relations, sales management, packaging and other forms of demand stimulation.

**MKTG 5730 Clinical Study in Digital and Social Media Marketing: 3 semester hours**

Prerequisites: MKTG 5721 or MKTG 5722 or consent of instructor if prior digital/social media experience. This course, in partnership with Capital Innovators, provides students the opportunity for experiential learning by directly applying classroom topics to the real world. Students will be paired up with a new startup business in their current class and, over the course of the semester, contribute to their digital and social media marketing strategies by assisting in specific project tasks. Other mutually agreed upon areas of responsibility may be assigned as necessary. This is not an internship but rather a project support based clinical course providing very valuable learning in the very vibrant entrepreneurial startup world. It will be instructor led with weekly class meetings.

**MKTG 5731 Special Seminar in Digital and Social Media Marketing: 3 semester hours**

Prerequisites: MKTG5721 or MKTG5722 or consent of instructor if prior digital/social media experience. In this course, the students will be attending three special 2- or 3-day seminars discussing focused topics in Digital and Social Media Marketing. Seminar topics include Mobile Strategy, Email Marketing, Blogs to Buzz, Online Display Advertising, and Strategic Search Engine Marketing. This course may be offered on a weekend schedule.

**MKTG 5740 Marketing And Business Research: 3 semester hours**

Prerequisites: MKTG 5700 and LOG OM 5300. A broad approach to marketing research as a model for acquiring, retrieving, and analyzing decision-making information. Includes market measurement, evaluation of sales and cost effectiveness, sales forecasting and primary marketing research studies aimed at solving specific problems. Emphasis is placed also on building a theoretical and analytical framework to provide flexibility in the design of marketing experiments and in judging recent research innovations.

**MKTG 5761 Business To Business Marketing: 3 semester hours**

The course provides graduate students with an understanding of the role of business to business marketing as it pertains to business, government, and institutional customers. The course places a heavy emphasis on buyer-seller interaction embodying business to business marketing. In addition to discussing the standard theories and covering the subject domain of business marketing, the course focuses on the finer aspects of business to business marketing negotiations using exercises and readings. Student groups enact complex industrial buyer-seller negotiations striving to achieve their respective organizational goals.

**MKTG 5770 Supply Chain Management Strategy: 3 semester hours**

Prerequisite: Consent of instructor. Course addresses supply chain management and its implications, with a focus on what firms can do to maintain competitiveness in the quickly changing business landscape. Topics may include, but are not limited to, value chain analyses, marketing business-to-business, supply chain analytics, procurement, production, logistics, and inventory management within supply chains.

**MKTG 5775 Domestic Transportation: 3 semester hours**

Domestic Transportation is the study of North American transportation modes, their management and operating characteristics. This graduate course is part of the Mid-West Transportation Consortium where UMSL, along with 5 other Universities, provides guest lectures that comment on aspects of transportation. UMSL students concentrate on the business aspects of transportation.

**MKTG 5780 Seminar In International Marketing: 3 semester hours**

Same as INTL BUS 5780. Prerequisite: MKTG 5700 An advanced seminar on topics in international or global marketing. Possible topics include the globalization of trade, export marketing, international market opportunity analysis, and negotiation for international marketers. Students who take one version of this course (e.g., globalization of trade) can take a second version of the course (e.g., negotiation for international marketers) with prior permission.

**MKTG 5790 Internship in Marketing: 3 semester hours**

Prerequisites: Students must have completed and/or be enrolled in at least 6 credit hours of marketing electives and have consent of supervising faculty member and Area Coordinator. Students work in the field of Marketing where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. The student's program will be monitored by a Marketing faculty member with the student providing a formal report at the end of the project.

**MKTG 5795 Seminar In Marketing: 3 semester hours**

Prerequisites: MKTG 5700 This course addresses advanced problems in contemporary marketing. Topics may include, but are not limited to, marketing strategy, marketing communications and advertising, product management, consumer behavior, channels of distribution, international marketing, and marketing research.

**MKTG 5799 Individual Research in Marketing: 1-3 semester hours**

Prerequisites: Consent of instructor and graduate director. Special individual research topics in marketing under the guidance of a specific professor.

## Music Education

### Courses

**MUS ED 3570 Curriculum And Methods Of Teaching Elementary School Music: 3 semester hours**

Prerequisites: THRY COM 2311 and THRY COM 2312 and Level I Education courses for the music education major. A study of the elementary school music curriculum emphasizing the objectives, methods of teaching and staffing music classes, and analysis of instructional materials and resources. This course must be completed in residence.

**MUS ED 3680 Curriculum And Methods Of Teaching Instrumental Music I: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, PRACTM 2510, PRACTM 2610, PDGOGY 1270, PDGOGY 1280. Level I Education courses. Concurrent registration in MUS ED 3570. A study of the teaching techniques, materials, curriculum, and organization of the beginning instrumental music education program. Topics include student recruitment the elementary band/orchestra, small group instruction, jazz ensemble, and marching band. This course must be completed in residence.

**MUS ED 3690 Curriculum and Methods of Secondary General Music: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, MUS ED 3570 and Level I Education courses. A study of the middle school/ junior high and high school general music program emphasizing a conceptually based curriculum: objectives, methodologies, materials, innovations, classroom organization and management. This course must be completed in residence.

**MUS ED 3700 Curriculum And Methods Of Teaching Instrumental Music II: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, PRACTM 3521, MUS ED 3570, MUS ED 3680. Level I Education courses. A continuation of MUS ED 3680. Topics include large group rehearsal techniques, program development, administrative procedures, and evaluation. This course must be completed in residence.

**MUS ED 3710 Curriculum And Methods Of Teaching Secondary Choral Music: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, MUS ED 3570. Level I Education courses. A study of the secondary school choral music program: curriculum, methods teaching techniques, organization, and administrative procedures for choral performance classes. This course must be completed in residence. Limited to music education majors.

**MUS ED 3770 An Introduction To Music For The Elementary School Teacher: 3 semester hours**

Prerequisite: None. An introduction to the elements of music and the expressive nature of music. Includes application of fundamentals to appropriate literature and activities for use with children in a classroom setting. This course will not apply toward requirements for a music major.

**MUS ED 4010 Marching Band Techniques: 3 semester hours**

Prerequisites: Junior standing or better. Techniques for organizing and training school marching bands. Content will include planning and charting shows, rehearsal problems, corps and traditional styles, and auxiliary units.

**MUS ED 4060 Advanced Workshop In Music Education: 1-5 semester hours**

Prerequisites: Junior standing and consent of instructor An intensive variable-topic workshop in Music Education presenting knowledge and skills to supplement specific areas in existing courses.

**MUS ED 5060 Graduate Workshop In Music Education: 1-5 semester hours**

Prerequisites: Graduate standing and consent of instructor Intensive workshop in Music Education. Variable topics. To gain skills and knowledge in specific areas not readily available in existing courses.

**MUS ED 5510 Graduate Instrumental Methods: 3 semester hours**

Prerequisites: Graduate standing in music Development of objectives for instrumental programs and methods of achieving those objectives. Comprehensive musicianship through instrumental performance, analysis of instrumental literature, instrument philosophies and methodologies, rehearsal organization, and recent research in instrumental music education will be discussed.

**MUS ED 5610 Graduate Choral Methods: 3 semester hours**

Prerequisites: Graduate standing in music Development of objectives for choral programs and methods of achieving those objectives. Comprehensive musicianship through choral performance, analysis of choral literature, the changing voice, choral philosophies and methodologies, rehearsal organization, and recent research in choral music education will be discussed.

**MUS ED 5620 Guitar In The Classroom: 3 semester hours**

Prerequisites: Graduate Standing in Music A study of guitar instruction in grades 5-12 with a focus on curricular sequence that includes chords, strums and picking patterns essential for song accompaniment skill development. Current materials, suitable for upper elementary and secondary students will be explored.

**MUS ED 5710 General Music: A Model For Multi-Faceted Learning: 3 semester hours**

Prerequisite: Graduate Standing In Music. An Exploration Of The General Music Class As A Learning Laboratory Model Designed To Actively Engage The Learner In A Series Of Comprehensive Music Learning Experiences. Emphasizes Techniques And Materials That Will Motivate The "Non-Performance Oriented" Student.

**MUS ED 5750 Computer Applications in Music Education: 3 semester hours**

Prerequisites: Graduate standing in Music. An examination of the potential of computers in the music education field. Experiences with available hardware and software suitable for applications that include inventory, budget, music library cataloging, digital music synthesis, digital music recording and editing, music-related graphics and basic animation with music soundtracks.

**MUS ED 5760 Multimedia in Music Education: 3 semester hours**

Prerequisites: Graduate standing in Music. The development and use of interactive instructional multi-media materials for K-12 or collegiate settings. Platforms used will include presentation software and interactive whiteboard software/hardware.

**MUS ED 5770 Music Notation Software for Music Educators: 3 semester hours**

Prerequisite: Graduate standing in music. The in-depth study of a complex music notation program. The course will include various modes of notation entry, playback, music formatting and printing, MIDI-related and graphic-related functions, and the creation of music performance accompaniment and assessment files.

**MUS ED 5800 Musical Acoustics: 3 semester hours**

Prerequisite: Graduate standing in music The acoustical properties of the human voice, acoustic and electronic musical instruments, rehearsal rooms and performance spaces. Applications for musicians/teachers in the choice, design and acoustical treatment of rehearsal/performance space, requirements and techniques for quality music recordings and the use of acoustic principles in the design of original classroom musical instruments.

**MUS ED 5810 Foundations Of Music Education: 3 semester hours**

Prerequisite: Graduate standing in music. A study of the historical, philosophical, and psychological foundations of music education, includes principles necessary for development, implementation, and evaluation of total school music program.

**MUS ED 5830 Contemporary Music Education: 3 semester hours**

Prerequisite: Graduate Standing In Music. A Study Of Recent Trends And Issues In Music Education.

**MUS ED 5840 Problems Of Urban Music Education: 3 semester hours**

Prerequisite: Graduate standing in music. An analysis of current practices, problems, trends, and research involved in developing strategies for the improvement of music programs in inner-city schools.

**MUS ED 5910 Music Education Research: 3 semester hours**

Prerequisite: Graduate standing in music. Applications of various approaches in defining and analyzing research problems in music education. Historical, experimental, descriptive, and philosophical research will be included.

**MUS ED 5920 Psychology Of Music: 3 semester hours**

Prerequisite: MUS ED 5810 and MUS ED 5910. Identify and discuss important trends within the field of psychology of music focusing specifically on applying Cognitive Psychology to music learning, perception, and performance.



**MUS ED 5950 Special Problems In Music Education: 1-3 semester hours**

Prerequisite: Graduate Standing In Music. Selected Problems To Meet The Needs Of the Individual Student.

**MUS ED 5990 Master's Project In Music Education: 3 semester hours**

Prerequisite: Graduate standing in music. A project utilizing historical, experimental, philosophical, descriptive, or analytical research techniques. The project will include a written report.

## Courses

**MUS ED 3570 Curriculum And Methods Of Teaching Elementary School Music: 3 semester hours**

Prerequisites: THRY COM 2311 and THRY COM 2312 and Level I Education courses for the music education major. A study of the elementary school music curriculum emphasizing the objectives, methods of teaching and staffing music classes, and analysis of instructional materials and resources. This course must be completed in residence.

**MUS ED 3680 Curriculum And Methods Of Teaching Instrumental Music I: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, PRACTM 2510, PRACTM 2610, PDGOGY 1270, PDGOGY 1280. Level I Education courses. Concurrent registration in MUS ED 3570. A study of the teaching techniques, materials, curriculum, and organization of the beginning instrumental music education program. Topics include student recruitment the elementary band/orchestra, small group instruction, jazz ensemble, and marching band. This course must be completed in residence.

**MUS ED 3690 Curriculum and Methods of Secondary General Music: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, MUS ED 3570 and Level I Education courses. A study of the middle school/ junior high and high school general music program emphasizing a conceptually based curriculum: objectives, methodologies, materials, innovations, classroom organization and management. This course must be completed in residence.

**MUS ED 3700 Curriculum And Methods Of Teaching Instrumental Music II: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, PRACTM 3521, MUS ED 3570, MUS ED 3680. Level I Education courses. A continuation of MUS ED 3680. Topics include large group rehearsal techniques, program development, administrative procedures, and evaluation. This course must be completed in residence.

**MUS ED 3710 Curriculum And Methods Of Teaching Secondary Choral Music: 2 semester hours**

Prerequisites: THRY COM 2311, THRY COM 2312, MUS ED 3570. Level I Education courses. A study of the secondary school choral music program: curriculum, methods teaching techniques, organization, and administrative procedures for choral performance classes. This course must be completed in residence. Limited to music education majors.

**MUS ED 3770 An Introduction To Music For The Elementary School Teacher: 3 semester hours**

Prerequisite: None. An introduction to the elements of music and the expressive nature of music. Includes application of fundamentals to appropriate literature and activities for use with children in a classroom setting. This course will not apply toward requirements for a music major.

**MUS ED 4010 Marching Band Techniques: 3 semester hours**

Prerequisites: Junior standing or better. Techniques for organizing and training school marching bands. Content will include planning and charting shows, rehearsal problems, corps and traditional styles, and auxiliary units.

**MUS ED 4060 Advanced Workshop In Music Education: 1-5 semester hours**

Prerequisites: Junior standing and consent of instructor An intensive variable-topic workshop in Music Education presenting knowledge and skills to supplement specific areas in existing courses.

**MUS ED 5060 Graduate Workshop In Music Education: 1-5 semester hours**

Prerequisites: Graduate standing and consent of instructor Intensive workshop in Music Education. Variable topics. To gain skills and knowledge in specific areas not readily available in existing courses.

**MUS ED 5510 Graduate Instrumental Methods: 3 semester hours**

Prerequisites: Graduate standing in music Development of objectives for instrumental programs and methods of achieving those objectives. Comprehensive musicianship through instrumental performance, analysis of instrumental literature, instrumentl philosophies and methodologies, rehearsal organization, and recent research in instrumental music education will be discussed.

**MUS ED 5610 Graduate Choral Methods: 3 semester hours**

Prerequisites: Graduate standing in music Development of objectives for choral programs and methods of achieving those objectives. Comprehensive muscianship through choral performance, analysis of choral literature, the changing voice, choral philosophies and methodologies, rehearsal organization, and recent research in choral music education will be discussed.

**MUS ED 5620 Guitar In The Classroom: 3 semester hours**

Prerequisites: Graduate Standing in Music A study of guitar instruction in grades 5-12 with a focus on curricular sequence that includes chords, strums and picking patterns essential for song accompaniment skill development. Current materials, suitable for upper elementary and secondary students will be explored.

**MUS ED 5710 General Music: A Model For Multi-Faceted Learning: 3 semester hours**

Prerequisite: Graduate Standing In Music. An Exploration Of The General Music Class As A Learning Laboratory Model Designed To Actively Engage The Learner In A Series Of Comprehensive Music Learning Experiences. Emphasizes Techniques And Materials That Will Motivate The "Non-Performance Oriented" Student.

**MUS ED 5750 Computer Applications in Music Education: 3 semester hours**

Prerequisites: Graduate standing in Music. An examination of the potential of computers in the music education field. Experiences with available hardware and software suitable for applications that include inventory, budget, music library cataloging, digital music synthesis, digital music recording and editing, music-related graphics and basic animation with music soundtracks.

**MUS ED 5760 Multimedia in Music Education: 3 semester hours**

Prerequisites: Graduate standing in Music. The development and use of interactive instructional multi-media materials for K-12 or collegiate settings. Platforms used will include presentation software and interactive whiteboard software/hardware.



**MUS ED 5770 Music Notation Software for Music Educators: 3 semester hours**

Prerequisite: Graduate standing in music. The in-depth study of a complex music notation program. The course will include various modes of notation entry, playback, music formatting and printing, MIDI-related and graphic-related functions, and the creation of music performance accompaniment and assessment files.

**MUS ED 5800 Musical Acoustics: 3 semester hours**

Prerequisite: Graduate standing in music The acoustical properties of the human voice, acoustic and electronic musical instruments, rehearsal rooms and performance spaces. Applications for musicians/teachers in the choice, design and acoustical treatment of rehearsal/performance space, requirements and techniques for quality music recordings and the use of acoustic principles in the design of original classroom musical instruments.

**MUS ED 5810 Foundations Of Music Education: 3 semester hours**

Prerequisite: Graduate standing in music. A study of the historical, philosophical, and psychological foundations of music education, includes principles necessary for development, implementation, and evaluation of total school music program.

**MUS ED 5830 Contemporary Music Education: 3 semester hours**

Prerequisite: Graduate Standing In Music. A Study Of Recent Trends And Issues In Music Education.

**MUS ED 5840 Problems Of Urban Music Education: 3 semester hours**

Prerequisite: Graduate standing in music. An analysis of current practices, problems, trends, and research involved in developing strategies for the improvement of music programs in inner-city schools.

**MUS ED 5910 Music Education Research: 3 semester hours**

Prerequisite: Graduate standing in music. Applications of various approaches in defining and analyzing research problems in music education. Historical, experimental, descriptive, and philosophical research will be included.

**MUS ED 5920 Psychology Of Music: 3 semester hours**

Prerequisite: MUS ED 5810 and MUS ED 5910. Identify and discuss important trends within the field of psychology of music focusing specifically on applying Cognitive Psychology to music learning, perception, and performance.

**MUS ED 5950 Special Problems In Music Education: 1-3 semester hours**

Prerequisite: Graduate Standing In Music. Selected Problems To Meet The Needs Ofthe Individual Student.

**MUS ED 5990 Master's Project In Music Education: 3 semester hours**

Prerequisite: Graduate standing in music. A project utilizing historical, experimental, philosophical, descriptive, or analytical research techniques. The project will include a written report.

## Military and Veterans Studies

### Courses

**MVS 2100 Introduction to Veterans Studies: 3 semester hours**

Prerequisite: ENGL 1100, ENGL 1110 or HONORS 1100. With a focus on the American veteran experience, this survey course will explore basic concepts, ideas and research into veterans and veteran institutions. In a multidisciplinary manner, we will examine military culture, the unique status of veterans in our society, and veteran institutions. We will study the successes, challenges and obligations our society faces related to its veteran community.

**MVS 2130 Gender and the Military: 3 semester hours**

Same As GS 2130. This course examines the treatment of gender difference in the military and focuses on the complex intersection between military culture and social constructs of gender in the civilian world.

**MVS 3500 Internship in Veterans Studies: 1-3 semester hours**

Prerequisites: Junior Standing and consent of the department chair. Independent study involving regular on-site work with an appropriate public or private agency serving the veteran community. A written report reflecting on the experience is required. Course may be repeated for a maximum of 6 credit hours.

**MVS 4100 Veterans Studies Capstone Seminar: 3 semester hours**

Prerequisites: MVS 2100 and senior standing. Mentored by a faculty member, students in this course will apply insights gained from previous coursework into a substantial Veterans Studies project. Students will work with the instructor and the class to develop a topic, establish a research or project plan, then prepare a project or paper suitable for presentation to the public. Students should expect that their work will be published or presented at an end-of-the-year symposium. This is not an independent study.

**MVS 4200 Independent Study in Military and Veterans Issues: 1-3 semester hours**

Prerequisite: Consent of instructor. Faculty mentored, independent study through readings, reports, or field research. No student may take more than a cumulative total of 6 hours of Independent Study.

### Courses

**MVS 2100 Introduction to Veterans Studies: 3 semester hours**

Prerequisite: ENGL 1100, ENGL 1110 or HONORS 1100. With a focus on the American veteran experience, this survey course will explore basic concepts, ideas and research into veterans and veteran institutions. In a multidisciplinary manner, we will examine military culture, the unique status of veterans in our society, and veteran institutions. We will study the successes, challenges and obligations our society faces related to its veteran community.

**MVS 2130 Gender and the Military: 3 semester hours**

Same As GS 2130. This course examines the treatment of gender difference in the military and focuses on the complex intersection between military culture and social constructs of gender in the civilian world.

**MVS 3500 Internship in Veterans Studies: 1-3 semester hours**

Prerequisites: Junior Standing and consent of the department chair. Independent study involving regular on-site work with an appropriate public or private agency serving the veteran community. A written report reflecting on the experience is required. Course may be repeated for a maximum of 6 credit hours.

**MVS 4100 Veterans Studies Capstone Seminar: 3 semester hours**

Prerequisites: MVS 2100 and senior standing. Mentored by a faculty member, students in this course will apply insights gained from previous coursework into a substantial Veterans Studies project. Students will work with the instructor and the class to develop a topic, establish a research or project plan, then prepare a project or paper suitable for presentation to the public. Students should expect that their work will be published or presented at an end-of-the-year symposium. This is not an independent study.

**MVS 4200 Independent Study in Military and Veterans Issues: 1-3 semester hours**

Prerequisite: Consent of instructor. Faculty mentored, independent study through readings, reports, or field research. No student may take more than a cumulative total of 6 hours of Independent Study.

# Nursing

## Courses

### ***NURSE 1010 Orientation To Nursing: 0 semester hours***

Prerequisites: Admission to four-year baccalaureate program. This mandatory eight-week introduction to the nursing program provides a comprehensive orientation to the program. Students are introduced to the academic and clinical expectations of the curriculum. Concerns critical for academic success (i.e., time management, effective study skills, stress management and dealing with test anxiety) are addressed.

### ***NURSE 2101 Introduction to Nursing: 2 semester hours***

This course introduces the historical and theoretical development of nursing as a discipline. Nursing is examined as a dynamic practice profession. Variables that influence nursing and health care are discussed. Concepts and skills introduced in this course guide the student's educational experience within the nursing major.

### ***NURSE 2103 Nutrition And Health: 3 semester hours***

This course examines nutritional needs throughout the life span with emphasis on nutritional principles related to health promotion and protection. Content includes assimilation, digestion and absorption of nutrients and cultural and economic influences on dietary practices.

### ***NURSE 2105 Communication In The Nursing Profession: 3 semester hours***

Prerequisites: none This course focuses on the development of communication abilities utilized in professional nursing. The individual's relationship with self, others and groups is discussed. Students learn verbal and non-verbal communication skills, self-awareness, and sensitivity to others. Interpersonal skills are introduced to enable the student to develop effective human caring relationships with a diverse population of clients and colleagues.

### ***NURSE 3101 Nursing And Health: 6 semester hours***

Prerequisites: BIOL 1131; BIOL 1141; CHEM 1052; NURSE 1010, NURSE 3106; NURSE 3110; NURSE 3111 An introduction to the discipline of nursing, the historical and theoretical development of nursing is explored with an emphasis on critical thinking, the teaching/learning process, and foundational practice concepts. Through modular laboratory experiences, the student acquires psychomotor skills to provide safe and effective nursing care to clients promoting health and wellness. Includes classroom, laboratory and clinical experiences.

### ***NURSE 3106 Assessment Of Clients In Health And Illness: 4 semester hours***

Prerequisites: BIOL 1131; BIOL 1141; BIOL 1162; CHEM 1052; PSYCH 1268; NURSE 1010. This course integrates theoretical knowledge and interpersonal skills in the assessment of clients, focusing on differentiating normal from abnormal findings. It emphasizes the use of problem solving, critical thinking and cultural competency in identifying multidimensional health variations across the life span. The course includes classroom and laboratory experiences.

### ***NURSE 3110 Pathophysiological Bases Of Nursing Practice: 3 semester hours***

Prerequisites: BIOL 1131, BIOL 1141, BIOL 1162, CHEM 1052 (or equivalent); NURSE 1010 This course focuses on the nature of disease, its causes and the bodily changes that accompany it. The course includes a study of general principles of disease, specific diseases of individual organs and systems and the clinical implications.

### ***NURSE 3111 Pharmacotherapeutics In Nursing Practice: 3 semester hours***

Prerequisites: BIOL 1141, BIOL 1162, CHEM 1052, NURSE 1010; pre/co requisite: NURSE 3110. This course introduces key terminology, legal foundations, general principles and clinical applications of pharmacology.

### ***NURSE 3120 Foundations of Nursing: 7 semester hours***

Prerequisites: All general education requirements and accelerated nursing option prerequisite non-nursing courses. This course introduces the student to the theoretical concepts and foundations of professional nursing practice. Utilizing an integrated approach, health promotion and protection throughout the lifespan are explored and supported using theories of nursing practice, health assessment of well individuals, and general principles and concepts of pharmacology and critical thinking.

### ***NURSE 3121 Clinical Foundations of Nursing: 3 semester hours***

Prerequisites: NURSE 3120. This course assists in the development and application of clinical reasoning in the lab, clinical agency, and simulation environments. Through clinical learning experiences, the student acquires basic psychomotor, communication, and medication administration skills. The student applies these skills in the provision of safe and effective nursing care to clients while promoting health, wellness, and clinical reasoning.

### ***NURSE 3205 Adult Health Nursing I: 5 semester hours***

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on the nursing care of the adult experiencing selected pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to immune responses, problems of oxygenation: ventilation, transport and perfusion: kidney function; regulatory mechanisms and digestion absorption and elimination. emphasis is placed on health restoration, maintenance and support as well as the continued development of the nurse-client relationship, critical thinking processes, and research-based nursing practice. This course includes classroom and clinical activities in a variety of settings.

### ***NURSE 3206 Adult Health Nursing II: 5 semester hours***

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on the nursing care of the adult experiencing selected pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to endocrine, sensory-perceptual, gynecological, and genitourinary functions. Emphasis is placed on health restoration, maintenance and support as well as the continued development of the nurse-client relationship, critical thinking processes, and research-based nursing practice. This course includes classroom and clinical activities in a variety of settings.

### ***NURSE 3214 Psychiatric Mental Health Nursing: 4 semester hours***

Prerequisites: All 3100-level nursing courses; PSYCH 1268. This course focuses on health and illness across the lifespan of clients who have acute and chronic emotional and psychosocial difficulties and psychiatric illnesses. The course emphasizes development of students' decisional capabilities, self-awareness and professional behaviors as they utilize theory and research from nursing, psychology and related disciplines for the provision of nursing care to individuals, families, & groups. Clinical experiences in community and acute care settings are designed for students to engage in individual and group strategies that promote and maintain mental health. Course includes classroom and clinical activities in a variety of settings.

***NURSE 3215 Nursing Of Women And Childbearing Families: 4 semester hours***

Prerequisites: All 3100 level nursing courses, PSYCH 1268. Focuses on the childbearing family and women's reproductive health, including family dynamics and growth and development. Health promotion, protection, maintenance and restoration are covered in experiences that include hospital and community settings. Health care policy and systems as relevant to these populations are included. Course includes classroom and clinical activities in a variety of settings.

***NURSE 3216 Child And Family Health Nursing: 4 semester hours***

Prerequisites: All 3100 level nursing courses, PSYCH 1268. This course focuses on pediatric health and illness with emphasis on family dynamics, growth and development and communication with children and their families. Health promotion, protection, restoration, maintenance and support concepts are covered in experiences that include hospital and community settings. Health care policy and systems are studied as relevant to this population. Course includes classroom and clinical activities in a variety of settings.

***NURSE 3324 Sociology Of The Family: 3 semester hours***

Same as SOC 3224. Prerequisite: SOC 1010 or consent of instructor. The study of patterns of close relationships, and how these relationships are influenced by larger social forces. Topics include: love, dating, mate selection, cohabitation, alternative lifestyles, working families, parenting, single mothers, families in crisis, domestic violence, and divorce. Universal and variable aspects of family organization, family role systems, and changes in family social structure.

***NURSE 3330 Nursing of Adults I: 5 semester hours***

Prerequisites: NURSE 3120, NURSE 3121. This course focuses on the nursing care of the adult experiencing health problems affecting body regulatory mechanisms. These mechanisms are related to perioperative processes, immune processes, problems of oxygenation, cardiovascular alterations, fluid and electrolyte/acid-base imbalances, integumentary problems, abnormalities of the reproductive system and genetics, oncology and hematology problems. This course also incorporates relevant concepts of pharmacology and pathophysiology related to these conditions. Emphasis is placed on health promotion and restoration, maintenance and support as well as the continued development of the nurse-client relationship, clinical reasoning, and evidence-based nursing practice across the adult life span.

***NURSE 3331 Clinical Nursing of Adults I: 3 semester hours***

Prerequisites: NURSE 3330. This course focuses on the nursing care of adults in the lab, clinical agency, and simulation environments. Utilizing an integrated approach, advanced nursing skills and assessment techniques for adult clients are mastered in perioperative processes, immune processes, problems of oxygenation, hematology, cardiovascular alterations, fluid and electrolyte/acid-base imbalances, integumentary problems, abnormalities of the reproductive system, genetics and oncology problems. Clinical reasoning is developed and applied in order to provide safe and effective nursing care to adult clients across the health/illness continuum.

***NURSE 3340 Behavioral Health Nursing: 2.5 semester hours***

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on health and illness across the lifespan of clients who have acute and chronic psychosocial and behavioral health issues and specific psychiatric illnesses. An emphasis is placed on the nurse/client relationship in behavioral health promotion, restoration, maintenance and support.

***NURSE 3341 Clinical Behavioral Health Nursing: 1.5 semester hour***

Prerequisites: NURSE 3340. In this course students utilize theory and evidence from nursing and related disciplines in the provision of nursing care to individuals, families, and groups with psychiatric and behavioral health problems. Clinical experiences in community and acute care settings are designed so that students can engage in individual and group strategies that promote and maintain mental health.

***NURSE 3350 Nursing of Adults II: 5 semester hours***

Prerequisites: NURSE 3120, NURSE 3121. This course focuses on the nursing care for the adult experiencing complex pathophysiologic processes affecting body regulatory mechanisms. These mechanisms are related to endocrine, neurological, musculoskeletal, gastrointestinal, sensory-perceptual, male reproductive and genitourinary problems. This course also incorporates relevant concepts of pathophysiology and pharmacology related to these conditions. Emphasis is placed on health promotion and restoration, maintenance and support, as well as the continued development of the nurse-client relationship, critical thinking and evidence-based nursing practice across the adult life span.

***NURSE 3351 Clinical Nursing of Adults II: 3 semester hours***

Prerequisites: NURSE 3350. This course focuses on the nursing care of adults in the lab, clinical agency and simulation environments. Utilizing an integrated approach, complex psychomotor skills and assessment techniques for adult clients are mastered in patients with musculoskeletal problems, endocrine alterations, renal/genitourinary problems, sensory-perceptual problems, and liver problems. Clinical reasoning is developed and applied in order to provide safe and effective nursing care to adult clients with complex problems across the health/illness continuum.

***NURSE 3360 Maternal-Child Nursing: 5 semester hours***

Prerequisites: PSYCH 1268, NURSE 3120, NURSE 3121. This course focuses on women's reproductive health, childbearing and child rearing families, as well as the health and illness of children from conception through adolescence. There is an emphasis on family dynamics, growth and development, and communication with children and their families. Health care policy and systems are incorporated as they relate to diverse populations.

***NURSE 3361 Clinical Maternal-Child Nursing: 3 semester hours***

Prerequisites: NURSE 3360. Health promotion, protection, restoration, and maintenance for the mother-child and family care are addressed in experiences that include nursing skills lab, hospital agency and a variety of community settings.

***NURSE 3799 Quantitative Analysis In The Health Sciences: 3 semester hours***

Prerequisites: MATH 1030 or equivalent. This course focuses on concepts and applications of statistics in the health sciences. Topics include descriptive and inferential statistics, probability distributions of random variables, sampling and estimation. The course uses examples and content from health sciences to provide the basic concept structure for quantitative analysis.

***NURSE 3804 Ethical And Legal Dimensions Of Nursing Practice: 3 semester hours***

Prerequisites: Philosophy (3 credits). This course explores the ethical and legal dimensions of nursing practice. The relationship between ethical and legal issues is examined within nursing situations. The student participates in dialogue addressing ethical-legal issues in professional nursing practice to explore personal values, increase sensitivity to others and to develop ethical reasoning abilities.



***NURSE 3807 Nursing Research - Evidence Based Nursing Practice: 3 semester hours***

Prerequisite: NURSE 3799 (or equivalent). This course prepares nurses to provide evidence based care to patients among the rapid advances in the science and technology of healthcare. This course provides a basic understanding of how evidence is developed, including the research process, clinical judgment, interprofessional perspectives, and patient preference as applied to nursing practice. Students will learn a systematic method to evaluate and apply research findings and other evidence in designing and implementing nursing care that is multidimensional, high quality, and cost-effective.

***NURSE 3808 Management And Leadership In Nursing: 2-3 semester hours***

Prerequisites: All 3000 level nursing courses; ECON 1000 or (equivalent) This course prepares the nurse to coordinate and manage client care in diverse health care settings. Emphasis is placed on leadership and management theory and related skills, collaboration, delegation, coordination, and evaluation of multi-disciplinary work and the application of outcome-based nursing practice.

***NURSE 3817 Introduction To Nursing And Health Informatics: 3 semester hours***

This online laboratory course establishes competency in fundamental information management and computer technology skills. It enables students to use existing information systems and available information to manage nursing practice. Students critically evaluate technology, information, and its sources; use decision support systems designed for clinical decision making; and focus on the representation of nursing data, information, and knowledge.

***NURSE 3820 Introduction to Evidence-Based Nursing Practice and Informatics: 5 semester hours***

Prerequisites: NURSE 3799 or equivalent statistics course. This course will focus on current review of qualitative and quantitative nursing literature and research utilization through evidence-based practice and establish competency in fundamental information management and technology. Students will examine the research and evidence-based process through analysis and critique of nursing literature; critically evaluate technology, information, and its sources; use decision support systems designed for clinical and ethical decision making; and focus on the presentation of nursing data, information, and knowledge.

***NURSE 3873 Guided Study In Nursing: 1-3 semester hours***

This course is an in-depth independent study of selected topics in nursing under the guidance of a specific instructor. No more than six hours may be taken under this option.

***NURSE 3900 Dimensions Of Professional Nursing: 3 semester hours***

Prerequisites: Admission to the College as RN This course investigates the roles and responsibilities of the professional nurse within a rapidly changing health care delivery system. Key issues are explored with emphasis on health promotion and health. Graduates of diploma nursing programs will be awarded college credit for successful validation of basic nursing knowledge as part of this course.

***NURSE 3920 Health Assessment: 3 semester hours***

Prerequisites: NURSE 3900 and NURSE 3817 (may be taken concurrently) or consent of instructor This laboratory course focuses on the knowledge, communication abilities, and technical skills necessary for comprehensive assessment of individuals of all ages.

***NURSE 4300 Community Health Nursing: 4 semester hours***

Prerequisites: All 3000 level nursing courses This course provides a conceptual foundation for nursing that recognizes the community as client in society. The course examines socioeconomic, environmental, epidemiological, and legislative influences, ethical/legal issues, and the impact of health beliefs and practices on health promotion and protection in communities and society. The student applies various theories and concepts when encountering families, groups and communities with diverse value systems and cultural backgrounds. Course includes classroom and clinical activities in a variety of settings.

***NURSE 4310 Senior Synthesis: 6 semester hours***

Prerequisites: All 3000 level nursing courses; NURSE 4300 and NURSE 3808 may be taken concurrently. This course integrates theory and practice from previous nursing and general education courses with the goal of preparing the student for entry into professional nursing practice. Within a seminar context, students explore a variety of clinical and professional nursing topics. The course includes research-based strategies utilized for health promotion and protection, health restoration, maintenance and support. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems. Course includes classroom and clinical experiences in a variety of settings. Not for graduate credit.

***NURSE 4520 Population Focused Nursing: 2 semester hours***

Prerequisites: All 3300 level nursing courses, NURSE 3804, NURSE 3820. This course provides a conceptual foundation for nursing that recognizes populations in society. The course examines the effect of socioeconomic and environmental, epidemiological factors, and the impact of health beliefs and practices on health promotion and protection in populations. This course also focuses on epidemiological factors and legislative influences in diverse populations.

***NURSE 4521 Clinical Population Focused Nursing: 2 semester hours***

Prerequisites: NURSE 4520. This clinical course focuses on the nursing care of populations in various settings. The student applies population-based theories and concepts when encountering individuals, families, groups and populations with diverse value systems and cultural backgrounds.

***NURSE 4530 Leadership Development and Professional Nursing Practice: 4 semester hours***

Prerequisites: All 3300 level nursing courses, NURSE 3804, NURSE 3820. This course integrates theory and practice from previous nursing and general education courses with the goal of preparing the student for entry into professional nursing practice. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems. Topics will include leadership, management theory and related skills, collaboration, delegation, coordination, and evaluation of outcome based interdisciplinary nursing practice.

***NURSE 4531 Clinical Leadership Development and Professional Nursing Practice: 4 semester hours***

Prerequisites: NURSE 4530. This clinical course includes a variety of experiences to prepare the student nurse to lead, coordinate, and manage client care in diverse health care settings. This course includes research-based strategies utilized for health promotion and protection, health restoration, maintenance, and support. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems.

***NURSE 4720 Perioperative Nursing: 3 semester hours***

PREREQUISITES: Consent of the instructor. Provides experiences in preoperative, intraoperative, and postoperative settings. Includes a clinical component.



**NURSE 4722 Transcultural Nursing: 3 semester hours**

Prerequisite: Consent of the Instructor. Examines transcultural nursing concepts, theories and practices in relationship to human caring. Focuses on application and analysis of health care and scope of practice within selected cultural contexts. Includes practicum experiences.

**NURSE 4723 Nurse Externship: 3 semester hours**

Prerequisite: Senior level status; GPA 3.0 (4.0 scale) This course provides the opportunity to apply theoretical and conceptual knowledge and skills in a structured clinical environment under the guidance of a mentor.

**NURSE 4724 Emergency/Trauma Nursing: 3 semester hours**

Prerequisites: NURSE 3205 and NURSE 3206 or consent of instructor. This course provides a framework for the roles and responsibilities of the professional registered nurse in Emergency and Trauma nursing care.

**NURSE 4726 Parish Nursing: 3 semester hours**

Prerequisites: All 2000 level nursing courses, NURSE 3205 and NURSE 3214. This course provides a conceptual foundation that recognizes a speciality of nursing practice that combines professional nursing and health ministry. It examines four major concepts: professionalism; health and wholeness; spirituality; and community as it relates to culture and diversity. The course includes classroom discussion, individual reflection and community based learning experiences.

**NURSE 4730 Nursing Care At The End Of Life: 3 semester hours**

Prerequisites for Nursing Students NURSE 3205 and NURSE 3214. All others by consent of instructor. This course focuses on the nursing care of terminally ill patients and their families. Topics explored will include the impact of personal values and beliefs about death, physiology of end stage disease processes, symptom assessment and management, psychosocial and spiritual support, consideration in special patient populations, societal issues and trends in end of life care, ethical considerations in caring for the dying patient, grief and bereavement processes, and the role nursing in end of life care across settings.

**NURSE 4741 Advanced Nrsng Assmt & Mgt Of Clients W/Cardiac Dysrhythmias: 3 semester hours**

PREREQUISITES: Senior status Focuses on advanced nursing assessment and management of clients with cardiac rhythm problems and conduction disturbances. Includes a clinical component.

**NURSE 4742 Critical Care Nursing Of The Adult: 3 semester hours**

Prerequisites: RN or completion of NURSE 3205 and NURSE 3206 (or equivalent). Focuses on health restoration, health maintenance, and health support of individuals with dysfunctions or trauma to major organ systems. Emphasis is on understanding pathophysiology and psychosocial processes related to nursing and collaborative interventions, and the development of a functional framework for data organization and analysis.

**NURSE 4901 Family And Community Nursing: 5 semester hours**

Prerequisites: NURSE 3900, NURSE 3817 and NURSE 3920 This practicum course introduces the concepts, principles, skills, and professional nursing roles essential to practice community-based professional nursing with families and groups.

**NURSE 4905 Values In Professional Nursing: 3 semester hours**

Prerequisites: All 3000 level RN/BSN nursing courses or consent of instructor Explores values and beliefs as they shape professional nursing practice and influence clinical decision making and interventions in the evolving health care system. Attention is given to the impact of sociocultural factors and health/illness beliefs and practices of the diverse populations served by the professional nurse. Students examine their own understanding of the moral nature of professional nursing within the context of a diverse society.

**NURSE 4911 Synthesis In Nursing Practice: 5 semester hours**

Prerequisites: NURSE 4901. This practicum course focuses on community-based application and synthesis of professional nursing roles and responsibilities with selected populations determined to be at risk for a variety of health related problems. The course includes assessment of cognitive and affective growth achieved while in the BSN Completion Program.

**NURSE 6000 Statistics in Nursing & Health Sciences: 3 semester hours**

Prerequisites: Admission to graduate study in nursing or consent of instructor. Provides students with a graduate level understanding of quantitative methods and their relationship to research in nursing and health sciences. Students will conduct lab data analysis based on the topics covered in the class and learn how to generate specific research questions and conduct basic statistical analysis.

**NURSE 6106 Policy, Organization And Financing In Health Care: 3 semester hours**

Prerequisites: Admission to MSN program. This course presents an overview of health care policy, organization, and financing with emphasis on current health care trends. The focus is on the design and implementation of health care delivery systems with the goal of providing safe, quality, and informatics driven cost-effective care. Emphasis is placed on the development of a leadership role in managing human, financial, and physical health care resources. The format includes pertinent information concerning primary health care and public health issues, the relationship between these issues, and improving health care delivery and outcomes.

**NURSE 6111 Theoretical Foundations of Research and Practice: 3 semester hours**

Prerequisites: Admission to the Master's program in the college of Nursing. This course provides an overview of selected theories and frameworks that can be used to guide advanced practice nurses in facilitating their learning and use of evidence-based practice. It is centered on the explication of major theories that will be used in practice. Nursing middle-range and practice theories, theories related to cultural aspects of care, population-based theories, change theories, and informatics theories such as bioinformatics and genetics will form the foundation for advanced practice.

**NURSE 6112 Nursing Research Methods: 3 semester hours**

Prerequisites: NURSE 3799 or equivalent; NURSE 6111 may be taken concurrently This course is designed to provide the student with the skills required to be a consumer of nursing research. These include the fundamentals of scientific inquiry in nursing as well as the information necessary to understand and evaluate nursing research. Principles and techniques common to scientific investigation are applied to nursing. Researchable problems are developed.

**NURSE 6114 Evidence-Based Nursing: 3 semester hours**

Prerequisite: NURSE 6112 This course prepares nurses to review existing nursing research about a nursing practice problem and to propose appropriate changes in current nursing practice. The theoretical basis for evidence-based nursing with respect to screening, diagnosis, selection of treatment alternatives, and prognosis are examined. Research designs such as case control and cohort studies are included. Practical application of change in nursing is examined, including formative and summative aspects of evaluation. Opportunities are provided to develop a plan to implement evidence-based change in an area of nursing practice.

***NURSE 6120 Population-Based Foundations of Health: 3 semester hours***

Prerequisite: Admission to MSN. The purpose of this course is to provide students with an advanced nursing practice perspective on providing population-based nursing care. This course includes an evaluation of human and cultural diversity in the health-illness continuum. Core concepts include ethics; theories of health and health promotion, protection, restoration, and maintenance; and the support needed for a peaceful death. Coursework will focus on community/population-based data on epidemiology, disease and injury prevention, health education, growth and development, and family systems.

***NURSE 6130 Research for Evidence-Based Practice: 3 semester hours***

Prerequisites: Admission to MSN. This course provides students with skills required to systematically explore and evaluate current nursing knowledge for scientific and clinical merit to promote evidence-based nursing practice. Students select a researchable problem, review and critique relevant literature, consider ethical and cultural issues, examine methodological procedures associated with scientific investigation, and explore potential barriers to evidence-based practice. Students critically analyze differing research paradigms and current issues surrounding research and evidence-based practice.

***NURSE 6144 Health Promotion and Cultural Diversity: 3 semester hours***

Prerequisites: Admission to the MSN Program. This course provides graduate nursing students with knowledge related to the concepts of health promotion, health protection, cultural diversity, and moral/ethical influences across the lifespan. Core concepts for the course include theories of health and health promotion and protection, epidemiology, disease and injury prevention, health education, cultural diversity, growth and development, nutrition and family systems. The students will explore values clarification and ethical analysis.

***NURSE 6309 Role Of The Nurse Educator: 3 semester hours***

Prerequisites: Admission to the MSN program or consent of instructor. This course will explore the roles, responsibilities, and functions of the nurse educator. Emphasis will be placed on the development and evaluation of the interactive nature of teaching and learning in a variety of settings.

***NURSE 6320 Learning And Curriculum Development In Nursing: 3 semester hours***

Prerequisites: NURSE 6309. This course examines theoretical foundations, principles, and issues in curriculum design. Explores systematic evaluation of curriculum at all levels.

***NURSE 6321 Instructional Strategies In Nursing: 3 semester hours***

Prerequisites: NURSE 6309 or consent of Instructor; must be taken concurrently with NURSE 6320. This course focuses on the development and analysis of teaching and learning strategies in nursing education. Adult learning principles of teaching and learning will be incorporated into the innovative strategies developed within this course. Integration of new technology in instructional design and delivery will be highlighted. Evaluation methods of both teacher and learner will be explored.

***NURSE 6322 Evaluation Strategies in Nursing: 3 semester hours***

Prerequisites: NURSE 6309. This course provides students the opportunity to learn evaluation concepts, including testing and measurement in nursing education at the didactic, clinical and programmatic levels. Content includes strategies to assess and evaluate learning in the cognitive, psychomotor and affective domains. Quality improvements, as well as legal and ethical considerations are explored. Key concepts include criterion and norm referenced theory and technique; reliability, validity, and the associated descriptive statistics; preparation of instrumental objectives for use in developing classroom tests and clinical nursing performance evaluations.

***NURSE 6409 Role Of The Nurse Leader: 3 semester hours***

Prerequisites: Admission to the Master's Program in the College of Nursing or consent of the instructor. Analysis of the roles and responsibilities of the nurse executive in a complex healthcare system. This course explores the roles and challenges of the clinical nurse leader. Emphasis will be placed on the responsibilities of the clinical nurse and clinical nurse leader in a complex healthcare system.

***NURSE 6425 Managed Care Services: 3 semester hours***

Prerequisites: Admission to the MSN or consent of instructor Provides an analysis of the health care environment in managed care and its impact on the nurse's role.

***NURSE 6426 Health Resources Management: 3 semester hours***

Prerequisite: NURSE 6409. This course focuses on the roles and responsibilities of the nurse leader for fiscal and human resource management in both public and private sectors. Includes analysis of the environment, healthcare organization within the system and impact of resource management on nursing and health care.

***NURSE 6428 Theory And Practice In Nursing Leadership: 3 semester hours***

Prerequisite: NURSE 6409. This course focuses on theories and practices of advanced nursing leadership and management practice within complex healthcare systems. This course will also compare to global healthcare systems. Particular focus will be on the application/effectiveness assessments of the practices within healthcare organizations. Patient safety and quality management theory practices in healthcare will be discussed in depth and compared to other industries' safety and quality management programs theory/practices.

***NURSE 6509 Role Of The Clinical Nurse Specialist/Nurse Practitioner: 2 semester hours***

Prerequisites: Admission to the Master's Program in the College of Nursing or consent of instructor. This course will focus on issues affecting the emerging roles of the nurse practitioner and clinical nurse specialist. It is designed to facilitate the role development of nurses who desire to function as primary care providers and/or as specialists within a specific clinical area of advanced nursing practice. Emphasis include sub-roles of advanced practice (leader, consultant, expert, researcher, educator), legal and professional issues, change theories, and standards of practice.

***NURSE 6518 Pathophysiology For Advanced Nursing Practice: 3 semester hours***

This course focuses on implications for advanced nursing practice through examination of selected pathophysiological phenomena which occur frequently in the diverse populations to whom advanced nurses provide care.

***NURSE 6519 Advanced Pediatric Pathophysiology: 3 semester hours***

This course focuses on embryology of the major organ systems, as well as specific physiologic and pathophysiologic processes relevant to the child from birth through age 18. Implications for advanced nursing practice which result from alterations of normal physiologic functioning in cellular, tissue, and organ systems are examined. Emphasis is placed on the relationship between pathophysiology, decision making and standards of advanced nursing practice.

***NURSE 6520 Pharmacology For Advanced Nursing Practice: 3 semester hours***

Prerequisites: NURSE 6518 or equivalent or consent of instructor. This is a course in clinical pharmacotherapeutics that builds on prior knowledge of drug classifications, actions, interactions, and adverse drug reactions. The major focus of the course is the pharmacotherapeutic use of medications for primary health-care management by advanced practice nurses. Emphasis is placed on clinical critical thinking process used to prescribe drugs in the management of specific illnesses. The Missouri laws for advanced practice nurse prescriptive authority will be addressed. Emphases include pharmacodynamics, pharmacokinetics, pharmacotherapeutics, health-related information, medication compliance, and issues that pertain to the prescribing of medications in advanced nursing practice.

***NURSE 6524 Health Assessment For Advanced Nursing Practice: 3 semester hours***

Prerequisite: NURSE 6518 (may be taken concurrently). This course is designed to provide a systematic approach to the advanced physical assessment as well as psychological, sociocultural, developmental and spiritual assessment of individuals across the lifespan. This course builds upon basic health assessment knowledge and skills, laboratory work interpretation, validation, documentation, and analysis of assessment findings. Two hours of theory and 1 hour of clinical lab per week are required.

***NURSE 6526 Advanced Health Assessment For Pediatric Nursing Practice: 3 semester hours***

Co-requisite: NURSE 6519 or permission of the instructor. Comprehensive assessment of children through adolescence, including those with significant health and/or developmental deviations, using advanced diagnostic reasoning process. Emphasis on health history, cultural diversity, differentiation, interpretation, and documentation of findings.

***NURSE 6529 Advanced Pharmacology For Pediatric Nursing Practice: 3 semester hours***

Prerequisites: Admission to Master of Science in Nursing or permission of the instructor. This course is a clinical pharmacotherapeutics that builds on prior knowledge of drug classifications, actions, interactions, and adverse drug reactions. The major focus of the course is the pharmacotherapeutic use of medications for primary health care management of children from birth to young adulthood by advanced practice nurses. Emphasis is placed on the clinical critical thinking process used to prescribe drugs in the management of specific illness. The Missouri Laws for advanced practice nurse prescriptive authority will be addressed. Core concepts include pharmacodynamics, pharmacokinetics, health related information, medication compliance and issues that pertain to the prescribing of medication in advanced nursing practice.

***NURSE 6530 Clinical diagnostics for Advanced Nursing Practice: 2 semester hours***

Prerequisites: NURSE 6518 or NURSE 6519. This course provides an introduction to the interpretation and appropriate use of diagnostic measures for advanced practice nurses in primary care settings. Special attention is paid to laboratory, radiographic and diagnostic testing. In addition, clinical opportunities will be provided to gain clinical interventional skills for advanced practice nursing.

***NURSE 6737 Psychiatric-Mental Health I: Diagnosis & Management In Advanced Nursing Practice: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6509, NURSE 6518, NURSE 6520, NURSE 6524, and NURSE 6530. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of individuals and families across the life span. The focus is on the maintenance and promotion of mental health. Experiences are designed to enhance assessment and technical skills needed in diagnosing and managing common mental health problems and psychiatric disorders. Management includes pharmacological and non-pharmacological interventions including psychotherapeutic treatment modalities. This course is 4 hours if taken without clinical hours and 5 hours if clinical hours are included.

***NURSE 6738 Psychiatric-Mental Health II: Diagnosis & Management In Advanced Nursing Practice: 4-5 semester hours***

Prerequisite NURSE 6737. This clinical course is designed to provide students with the opportunity to gain the concepts and skills essential to advanced practice nursing care of individuals experiencing acute and chronic psychiatric disorders. The student is expected to learn to diagnose and treat psychiatric disorders (including prescriptive practice and psychotherapy), as well as perform screening, historical, psychosocial and physical exams to diagnose/identify major psychiatric problems. An evidence based approach to advance practice nursing interventions is used. Emphases include individual and family adaptation to acute and chronic conditions, health promotion, clinical decision-making, and ethical decision-making. This course is 4 hours if taken without clinical hours and 5 hours if clinical hours are included.

***NURSE 6739 Diagnosis and Management of the Adult-Geriatric Patient I: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6518. Clinical course is designed to provide a theoretical and practical base for advanced practice nursing students to diagnose and manage health problems through the life span from young adulthood through old age. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to clinically apply the concepts and theories discussed in class in the advanced nursing care of adults who are experiencing problems related to the upper and lower respiratory system, cardiovascular system, gastrointestinal system, skin, and infectious diseases. Clinical experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems.

***NURSE 6740 Diagnosis & Mgmt of the Adult-Geriatric Patient II: 5 semester hours***

Prerequisite: NURSE 6739. Clinical course is designed to provide a theoretical and practical base for advanced practice nursing students to diagnose and manage health problems through the life span from young adulthood through old age. Emphasis is placed on clinical assessment and decision-making in the provision of direct patient care within a defined scope of practice. The student is expected to clinically apply the concepts and theories discussed in class in the advanced nursing care of adults experiencing problems related to the musculoskeletal, neurological, endocrine/metabolic, genitourinary, reproductive systems, the eye, and mental health. Clinical experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems.

***NURSE 6741 Family Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6518, NURSE 6520, NURSE 6524. NURSE 6509 and NURSE 6530 may be taken concurrently. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of individuals and families across the life span. The focus is children, women and adults. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.

***NURSE 6742 Family Health II: Diagnosis & Management In Adv Nursing Practice: 5 semester hours***

Prerequisites: NURSE 6741 This clinical course is designed to provide students with the opportunity to gain the concepts and skills essential to advanced practice nursing care of families experiencing acute and chronic health problems, with particular focus on adult clients. Emphasis is given to those health problems most commonly encountered by the Family Nurse Practitioner. A research-based and theory-based approach to nursing interventions is used. Emphases include family adaptation to acute and chronic conditions, health promotion, clinical decision-making, and ethical decision-making. 4 didactic hours and 1 clinical hour per week are required.

***NURSE 6743 Child Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130; NURSE 6518 or NURSE 6519; NURSE 6520 or NURSE 6529; NURSE 6526. NURSE 6509 and NURSE 6530 may be taken concurrently or instructor consent. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of pediatric individuals and their families. The focus is the life span of the infant through adolescence. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.

***NURSE 6744 Child Health II: Diagnosis & Mgmt In Advanced Nursing Practice: 5 semester hours***

Prerequisites: NURSE 6743. This course is designed to provide students with the opportunity to apply skills from advanced physical assessment, pathophysiology pharmacology, and theory to advanced nursing care of the child and the family. Emphasis is placed on using models and theories that guide advanced practice and planning evidence-based care. The focus is on assessing, diagnosing and planning care for clients with common pediatric problems. The implications of the developmental stage of the child and family, level of developmental skill and developmental problems for the maintenance of health, and the management of illness by the advanced practice nurse are discussed. Documentation includes pertinent history, physical examination, laboratory findings and differential diagnosis relevant to the individual client. Focus is on developing a plan of care that encompasses the various treatment modalities used in managing common pediatric health problems including specific pharmaceutical and symptomatic treatment. Clinical practice opportunities are arranged in collaboration with the instructor and planned in a variety of pediatric settings. Four hours of didactic and 1 hour of clinical per week are required.

***NURSE 6746 Women's Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6518. May be taken concurrently with NURSE 6309 and NURSE 6350. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of women. The focus is on reproductive health and the lifespan life of women throughout the childbearing continuum, including grief and loss. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.

***NURSE 6747 Women's Health II: Diagnosis & Mgmt In Advanced Nursing Practice: 5 semester hours***

Prerequisites: NURSE 6746 Clinical course designed to provide students with the opportunity to apply knowledge and skills to advanced practice nursing care of women and families throughout the lifespan. Emphasis is placed on using models and theories that guide advanced practice and research-based care. Focus is on educating the advanced practice nurse to collaborate with women and their families to promote health and prevent disease. Within this context, focus is on assessing, diagnosing and planning care for well women, as well as women experiencing common women's health problems within a health promotion framework. The format includes pertinent history, physical examination, laboratory findings, and differential diagnoses relevant to the individual client. Core concepts include adaptation of women through developmental stages, health risk assessment, health promotion, disease prevention, health education, primary care of well women, ethical decision-making, and grief and loss. Focus is on the development of a plan of care that encompasses the various treatment modalities used in managing common women's health problems including specific pharmacological and non-pharmacological therapies.

***NURSE 6870 Special Topics In Advanced Practice Nursing: 1-3 semester hours***

Prerequisites: Consent of instructor Explore special topics for the advanced practice nurse in the areas of research, theory, education and administration. No more than three hours shall be applied toward the degree. This course is for graduate MSN or PhD levels.



**NURSE 6875 Special Study In Graduate Nursing: 1-3 semester hours**

Prerequisites: Admission to MSN prog or consent of instructor In-depth study of selected topics in nursing under the guidance of a specific instructor. No more than three hours may be applied to the master's program of study.

**NURSE 6950 Advanced Nursing Practice: 4 semester hours**

Prerequisites: NURSE 6739, NURSE 6743 NURSE 6746. Advanced nursing practice examines different nursing and interdisciplinary models of case management of acute and chronic problems across the lifespan. The intensive clinical experience focuses on the student's specialty care area: adults, pediatric or women's health.

**NURSE 6951 Advanced Intensive Clinical for the Nurse Educator: 2 semester hours**

Prerequisites: NURSE 6520, NURSE 6524, NURSE 6309. This course provides a concentrated opportunity to function in an advanced nursing role as a nurse educator incorporating an intensive clinical experience focusing on the student's chosen population.

**NURSE 6952 Synthesis Practicum: 3 semester hours**

Prerequisites: All required courses in the Nurse Educator or Nursing Leadership of Health Systems option or consent of instructor. This clinical course is a concentrated opportunity to function in an advanced nursing role as a nurse administrator, integrating clinical and functional role activities within a chosen setting. Emphasis includes educator or administrator nursing practice, functional role responsibilities, and activities with emphasis on their relationship to client outcomes.

**NURSE 6954 Advanced Practice Nursing: Internship 1: 4 semester hours**

Prerequisites: All required graduate Nursing courses. This clinical course provides opportunity for the initiation of the nurse practitioner role with selected populations. Students participate in precepted experiences with certified nurse specialists, practitioners and/or primary care physicians for a minimum of 250 hours. Students will participate in clinical seminars. May be taken concurrently with other required courses.

**NURSE 6955 Advanced Practice Nursing: Internship 2: 4 semester hours**

Prerequisites: NURSE 6954. Continuation of precepted clinical experiences with a selected populations initiated in NURSE 6954. Students satisfy a minimum of 250 precepted hours with clinical nurse specialists, certified nurse practitioners, and/or primary care physicians and participate in frequent clinical seminars.

**NURSE 7200 Nursing Science: 3 semester hours**

Prerequisites: Admission to a doctoral study in nursing. This course examines the state of scientific knowledge in nursing research and practice. Gaps in the nursing research and practice are identified. Interrelationships between nursing science and scientific developments in other disciplines from the perspectives of health outcomes, population health indices, and policy implications of scientific progress are analyzed. Advanced in biophysiological, psychosocial, sociocultural, health systems, and health economics research and the implications for translation to improve nursing science and practice are analyzed.

**NURSE 7211 Biostatistics I: 3 semester hours**

Prerequisites: Admission to PhD program. This course provides a comprehensive understanding of the use of biostatistics in conducting research. Data description, logic of sampling and test statistics, hypothesis testing, type 1 and type 2 errors are included. Test statistics include one-way ANOVA, (analysis of variance); post-hoc tests and trend analysis; factorial ANOVA; repeated measures designs and mixed randomized repeated designs; multiple comparison techniques; and simple and multiple regression.

**NURSE 7212 Biostatistics II: 3 semester hours**

Prerequisites: Admission to PhD program This course builds on statistical procedures and advances the student's understanding of advanced statistical methods including design and measurement.

**NURSE 7220 Leadership in Practice: 3 semester hours**

This course provides students with the opportunity to develop and refine critical leadership skills. Emphasis is on using models and theories that facilitate inter-professional collaboration to achieve optimal health outcomes. The focus is effective communication and leadership methods necessary to establish successful inter-professional teams. Students will enhance skills in verbal, written and electronic communication; team leadership; and creating and sustaining health related initiatives. Through advanced understanding of the inter-professional dimension of health care, students will facilitate collaboration and remove barriers to providing safe, timely, effective, efficient, equitable and patient centered care in a complex environment.

**NURSE 7230 Epidemiology: 3 semester hours**

Prerequisite: NURSE 6000 or equivalent within 5 years. This course introduces the fundamental principles and methods of epidemiology. Topics to be covered include the historical perspective of epidemiology, measures of disease occurrence and of association, clinical epidemiology, disease screening, causal inference, and analytic study design. Students will design epidemiologic studies, and utilize common statistical tests. Emphasis will be placed on case control studies, cohort studies, clinical epidemiology, and infectious disease epidemiology.

**NURSE 7240 Health Informatics: 3 semester hours**

Prerequisites: Consent of the Instructor. This course explores information systems and computer technologies that can improve the health of individuals, families, communities and populations by optimizing information management and communication. Focus areas include the electronic medical record, technologies to improve patient safety, standards for privacy and security, tele-health systems to improve healthcare access to underserved populations, use of web-enhanced technologies for research translation, and strategies to provide data for decision making and evident based databases. Emphasis is placed on developing competence in technology use for the purpose of program evaluation, establishing healthcare quality, and improving healthcare delivery to diverse populations in complex healthcare settings.

**NURSE 7250 Frameworks for Health Care Delivery and Policy: 3 semester hours**

Prerequisites: None. This course is designed to provide students with a framework to understand the system through which health care is delivered and financed. The cultural and psychosocial contributors to health care are discussed. The focus is to provide students with knowledge about complex health care systems, government and private reimbursement structures, quality and patient safety initiatives, legal mandates and policy issues affecting health care delivery.

**NURSE 7260 Program and Practice Evaluation: 3 semester hours**

Prerequisite: None. Includes principles and procedures for assessing the quality and effectiveness of programs, projects and materials related to planned interventions and systems changes in health settings. Using a logic model, practice and programs will be evaluated and presented to agencies. Values, ethical issues and political issues, particularly those relevant to race/ethnicity and gender will be emphasized.

**NURSE 7270 Policy Application for Improved Health Outcomes: 3 semester hours**

Prerequisites: NURSE 6106 or equivalent and NURSE 7230. Students learn how to effectively translate and disseminate knowledge from nursing and other health sciences to policy makers and stakeholders in order to form collaborations to affect change at various levels of the policy process. Topics to be covered include policy analysis, policy development, collaboration and negotiation specific to the policy process, building social and political capital and garnering resources to assure effective policy implementation. Students will utilize population health data, policy analysis, and policy development skills to define, shape and implement culturally competent health policy.

**NURSE 7291 DNP Clinical Scholarship I: 3 semester hours**

Prerequisites: All DNP coursework or Consent of Instructor. This experience provides additional opportunities for practice expertise development to create change in a targeted population and complex healthcare environments. Students will develop skills to assess and diagnose healthcare systems and identify evidenced-based strategies to improve health outcomes. Included in this experience is 150 hours of immersion in their population focused scholarly project.

**NURSE 7292 DNP Clinical Scholarship 2: 3 semester hours**

Prerequisites: NURSE 7291. This experience provides additional opportunities to develop clinical preventative strategies to create change in a targeted population and complex healthcare environments. Students will implement evidenced-based projects to improve health outcomes. Included in this experience is 200 hours of immersion in their population focused scholarly project.

**NURSE 7293 DNP Clinical Scholarship 3: 3 semester hours**

Prerequisites: NURSE 7292. This experience provides additional opportunities to evaluate clinical preventative strategies with a targeted population in a complex healthcare environment. Students will evaluate evidenced-based clinical projects and health outcomes. Included in this experience is 200 hours immersion in their population focused scholarly project.

**NURSE 7299 DNP Seminar: 1-3 semester hours**

Prerequisites: All DNP required course work or Consent of Instructor. This seminar provides students with the opportunity to synthesize and analyze knowledge within the context of the emerging DNP role. Analysis of practice issues may include reflective practice, collaboration, health systems technology, ethics and policy.

**NURSE 7300 Prevention of Injury and Disability: 3 semester hours**

Prerequisites: Graduate status or consent of instructor. This course will examine trends in injury and disability nationally and internationally, relevant theories and conceptual models, the definition and measurement of key concepts, and analysis of interventions proposed for preventing injury and mitigating disability. The role of information and computer technologies in the management of disability will also be considered. Specific content will include age-related injury and disability, disability associated with cardiovascular and other chronic diseases, and the psychosocial contexts of disability, including traumatic stress and its outcomes.

**NURSE 7401 Research Institute I: 2 semester hours**

Prerequisites: Admission to Doctorial Study in Nursing. This course provides an introduction to the process of becoming a research scientist or translational investigator. Content will include the responsible conduct of research, its core elements, relevant policies and procedures, and relevant research. This course also includes the culture of nursing, literature reviews, scholarly writing, technology in the research process, developing a program of scholarship and effective time management.

**NURSE 7403 Developer of the Nurse Scientist: 3 semester hours**

Prerequisite: Admission to doctoral study in nursing. This course addresses the role of the PhD-prepared nurse as scientist, leader, academician, and policy maker. Students will analyze strategies for lifelong learning and development as nurse scientists and will explore avenues for building their programs of scholarship, funding opportunities, and contributing to nursing science in policy and clinical practice. Students will examine ways to collaborate effectively in order to improve health care and health outcomes.

**NURSE 7480 Guided Nursing Research Seminar: 1-6 semester hours**

Prerequisite: Consent of instructor Provides opportunity to work in collaboration with faculty and peers on a focused research topic relevant to nursing.

**NURSE 7481 Development Of Nursing Science And Theory: 3 semester hours**

Prerequisite: Admission to PhD Program. This course focuses on the discipline of nursing, including the evolution of the state of scientific inquiry and knowledge development in nursing. The course includes the aims of nursing science, the nature of nursing knowledge and scientific theories, and a discussion of relationships among theory, research, method, and practice. Students engage in constructive dialogue as they begin to conceptualize nursing phenomena in their area of interest.

**NURSE 7488 Qualitative Methods In Nursing Research: 3 semester hours**

Prerequisites: Admission to PhD program. Examines the relationship between theoretical and philosophical perspectives and selection of appropriate methodologies in research design. Critically explores issues related to innovations in traditional qualitative designs and emerging technologies, rigor and validity, and role of interpretive research in nursing science.

**NURSE 7490 Advanced Nursing Research Designs and Methods: 3 semester hours**

Prerequisite: Admission to the PhD program. This course focuses on development of the research plan including issues in sampling, design, and implementation nursing research. Students will evaluate research methods to answer research questions in their area of interest. Content includes design and analysis issues affecting validity, examination of measurement techniques for assessing validity, reliability, structure of data collection instruments, and criteria for instrument selection. A research proposal will be prepared.

**NURSE 7491 Advanced Nursing Theory Development And Validation: 3 semester hours**

Prerequisite: Admission to PhD program. This course focuses on a systematic study of contemporary nursing science and related theories in knowledge development, and the application of theory construction and validation strategies to specific nursing phenomena of interest. Students create and critically examine theoretical frameworks and models, with emphasis placed on constructing and testing theoretical statements.

**NURSE 7498 Doctoral Seminar: 1-12 semester hours**

Prerequisite: Consent of instructor Presentation and discussion of pertinent methodological and clinical issues related to doctoral research.

**NURSE 7499 Dissertation Research: 1-12 semester hours**

Prerequisite: All required course work; successful completion of comprehensive examination. Investigation of an advanced nature culminating in successful defense of dissertation. Continuous registration is required.

## Courses

### ***NURSE 1010 Orientation To Nursing: 0 semester hours***

Prerequisites: Admission to four-year baccalaureate program. This mandatory eight-week introduction to the nursing program provides a comprehensive orientation to the program. Students are introduced to the academic and clinical expectations of the curriculum. Concerns critical for academic success (i.e., time management, effective study skills, stress management and dealing with test anxiety) are addressed.

### ***NURSE 2101 Introduction to Nursing: 2 semester hours***

This course introduces the historical and theoretical development of nursing as a discipline. Nursing is examined as a dynamic practice profession. Variables that influence nursing and health care are discussed. Concepts and skills introduced in this course guide the student's educational experience within the nursing major.

### ***NURSE 2103 Nutrition And Health: 3 semester hours***

This course examines nutritional needs throughout the life span with emphasis on nutritional principles related to health promotion and protection. Content includes assimilation, digestion and absorption of nutrients and cultural and economic influences on dietary practices.

### ***NURSE 2105 Communication In The Nursing Profession: 3 semester hours***

Prerequisites: none This course focuses on the development of communication abilities utilized in professional nursing. The individual's relationship with self, others and groups is discussed. Students learn verbal and non-verbal communication skills, self-awareness, and sensitivity to others. Interpersonal skills are introduced to enable the student to develop effective human caring relationships with a diverse population of clients and colleagues.

### ***NURSE 3101 Nursing And Health: 6 semester hours***

Prerequisites: BIOL 1131; BIOL 1141; CHEM 1052; NURSE 1010, NURSE 3106; NURSE 3110; NURSE 3111 An introduction to the discipline of nursing, the historical and theoretical development of nursing is explored with an emphasis on critical thinking, the teaching/learning process, and foundational practice concepts. Through modular laboratory experiences, the student acquires psychomotor skills to provide safe and effective nursing care to clients promoting health and wellness. Includes classroom, laboratory and clinical experiences.

### ***NURSE 3106 Assessment Of Clients In Health And Illness: 4 semester hours***

Prerequisites: BIOL 1131; BIOL 1141; BIOL 1162; CHEM 1052; PSYCH 1268; NURSE 1010. This course integrates theoretical knowledge and interpersonal skills in the assessment of clients, focusing on differentiating normal from abnormal findings. It emphasizes the use of problem solving, critical thinking and cultural competency in identifying multidimensional health variations across the life span. The course includes classroom and laboratory experiences.

### ***NURSE 3110 Pathophysiological Bases Of Nursing Practice: 3 semester hours***

Prerequisites: BIOL 1131, BIOL 1141, BIOL 1162, CHEM 1052 (or equivalent); NURSE 1010 This course focuses on the nature of disease, its causes and the bodily changes that accompany it. The course includes a study of general principles of disease, specific diseases of individual organs and systems and the clinical implications.

### ***NURSE 3111 Pharmacotherapeutics In Nursing Practice: 3 semester hours***

Prerequisites: BIOL 1141, BIOL 1162, CHEM 1052, NURSE 1010; pre/co requisite: NURSE 3110. This course introduces key terminology, legal foundations, general principles and clinical applications of pharmacology.

### ***NURSE 3120 Foundations of Nursing: 7 semester hours***

Prerequisites: All general education requirements and accelerated nursing option prerequisite non-nursing courses. This course introduces the student to the theoretical concepts and foundations of professional nursing practice. Utilizing an integrated approach, health promotion and protection throughout the lifespan are explored and supported using theories of nursing practice, health assessment of well individuals, and general principles and concepts of pharmacology and critical thinking.

### ***NURSE 3121 Clinical Foundations of Nursing: 3 semester hours***

Prerequisites: NURSE 3120. This course assists in the development and application of clinical reasoning in the lab, clinical agency, and simulation environments. Through clinical learning experiences, the student acquires basic psychomotor, communication, and medication administration skills. The student applies these skills in the provision of safe and effective nursing care to clients while promoting health, wellness, and clinical reasoning.

### ***NURSE 3205 Adult Health Nursing I: 5 semester hours***

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on the nursing care of the adult experiencing selected pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to immune responses, problems of oxygenation: ventilation, transport and perfusion: kidney function; regulatory mechanisms and digestion absorption and elimination. emphasis is placed on health restoration, maintenance and support as well as the continued development of the nurse-client relationship, critical thinking processes, and research-based nursing practice. This course includes classroom and clinical activities in a variety of settings.

### ***NURSE 3206 Adult Health Nursing II: 5 semester hours***

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on the nursing care of the adult experiencing selected pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to endocrine, sensory-perceptual, gynecological, and genitourinary functions. Emphasis is placed on health restoration, maintenance and support as well as the continued development of the nurse-client relationship, critical thinking processes, and research-based nursing practice. This course includes classroom and clinical activities in a variety of settings.

### ***NURSE 3214 Psychiatric Mental Health Nursing: 4 semester hours***

Prerequisites: All 3100-level nursing courses; PSYCH 1268. This course focuses on health and illness across the lifespan of clients who have acute and chronic emotional and psychosocial difficulties and psychiatric illnesses. The course emphasizes development of students' decisional capabilities, self-awareness and professional behaviors as they utilize theory and research from nursing, psychology and related disciplines for the provision of nursing care to individuals, families, & groups. Clinical experiences in community and acute care settings are designed for students to engage in individual and group strategies that promote and maintain mental health. Course includes classroom and clinical activities in a variety of settings.

### ***NURSE 3215 Nursing Of Women And Childbearing Families: 4 semester hours***

Prerequisites: All 3100 level nursing courses, PSYCH 1268. Focuses on the childbearing family and women's reproductive health, including family dynamics and growth and development. Health promotion, protection, maintenance and restoration are covered in experiences that include hospital and community settings. Health care policy and systems as relevant to these populations are included. Course includes classroom and clinical activities in a variety of settings.



**NURSE 3216 Child And Family Health Nursing: 4 semester hours**

Prerequisites: All 3100 level nursing courses, PSYCH 1268. This course focuses on pediatric health and illness with emphasis on family dynamics, growth and development and communication with children and their families. Health promotion, protection, restoration, maintenance and support concepts are covered in experiences that include hospital and community settings. Health care policy and systems are studied as relevant to this population. Course includes classroom and clinical activities in a variety of settings.

**NURSE 3324 Sociology Of The Family: 3 semester hours**

Same as SOC 3224. Prerequisite: SOC 1010 or consent of instructor. The study of patterns of close relationships, and how these relationships are influenced by larger social forces. Topics include: love, dating, mate selection, cohabitation, alternative lifestyles, working families, parenting, single mothers, families in crisis, domestic violence, and divorce. Universal and variable aspects of family organization, family role systems, and changes in family social structure.

**NURSE 3330 Nursing of Adults I: 5 semester hours**

Prerequisites: NURSE 3120, NURSE 3121. This course focuses on the nursing care of the adult experiencing health problems affecting body regulatory mechanisms. These mechanisms are related to perioperative processes, immune processes, problems of oxygenation, cardiovascular alterations, fluid and electrolyte/acid-base imbalances, integumentary problems, abnormalities of the reproductive system and genetics, oncology and hematology problems. This course also incorporates relevant concepts of pharmacology and pathophysiology related to these conditions. Emphasis is placed on health promotion and restoration, maintenance and support as well as the continued development of the nurse-client relationship, clinical reasoning, and evidence-based nursing practice across the adult life span.

**NURSE 3331 Clinical Nursing of Adults I: 3 semester hours**

Prerequisites: NURSE 3330. This course focuses on the nursing care of adults in the lab, clinical agency, and simulation environments. Utilizing an integrated approach, advanced nursing skills and assessment techniques for adult clients are mastered in perioperative processes, immune processes, problems of oxygenation, hematology, cardiovascular alterations, fluid and electrolyte/acid-base imbalances, integumentary problems, abnormalities of the reproductive system, genetics and oncology problems. Clinical reasoning is developed and applied in order to provide safe and effective nursing care to adult clients across the health/illness continuum.

**NURSE 3340 Behavioral Health Nursing: 2.5 semester hours**

Prerequisites: All 3100 level nursing courses and PSYCH 1268. This course focuses on health and illness across the lifespan of clients who have acute and chronic psychosocial and behavioral health issues and specific psychiatric illnesses. An emphasis is placed on the nurse/client relationship in behavioral health promotion, restoration, maintenance and support.

**NURSE 3341 Clinical Behavioral Health Nursing: 1.5 semester hour**

Prerequisites: NURSE 3340. In this course students utilize theory and evidence from nursing and related disciplines in the provision of nursing care to individuals, families, and groups with psychiatric and behavioral health problems. Clinical experiences in community and acute care settings are designed so that students can engage in individual and group strategies that promote and maintain mental health.

**NURSE 3350 Nursing of Adults II: 5 semester hours**

Prerequisites: NURSE 3120, NURSE 3121. This course focuses on the nursing care for the adult experiencing complex pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to endocrine, neurological, musculoskeletal, gastrointestinal, sensory-perceptual, male reproductive and genitourinary problems. This course also incorporates relevant concepts of pathophysiology and pharmacology related to these conditions. Emphasis is placed on health promotion and restoration, maintenance and support, as well as the continued development of the nurse-client relationship, critical thinking and evidence-based nursing practice across the adult life span.

**NURSE 3351 Clinical Nursing of Adults II: 3 semester hours**

Prerequisites: NURSE 3350. This course focuses on the nursing care of adults in the lab, clinical agency and simulation environments. Utilizing an integrated approach, complex psychomotor skills and assessment techniques for adult clients are mastered in patients with musculoskeletal problems, endocrine alterations, renal/genitourinary problems, sensory-perceptual problems, and liver problems. Clinical reasoning is developed and applied in order to provide safe and effective nursing care to adult clients with complex problems across the health/illness continuum.

**NURSE 3360 Maternal-Child Nursing: 5 semester hours**

Prerequisites: PSYCH 1268, NURSE 3120, NURSE 3121. This course focuses on women's reproductive health, childbearing and child rearing families, as well as the health and illness of children from conception through adolescence. There is an emphasis on family dynamics, growth and development, and communication with children and their families. Health care policy and systems are incorporated as they relate to diverse populations.

**NURSE 3361 Clinical Maternal-Child Nursing: 3 semester hours**

Prerequisites: NURSE 3360. Health promotion, protection, restoration, and maintenance for the mother-child and family care are addressed in experiences that include nursing skills lab, hospital agency and a variety of community settings.

**NURSE 3799 Quantitative Analysis In The Health Sciences: 3 semester hours**

Prerequisites: MATH 1030 or equivalent. This course focuses on concepts and applications of statistics in the health sciences. Topics include descriptive and inferential statistics, probability distributions of random variables, sampling and estimation. The course uses examples and content from health sciences to provide the basic concept structure for quantitative analysis.

**NURSE 3804 Ethical And Legal Dimensions Of Nursing Practice: 3 semester hours**

Prerequisites: Philosophy (3 credits). This course explores the ethical and legal dimensions of nursing practice. The relationship between ethical and legal issues is examined within nursing situations. The student participates in dialogue addressing ethical-legal issues in professional nursing practice to explore personal values, increase sensitivity to others and to develop ethical reasoning abilities.



***NURSE 3807 Nursing Research - Evidence Based Nursing Practice: 3 semester hours***

Prerequisite: NURSE 3799 (or equivalent). This course prepares nurses to provide evidence based care to patients among the rapid advances in the science and technology of healthcare. This course provides a basic understanding of how evidence is developed, including the research process, clinical judgment, interprofessional perspectives, and patient preference as applied to nursing practice. Students will learn a systematic method to evaluate and apply research findings and other evidence in designing and implementing nursing care that is multidimensional, high quality, and cost-effective.

***NURSE 3808 Management And Leadership In Nursing: 2-3 semester hours***

Prerequisites: All 3000 level nursing courses; ECON 1000 or (equivalent) This course prepares the nurse to coordinate and manage client care in diverse health care settings. Emphasis is placed on leadership and management theory and related skills, collaboration, delegation, coordination, and evaluation of multi-disciplinary work and the application of outcome-based nursing practice.

***NURSE 3817 Introduction To Nursing And Health Informatics: 3 semester hours***

This online laboratory course establishes competency in fundamental information management and computer technology skills. It enables students to use existing information systems and available information to manage nursing practice. Students critically evaluate technology, information, and its sources; use decision support systems designed for clinical decision making; and focus on the representation of nursing data, information, and knowledge.

***NURSE 3820 Introduction to Evidence-Based Nursing Practice and Informatics: 5 semester hours***

Prerequisites: NURSE 3799 or equivalent statistics course. This course will focus on current review of qualitative and quantitative nursing literature and research utilization through evidence-based practice and establish competency in fundamental information management and technology. Students will examine the research and evidence-based process through analysis and critique of nursing literature; critically evaluate technology, information, and its sources; use decision support systems designed for clinical and ethical decision making; and focus on the presentation of nursing data, information, and knowledge.

***NURSE 3873 Guided Study In Nursing: 1-3 semester hours***

This course is an in-depth independent study of selected topics in nursing under the guidance of a specific instructor. No more than six hours may be taken under this option.

***NURSE 3900 Dimensions Of Professional Nursing: 3 semester hours***

Prerequisites: Admission to the College as RN This course investigates the roles and responsibilities of the professional nurse within a rapidly changing health care delivery system. Key issues are explored with emphasis on health promotion and health. Graduates of diploma nursing programs will be awarded college credit for successful validation of basic nursing knowledge as part of this course.

***NURSE 3920 Health Assessment: 3 semester hours***

Prerequisites: NURSE 3900 and NURSE 3817 (may be taken concurrently) or consent of instructor This laboratory course focuses on the knowledge, communication abilities, and technical skills necessary for comprehensive assessment of individuals of all ages.

***NURSE 4300 Community Health Nursing: 4 semester hours***

Prerequisites: All 3000 level nursing courses This course provides a conceptual foundation for nursing that recognizes the community as client in society. The course examines socioeconomic, environmental, epidemiological, and legislative influences, ethical/legal issues, and the impact of health beliefs and practices on health promotion and protection in communities and society. The student applies various theories and concepts when encountering families, groups and communities with diverse value systems and cultural backgrounds. Course includes classroom and clinical activities in a variety of settings.

***NURSE 4310 Senior Synthesis: 6 semester hours***

Prerequisites: All 3000 level nursing courses; NURSE 4300 and NURSE 3808 may be taken concurrently. This course integrates theory and practice from previous nursing and general education courses with the goal of preparing the student for entry into professional nursing practice. Within a seminar context, students explore a variety of clinical and professional nursing topics. The course includes research-based strategies utilized for health promotion and protection, health restoration, maintenance and support. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems. Course includes classroom and clinical experiences in a variety of settings. Not for graduate credit.

***NURSE 4520 Population Focused Nursing: 2 semester hours***

Prerequisites: All 3300 level nursing courses, NURSE 3804, NURSE 3820. This course provides a conceptual foundation for nursing that recognizes populations in society. The course examines the effect of socioeconomic and environmental, epidemiological factors, and the impact of health beliefs and practices on health promotion and protection in populations. This course also focuses on epidemiological factors and legislative influences in diverse populations.

***NURSE 4521 Clinical Population Focused Nursing: 2 semester hours***

Prerequisites: NURSE 4520. This clinical course focuses on the nursing care of populations in various settings. The student applies population-based theories and concepts when encountering individuals, families, groups and populations with diverse value systems and cultural backgrounds.

***NURSE 4530 Leadership Development and Professional Nursing Practice: 4 semester hours***

Prerequisites: All 3300 level nursing courses, NURSE 3804, NURSE 3820. This course integrates theory and practice from previous nursing and general education courses with the goal of preparing the student for entry into professional nursing practice. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems. Topics will include leadership, management theory and related skills, collaboration, delegation, coordination, and evaluation of outcome based interdisciplinary nursing practice.

***NURSE 4531 Clinical Leadership Development and Professional Nursing Practice: 4 semester hours***

Prerequisites: NURSE 4530. This clinical course includes a variety of experiences to prepare the student nurse to lead, coordinate, and manage client care in diverse health care settings. This course includes research-based strategies utilized for health promotion and protection, health restoration, maintenance, and support. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems.

***NURSE 4720 Perioperative Nursing: 3 semester hours***

PREREQUISITES: Consent of the instructor. Provides experiences in preoperative, intraoperative, and postoperative settings. Includes a clinical component.

**NURSE 4722 Transcultural Nursing: 3 semester hours**

Prerequisite: Consent of the Instructor. Examines transcultural nursing concepts, theories and practices in relationship to human caring. Focuses on application and analysis of health care and scope of practice within selected cultural contexts. Includes practicum experiences.

**NURSE 4723 Nurse Externship: 3 semester hours**

Prerequisite: Senior level status; GPA 3.0 (4.0 scale) This course provides the opportunity to apply theoretical and conceptual knowledge and skills in a structured clinical environment under the guidance of a mentor.

**NURSE 4724 Emergency/Trauma Nursing: 3 semester hours**

Prerequisites: NURSE 3205 and NURSE 3206 or consent of instructor. This course provides a framework for the roles and responsibilities of the professional registered nurse in Emergency and Trauma nursing care.

**NURSE 4726 Parish Nursing: 3 semester hours**

Prerequisites: All 2000 level nursing courses, NURSE 3205 and NURSE 3214. This course provides a conceptual foundation that recognizes a speciality of nursing practice that combines professional nursing and health ministry. It examines four major concepts: professionalism; health and wholeness; spirituality; and community as it relates to culture and diversity. The course includes classroom discussion, individual reflection and community based learning experiences.

**NURSE 4730 Nursing Care At The End Of Life: 3 semester hours**

Prerequisites for Nursing Students NURSE 3205 and NURSE 3214. All others by consent of instructor. This course focuses on the nursing care of terminally ill patients and their families. Topics explored will include the impact of personal values and beliefs about death, physiology of end stage disease processes, symptom assessment and management, psychosocial and spiritual support, consideration in special patient populations, societal issues and trends in end of life care, ethical considerations in caring for the dying patient, grief and bereavement processes, and the role nursing in end of life care across settings.

**NURSE 4741 Advanced Nrsng Assmt & Mgt Of Clients W/Cardiac Dysrhythmias: 3 semester hours**

PREREQUISITES: Senior status Focuses on advanced nursing assessment and management of clients with cardiac rhythm problems and conduction disturbances. Includes a clinical component.

**NURSE 4742 Critical Care Nursing Of The Adult: 3 semester hours**

Prerequisites: RN or completion of NURSE 3205 and NURSE 3206 (or equivalent). Focuses on health restoration, health maintenance, and health support of individuals with dysfunctions or trauma to major organ systems. Emphasis is on understanding pathophysiology and psychosocial processes related to nursing and collaborative interventions, and the development of a functional framework for data organization and analysis.

**NURSE 4901 Family And Community Nursing: 5 semester hours**

Prerequisites: NURSE 3900, NURSE 3817 and NURSE 3920 This practicum course introduces the concepts, principles, skills, and professional nursing roles essential to practice community-based professional nursing with families and groups.

**NURSE 4905 Values In Professional Nursing: 3 semester hours**

Prerequisites: All 3000 level RN/BSN nursing courses or consent of instructor Explores values and beliefs as they shape professional nursing practice and influence clinical decision making and interventions in the evolving health care system. Attention is given to the impact of sociocultural factors and health/illness beliefs and practices of the diverse populations served by the professional nurse. Students examine their own understanding of the moral nature of professional nursing within the context of a diverse society.

**NURSE 4911 Synthesis In Nursing Practice: 5 semester hours**

Prerequisites: NURSE 4901. This practicum course focuses on community-based application and synthesis of professional nursing roles and responsibilities with selected populations determined to be at risk for a variety of health related problems. The course includes assessment of cognitive and affective growth achieved while in the BSN Completion Program.

**NURSE 6000 Statistics in Nursing & Health Sciences: 3 semester hours**

Prerequisites: Admission to graduate study in nursing or consent of instructor. Provides students with a graduate level understanding of quantitative methods and their relationship to research in nursing and health sciences. Students will conduct lab data analysis based on the topics covered in the class and learn how to generate specific research questions and conduct basic statistical analysis.

**NURSE 6106 Policy, Organization And Financing In Health Care: 3 semester hours**

Prerequisites: Admission to MSN program. This course presents an overview of health care policy, organization, and financing with emphasis on current health care trends. The focus is on the design and implementation of health care delivery systems with the goal of providing safe, quality, and informatics driven cost-effective care. Emphasis is placed on the development of a leadership role in managing human, financial, and physical health care resources. The format includes pertinent information concerning primary health care and public health issues, the relationship between these issues, and improving health care delivery and outcomes.

**NURSE 6111 Theoretical Foundations of Research and Practice: 3 semester hours**

Prerequisites: Admission to the Master's program in the college of Nursing. This course provides an overview of selected theories and frameworks that can be used to guide advanced practice nurses in facilitating their learning and use of evidence-based practice. It is centered on the explication of major theories that will be used in practice. Nursing middle-range and practice theories, theories related to cultural aspects of care, population-based theories, change theories, and informatics theories such as bioinformatics and genetics will form the foundation for advanced practice.

**NURSE 6112 Nursing Research Methods: 3 semester hours**

Prerequisites: NURSE 3799 or equivalent; NURSE 6111 may be taken concurrently This course is designed to provide the student with the skills required to be a consumer of nursing research. These include the fundamentals of scientific inquiry in nursing as well as the information necessary to understand and evaluate nursing research. Principles and techniques common to scientific investigation are applied to nursing. Researchable problems are developed.

**NURSE 6114 Evidence-Based Nursing: 3 semester hours**

Prerequisite: NURSE 6112 This course prepares nurses to review existing nursing research about a nursing practice problem and to propose appropriate changes in current nursing practice. The theoretical basis for evidence-based nursing with respect to screening, diagnosis, selection of treatment alternatives, and prognosis are examined. Research designs such as case control and cohort studies are included. Practical application of change in nursing is examined, including formative and summative aspects of evaluation. Opportunities are provided to develop a plan to implement evidence-based change in an area of nursing practice.

***NURSE 6120 Population-Based Foundations of Health: 3 semester hours***

Prerequisite: Admission to MSN. The purpose of this course is to provide students with an advanced nursing practice perspective on providing population-based nursing care. This course includes an evaluation of human and cultural diversity in the health-illness continuum. Core concepts include ethics; theories of health and health promotion, protection, restoration, and maintenance; and the support needed for a peaceful death. Coursework will focus on community/population-based data on epidemiology, disease and injury prevention, health education, growth and development, and family systems.

***NURSE 6130 Research for Evidence-Based Practice: 3 semester hours***

Prerequisites: Admission to MSN. This course provides students with skills required to systematically explore and evaluate current nursing knowledge for scientific and clinical merit to promote evidence-based nursing practice. Students select a researchable problem, review and critique relevant literature, consider ethical and cultural issues, examine methodological procedures associated with scientific investigation, and explore potential barriers to evidence-based practice. Students critically analyze differing research paradigms and current issues surrounding research and evidence-based practice.

***NURSE 6144 Health Promotion and Cultural Diversity: 3 semester hours***

Prerequisites: Admission to the MSN Program. This course provides graduate nursing students with knowledge related to the concepts of health promotion, health protection, cultural diversity, and moral/ethical influences across the lifespan. Core concepts for the course include theories of health and health promotion and protection, epidemiology, disease and injury prevention, health education, cultural diversity, growth and development, nutrition and family systems. The students will explore values clarification and ethical analysis.

***NURSE 6309 Role Of The Nurse Educator: 3 semester hours***

Prerequisites: Admission to the MSN program or consent of instructor. This course will explore the roles, responsibilities, and functions of the nurse educator. Emphasis will be placed on the development and evaluation of the interactive nature of teaching and learning in a variety of settings.

***NURSE 6320 Learning And Curriculum Development In Nursing: 3 semester hours***

Prerequisites: NURSE 6309. This course examines theoretical foundations, principles, and issues in curriculum design. Explores systematic evaluation of curriculum at all levels.

***NURSE 6321 Instructional Strategies In Nursing: 3 semester hours***

Prerequisites: NURSE 6309 or consent of Instructor; must be taken concurrently with NURSE 6320. This course focuses on the development and analysis of teaching and learning strategies in nursing education. Adult learning principles of teaching and learning will be incorporated into the innovative strategies developed within this course. Integration of new technology in instructional design and delivery will be highlighted. Evaluation methods of both teacher and learner will be explored.

***NURSE 6322 Evaluation Strategies in Nursing: 3 semester hours***

Prerequisites: NURSE 6309. This course provides students the opportunity to learn evaluation concepts, including testing and measurement in nursing education at the didactic, clinical and programmatic levels. Content includes strategies to assess and evaluate learning in the cognitive, psychomotor and affective domains. Quality improvements, as well as legal and ethical considerations are explored. Key concepts include criterion and norm referenced theory and technique; reliability, validity, and the associated descriptive statistics; preparation of instrumental objectives for use in developing classroom tests and clinical nursing performance evaluations.

***NURSE 6409 Role Of The Nurse Leader: 3 semester hours***

Prerequisites: Admission to the Master's Program in the College of Nursing or consent of the instructor. Analysis of the roles and responsibilities of the nurse executive in a complex healthcare system. This course explores the roles and challenges of the clinical nurse leader. Emphasis will be placed on the responsibilities of the clinical nurse and clinical nurse leader in a complex healthcare system.

***NURSE 6425 Managed Care Services: 3 semester hours***

Prerequisites: Admission to the MSN or consent of instructor Provides an analysis of the health care environment in managed care and its impact on the nurse's role.

***NURSE 6426 Health Resources Management: 3 semester hours***

Prerequisite: NURSE 6409. This course focuses on the roles and responsibilities of the nurse leader for fiscal and human resource management in both public and private sectors. Includes analysis of the environment, healthcare organization within the system and impact of resource management on nursing and health care.

***NURSE 6428 Theory And Practice In Nursing Leadership: 3 semester hours***

Prerequisite: NURSE 6409. This course focuses on theories and practices of advanced nursing leadership and management practice within complex healthcare systems. This course will also compare to global healthcare systems. Particular focus will be on the application/effectiveness assessments of the practices within healthcare organizations. Patient safety and quality management theory practices in healthcare will be discussed in depth and compared to other industries' safety and quality management programs theory/practices.

***NURSE 6509 Role Of The Clinical Nurse Specialist/Nurse Practitioner: 2 semester hours***

Prerequisites: Admission to the Master's Program in the College of Nursing or consent of instructor. This course will focus on issues affecting the emerging roles of the nurse practitioner and clinical nurse specialist. It is designed to facilitate the role development of nurses who desire to function as primary care providers and/or as specialists within a specific clinical area of advanced nursing practice. Emphasis include sub-roles of advanced practice (leader, consultant, expert, researcher, educator), legal and professional issues, change theories, and standards of practice.

***NURSE 6518 Pathophysiology For Advanced Nursing Practice: 3 semester hours***

This course focuses on implications for advanced nursing practice through examination of selected pathophysiological phenomena which occur frequently in the diverse populations to whom advanced nurses provide care.

***NURSE 6519 Advanced Pediatric Pathophysiology: 3 semester hours***

This course focuses on embryology of the major organ systems, as well as specific physiologic and pathophysiologic processes relevant to the child from birth through age 18. Implications for advanced nursing practice which result from alterations of normal physiologic functioning in cellular, tissue, and organ systems are examined. Emphasis is placed on the relationship between pathophysiology, decision making and standards of advanced nursing practice.

***NURSE 6520 Pharmacology For Advanced Nursing Practice: 3 semester hours***

Prerequisites: NURSE 6518 or equivalent or consent of instructor. This is a course in clinical pharmacotherapeutics that builds on prior knowledge of drug classifications, actions, interactions, and adverse drug reactions. The major focus of the course is the pharmacotherapeutic use of medications for primary health-care management by advanced practice nurses. Emphasis is placed on clinical critical thinking process used to prescribe drugs in the management of specific illnesses. The Missouri laws for advanced practice nurse prescriptive authority will be addressed. Emphases include pharmacodynamics, pharmacokinetics, pharmacotherapeutics, health-related information, medication compliance, and issues that pertain to the prescribing of medications in advanced nursing practice.

***NURSE 6524 Health Assessment For Advanced Nursing Practice: 3 semester hours***

Prerequisite: NURSE 6518 (may be taken concurrently). This course is designed to provide a systematic approach to the advanced physical assessment as well as psychological, sociocultural, developmental and spiritual assessment of individuals across the lifespan. This course builds upon basic health assessment knowledge and skills, laboratory work interpretation, validation, documentation, and analysis of assessment findings. Two hours of theory and 1 hour of clinical lab per week are required.

***NURSE 6526 Advanced Health Assessment For Pediatric Nursing Practice: 3 semester hours***

Co-requisite: NURSE 6519 or permission of the instructor. Comprehensive assessment of children through adolescence, including those with significant health and/or developmental deviations, using advanced diagnostic reasoning process. Emphasis on health history, cultural diversity, differentiation, interpretation, and documentation of findings.

***NURSE 6529 Advanced Pharmacology For Pediatric Nursing Practice: 3 semester hours***

Prerequisites: Admission to Master of Science in Nursing or permission of the instructor. This course is a clinical pharmacotherapeutics that builds on prior knowledge of drug classifications, actions, interactions, and adverse drug reactions. The major focus of the course is the pharmacotherapeutic use of medications for primary health care management of children from birth to young adulthood by advanced practice nurses. Emphasis is placed on the clinical critical thinking process used to prescribe drugs in the management of specific illness. The Missouri Laws for advanced practice nurse prescriptive authority will be addressed. Core concepts include pharmacodynamics, pharmacokinetics, health related information, medication compliance and issues that pertain to the prescribing of medication in advanced nursing practice.

***NURSE 6530 Clinical diagnostics for Advanced Nursing Practice: 2 semester hours***

Prerequisites: NURSE 6518 or NURSE 6519. This course provides an introduction to the interpretation and appropriate use of diagnostic measures for advanced practice nurses in primary care settings. Special attention is paid to laboratory, radiographic and diagnostic testing. In addition, clinical opportunities will be provided to gain clinical interventional skills for advanced practice nursing.

***NURSE 6737 Psychiatric-Mental Health I: Diagnosis & Management In Advanced Nursing Practice: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6509, NURSE 6518, NURSE 6520, NURSE 6524, and NURSE 6530. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of individuals and families across the life span. The focus is on the maintenance and promotion of mental health. Experiences are designed to enhance assessment and technical skills needed in diagnosing and managing common mental health problems and psychiatric disorders. Management includes pharmacological and non-pharmacological interventions including psychotherapeutic treatment modalities. This course is 4 hours if taken without clinical hours and 5 hours if clinical hours are included.

***NURSE 6738 Psychiatric-Mental Health II: Diagnosis & Management In Advanced Nursing Practice: 4-5 semester hours***

Prerequisite NURSE 6737. This clinical course is designed to provide students with the opportunity to gain the concepts and skills essential to advanced practice nursing care of individuals experiencing acute and chronic psychiatric disorders. The student is expected to learn to diagnose and treat psychiatric disorders (including prescriptive practice and psychotherapy), as well as perform screening, historical, psychosocial and physical exams to diagnose/identify major psychiatric problems. An evidence based approach to advance practice nursing interventions is used. Emphases include individual and family adaptation to acute and chronic conditions, health promotion, clinical decision-making, and ethical decision-making. This course is 4 hours if taken without clinical hours and 5 hours if clinical hours are included.

***NURSE 6739 Diagnosis and Management of the Adult-Geriatric Patient I: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6518. Clinical course is designed to provide a theoretical and practical base for advanced practice nursing students to diagnose and manage health problems through the life span from young adulthood through old age. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to clinically apply the concepts and theories discussed in class in the advanced nursing care of adults who are experiencing problems related to the upper and lower respiratory system, cardiovascular system, gastrointestinal system, skin, and infectious diseases. Clinical experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems.



***NURSE 6740 Diagnosis & Mgmt of the Adult-Geriatric Patient II: 5 semester hours***

Prerequisite: NURSE 6739. Clinical course is designed to provide a theoretical and practical base for advanced practice nursing students to diagnose and manage health problems through the life span from young adulthood through old age. Emphasis is placed on clinical assessment and decision-making in the provision of direct patient care within a defined scope of practice. The student is expected to clinically apply the concepts and theories discussed in class in the advanced nursing care of adults experiencing problems related to the musculoskeletal, neurological, endocrine/metabolic, genitourinary, reproductive systems, the eye, and mental health. Clinical experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems.

***NURSE 6741 Family Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130, NURSE 6518, NURSE 6520, NURSE 6524. NURSE 6509 and NURSE 6530 may be taken concurrently. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of individuals and families across the life span. The focus is children, women and adults. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.

***NURSE 6742 Family Health II: Diagnosis & Management In Adv Nursing Practice: 5 semester hours***

Prerequisites: NURSE 6741 This clinical course is designed to provide students with the opportunity to gain the concepts and skills essential to advanced practice nursing care of families experiencing acute and chronic health problems, with particular focus on adult clients. Emphasis is given to those health problems most commonly encountered by the Family Nurse Practitioner. A research-based and theory-based approach to nursing interventions is used. Emphases include family adaptation to acute and chronic conditions, health promotion, clinical decision-making, and ethical decision-making. 4 didactic hours and 1 clinical hour per week are required.

***NURSE 6743 Child Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6130; NURSE 6518 or NURSE 6519; NURSE 6520 or NURSE 6529; NURSE 6526. NURSE 6509 and NURSE 6530 may be taken concurrently or instructor consent. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of pediatric individuals and their families. The focus is the life span of the infant through adolescence. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.

***NURSE 6744 Child Health II: Diagnosis & Mgmt In Advanced Nursing Practice: 5 semester hours***

Prerequisites: NURSE 6743. This course is designed to provide students with the opportunity to apply skills from advanced physical assessment, pathophysiology pharmacology, and theory to advanced nursing care of the child and the family. Emphasis is placed on using models and theories that guide advanced practice and planning evidence-based care. The focus is on assessing, diagnosing and planning care for clients with common pediatric problems. The implications of the developmental stage of the child and family, level of developmental skill and developmental problems for the maintenance of health, and the management of illness by the advanced practice nurse are discussed. Documentation includes pertinent history, physical examination, laboratory findings and differential diagnosis relevant to the individual client. Focus is on developing a plan of care that encompasses the various treatment modalities used in managing common pediatric health problems including specific pharmaceutical and symptomatic treatment. Clinical practice opportunities are arranged in collaboration with the instructor and planned in a variety of pediatric settings. Four hours of didactic and 1 hour of clinical per week are required.

***NURSE 6746 Women's Health 1: 4-5 semester hours***

Prerequisites: NURSE 6106, NURSE 6111, NURSE 6120, NURSE 6518. May be taken concurrently with NURSE 6309 and NURSE 6350. Emphasis is placed on clinical assessment and decision making in the provision of direct patient care within a defined scope of practice. The student is expected to apply the concepts and theories discussed in class in the advanced nursing care of women. The focus is on reproductive health and the lifespan life of women throughout the childbearing continuum, including grief and loss. Experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems. This course is 4 hours if taken without a clinical lab and 5 hours if taken with a clinical lab.

***NURSE 6747 Women's Health II: Diagnosis & Mgmt In Advanced Nursing Practice: 5 semester hours***

Prerequisites: NURSE 6746 Clinical course designed to provide students with the opportunity to apply knowledge and skills to advanced practice nursing care of women and families throughout the lifespan. Emphasis is placed on using models and theories that guide advanced practice and research-based care. Focus is on educating the advanced practice nurse to collaborate with women and their families to promote health and prevent disease. Within this context, focus is on assessing, diagnosing and planning care for well women, as well as women experiencing common women's health problems within a health promotion framework. The format includes pertinent history, physical examination, laboratory findings, and differential diagnoses relevant to the individual client. Core concepts include adaptation of women through developmental stages, health risk assessment, health promotion, disease prevention, health education, primary care of well women, ethical decision-making, and grief and loss. Focus is on the development of a plan of care that encompasses the various treatment modalities used in managing common women's health problems including specific pharmacological and non-pharmacological therapies.

***NURSE 6870 Special Topics In Advanced Practice Nursing: 1-3 semester hours***

Prerequisites: Consent of instructor Explore special topics for the advanced practice nurse in the areas of research, theory, education and administration. No more than three hours shall be applied toward the degree. This course is for graduate MSN or PhD levels.

**NURSE 6875 Special Study In Graduate Nursing: 1-3 semester hours**

Prerequisites: Admission to MSN prog or consent of instructor In-depth studh of selected topics in nursing under the guidance of a specific instructor. No more than three hours may be applied to the master's program of study.

**NURSE 6950 Advanced Nursing Practice: 4 semester hours**

Prerequisites: NURSE 6739, NURSE 6743 NURSE 6746. Advanced nursing practice examines different nursing an dinterdisciplinary models of case management of acute and chronic problems across the lifespan. The intensive clinical experience focuses on the student's specialty care area: adults, pediatric or women's health.

**NURSE 6951 Advanced Intensive Clinical for the Nurse Educator: 2 semester hours**

Prerequisites: NURSE 6520, NURSE 6524, NURSE 6309. This course provides a concentrated opportunity to function in an advanced nursing role as a nurse educator incorporating an intensive clinical experience focusing on the student's chosen population.

**NURSE 6952 Synthesis Practicum: 3 semester hours**

Prerequisites: All required courses in the Nurse Educator or Nursing Leadership of Health Systems option or consent of instructor. This clinical course is a concentrated opportunity to function in an advanced nursing role as a nurse administrator, integrating clinical and functional role activities within a chosen setting. Emphasis includes educator or administrator nursing practice, functional role responsibilities, and activities with emphasis on their relationship to client outcomes.

**NURSE 6954 Advanced Practice Nursing: Internship 1: 4 semester hours**

Prerequisites: All required graduate Nursing courses. This clinical course provides opportunity for the initiation of the nurse practitioner role with selected populations. Students participate in precepted experiences with certified nurse specialists, practitioners and/or primary care physicians for a minimum of 250 hours. Students will participate in clinical seminars. May be taken concurrently with other required courses.

**NURSE 6955 Advanced Practice Nursing: Internship 2: 4 semester hours**

Prerequisites: NURSE 6954. Continuation of precepted clinical experiences with a selected populations initiated in NURSE 6954. Students satisfy a minimum of 250 precepted hours with clinical nurse specialists, certified nurse practitioners, and/or primary care physicians and participate in frequent clinical seminars.

**NURSE 7200 Nursing Science: 3 semester hours**

Prerequisites: Admission to a doctoral study in nursing. This course examines the state of scientific knowledge in nursing research and practice. Gaps in the nursing research and practice are identified. Interrelationships between nursing science and scientific developments in other disciplines from the perspectives of health outcomes, population health indices, and policy implications of scientific progress are analyzed. Advanced in biophysiological, psychosocial, sociocultural, health systems, and health economics research and the implications for translation to improve nursing science and practice are analyzed.

**NURSE 7211 Biostatistics I: 3 semester hours**

Prerequisites: Admission to PhD program. This course provides a comprehensive understanding of the use of biostatics in conducting research. Data description, logic of sampling and test statistics, hypothesis testing, type 1 and type 2 errors are included. Test statistics include one-way ANOVA, (analysis of variance); post-hoc tests and trend analysis; factorial ANOVA; repeated measures designs and mixed randomized repeated designs; multiple comparison techniques; and simple and multiple regression.

**NURSE 7212 Biostatistics II: 3 semester hours**

Prerequisites: Admission to PhD program This course builds on statistical procedures and advances the student's understanding of advanced statistical methods including design and measurement.

**NURSE 7220 Leadership in Practice: 3 semester hours**

This course provides students with the opportunity to develop and refine critical leadership skills. Emphasis is on using models and theories that facilitate inter-professional collaboration to achieve optimal health outcomes. The focus is effective communication and leadership methods necessary to establish successful inter-professional teams. Students will enhance skills in verbal, written and electronic communication; team leadership; and creating and sustaining health related initiatives. Through advanced understanding of the inter-professional dimension of health care, students will facilitate collaboration and remove barriers to providing safe, timely, effective, efficient, equitable and patient centered care in a complex environment.

**NURSE 7230 Epidemiology: 3 semester hours**

Prerequisite: NURSE 6000 or equivalent within 5 years. This course introduces the fundamental principles and methods of epidemiology. Topics to be covered include the historical perspective of epidemiology, measures of disease occurrence and of association, clinical epidemiology, disease screening, causal inference, and analytic study design. Students will design epidemiologic studies, and utilize common statistical tests. Emphasis will be placed on case control studies, cohort studies, clinical epidemiology, and infectious disease epidemiology.

**NURSE 7240 Health Informatics: 3 semester hours**

Prerequisites: Consent of the Instructor. This course explores information systems and computer technologies that can improve the health of individuals, families, communities and populations by optimizing information management and communication. Focus areas include the electronic medical record, technologies to improve patient safety, standards for privacy and security, tele-health systems to improve healthcare access to underserved populations, use of web-enhanced technologies for research translation, and strategies to provide data for decision making and evident based databases. Emphasis is placed on developing competence in technology use for the purpose of program evaluation, establishing healthcare quality, and improving healthcare delivery to diverse populations in complex healthcare settings.

**NURSE 7250 Frameworks for Health Care Delivery and Policy: 3 semester hours**

Prerequisites: None. This course is designed to provide students with a framework to understand the system through which health care is delivered and financed. The cultural and psychosocial contributors to health care are discussed. The focus is to provide students with knowledge about complex health care systems, government and private reimbursement structures, quality and patient safety initiatives, legal mandates and policy issues affecting health care delivery.

**NURSE 7260 Program and Practice Evaluation: 3 semester hours**

Prerequisite: None. Includes principles and procedures for assessing the quality and effectiveness of programs, projects and materials related to planned interventions and systems changes in health settings. Using a logic model, practice and programs will be evaluated and presented to agencies. Values, ethical issues and political issues, particularly those relevant to race/ethnicity and gender will be emphasized.

***NURSE 7270 Policy Application for Improved Health Outcomes: 3 semester hours***

Prerequisites: NURSE 6106 or equivalent and NURSE 7230. Students learn how to effectively translate and disseminate knowledge from nursing and other health sciences to policy makers and stakeholders in order to form collaborations to affect change at various levels of the policy process. Topics to be covered include policy analysis, policy development, collaboration and negotiation specific to the policy process, building social and political capital and garnering resources to assure effective policy implementation. Students will utilize population health data, policy analysis, and policy development skills to define, shape and implement culturally competent health policy.

***NURSE 7291 DNP Clinical Scholarship I: 3 semester hours***

Prerequisites: All DNP coursework or Consent of Instructor. This experience provides additional opportunities for practice expertise development to create change in a targeted population and complex healthcare environments. Students will develop skills to assess and diagnose healthcare systems and identify evidenced-based strategies to improve health outcomes. Included in this experience is 150 hours of immersion in their population focused scholarly project.

***NURSE 7292 DNP Clinical Scholarship 2: 3 semester hours***

Prerequisites: NURSE 7291. This experience provides additional opportunities to develop clinical preventative strategies to create change in a targeted population and complex healthcare environments. Students will implement evidenced-based projects to improve health outcomes. Included in this experience is 200 hours of immersion in their population focused scholarly project.

***NURSE 7293 DNP Clinical Scholarship 3: 3 semester hours***

Prerequisites: NURSE 7292. This experience provides additional opportunities to evaluate clinical preventative strategies with a targeted population in a complex healthcare environment. Students will evaluate evidenced-based clinical projects and health outcomes. Included in this experience is 200 hours immersion in their population focused scholarly project.

***NURSE 7299 DNP Seminar: 1-3 semester hours***

Prerequisites: All DNP required course work or Consent of Instructor. This seminar provides students with the opportunity to synthesize and analyze knowledge within the context of the emerging DNP role. Analysis of practice issues may include reflective practice, collaboration, health systems technology, ethics and policy.

***NURSE 7300 Prevention of Injury and Disability: 3 semester hours***

Prerequisites: Graduate status or consent of instructor. This course will examine trends in injury and disability nationally and internationally, relevant theories and conceptual models, the definition and measurement of key concepts, and analysis of interventions proposed for preventing injury and mitigating disability. The role of information and computer technologies in the management of disability will also be considered. Specific content will include age-related injury and disability, disability associated with cardiovascular and other chronic diseases, and the psychosocial contexts of disability, including traumatic stress and its outcomes.

***NURSE 7401 Research Institute I: 2 semester hours***

Prerequisites: Admission to Doctorial Study in Nursing. This course provides an introduction to the process of becoming a research scientist or translational investigator. Content will include the responsible conduct of research, its core elements, relevant policies and procedures, and relevant research. This course also includes the culture of nursing, literature reviews, scholarly writing, technology in the research process, developing a program of scholarship and effective time management.

***NURSE 7403 Developer of the Nurse Scientist: 3 semester hours***

Prerequisite: Admission to doctoral study in nursing. This course addresses the role of the PhD-prepared nurse as scientist, leader, academician, and policy maker. Students will analyze strategies for lifelong learning and development as nurse scientists and will explore avenues for building their programs of scholarship, funding opportunities, and contributing to nursing science in policy and clinical practice. Students will examine ways to collaborate effectively in order to improve health care and health outcomes.

***NURSE 7480 Guided Nursing Research Seminar: 1-6 semester hours***

Prerequisite: Consent of instructor Provides opportunity to work in collaboration with faculty and peers on a focused research topic relevant to nursing.

***NURSE 7481 Development Of Nursing Science And Theory: 3 semester hours***

Prerequisite: Admission to PhD Program. This course focuses on the discipline of nursing, including the evolution of the state of scientific inquiry and knowledge development in nursing. The course includes the aims of nursing science, the nature of nursing knowledge and scientific theories, and a discussion of relationships among theory, research, method, and practice. Students engage in constructive dialogue as they begin to conceptualize nursing phenomena in their area of interest.

***NURSE 7488 Qualitative Methods In Nursing Research: 3 semester hours***

Prerequisites: Admission to PhD program. Examines the relationship between theoretical and philosophical perspectives and selection of appropriate methodologies in research design. Critically explores issues related to innovations in traditional qualitative designs and emerging technologies, rigor and validity, and role of interpretive research in nursing science.

***NURSE 7490 Advanced Nursing Research Designs and Methods: 3 semester hours***

Prerequisite: Admission to the PhD program. This course focuses on development of the research plan including issues in sampling, design, and implementation nursing research. Students will evaluate research methods to answer research questions in their area of interest. Content includes design and analysis issues affecting validity, examination of measurement techniques for assessing validity, reliability, structure of data collection instruments, and criteria for instrument selection. A research proposal will be prepared.

***NURSE 7491 Advanced Nursing Theory Development And Validation: 3 semester hours***

Prerequisite: Admission to PhD program. This course focuses on a systematic study of contemporary nursing science and related theories in knowledge development, and the application of theory construction and validation strategies to specific nursing phenomena of interest. Students create and critically examine theoretical frameworks and models, with emphasis placed on constructing and testing theoretical statements.

***NURSE 7498 Doctoral Seminar: 1-12 semester hours***

Prerequisite: Consent of instructor Presentation and discussion of pertinent methodological and clinical issues related to doctoral research.

***NURSE 7499 Dissertation Research: 1-12 semester hours***

Prerequisite: All required course work; successful completion of comprehensive examination. Investigation of an advanced nature culminating in successful defense of dissertation. Continuous registration is required.

## Optometry



## Courses

### **OPTOM 8010 Anatomy, Physiology and Disease Processes I: 5 semester hours**

First in a two-semester course sequence that will detail the general anatomy of the human body along with the histology (microanatomy), physiology and disease processes of major organ systems. Course content will be presented in a modular format. Areas of discussion will include cardiovascular, respiratory, endocrine, digestive, reproductive, integumentary and peripheral and autonomic nervous systems. The laboratories will emphasize and augment important concepts introduced in the classroom environment.

### **OPTOM 8020 Basic and Clinical Optics I: 4 semester hours**

Prerequisites: Consent of instructor. The principles of geometrical optics as applied to refracting and reflecting surfaces, thin lenses, thick lenses, and lens systems. The optics of various ophthalmic instruments and techniques will be examined.

### **OPTOM 8030 Introduction to Optometry: 1 semester hour**

An introduction to the profession of optometry, including a consideration of the characteristics of a profession, the behaviors and attitudes of a professional, the history of optometry, the profession's legal basis, the major optometric organizations and sources and types of information available to optometrists. One hour of lecture per week.

### **OPTOM 8040 Neuroanatomy: 4 semester hours**

Prerequisites: Consent of instructor. Detailed gross and microscopic anatomy of human central nervous system with a special emphasis on the cranial nerves, nuclei, and the visual system.

### **OPTOM 8060 Biochemistry: 3 semester hours**

Basic concepts of general and cellular biochemistry. Study of nomenclature structure, and reactions of organic molecules. Some emphasis on visual system - tears, intraocular fluids, lens, and photochemistry.

### **OPTOM 8090 Case Based Discovery For The Developing Clinician: 1 semester hour**

Students acquire curricular competencies appropriate for the professional year in which they are enrolled via in depth individual and group discovery via case based presentations. The experience will provide students the opportunity to assimilate and recognize the relationships among diverse topics emphasized within the optometric curriculum. Participants work in groups of no more than 10.

### **OPTOM 8110 Anatomy, Physiology And Disease Process II: 5 semester hours**

Prerequisite: OPTOM 8010 Continuation of OPTOM 8010 Anatomy, Physiology and Disease Processes I.

### **OPTOM 8120 Basic & Clinical Optics II: 5 semester hours**

Prerequisite: OPTOM 8020. Radiometry and photometry, polarization, scattering, emmetropia, myopia, hyperopia, astigmatism, models of experimental myopia, accommodation, diffraction, retinal image size, entoptic phenomena, aberrations, lasers and the eye, apertures, and optical instruments.

### **OPTOM 8160 Anatomy And Physiology Of The Eye: 5 semester hours**

Prerequisites: OPTOM 8040, OPTOM 8010 or consent of instructor. Vegetative anatomy and physiology of the eye, optic nerve, orbit, and adnexa will be discussed. This includes discussion of embryology and the dynamics of ocular fluids. Four lecture hours and a two-hour laboratory per week.

### **OPTOM 8180 Clinical Optometry I: 5 semester hours**

Prerequisites: OPTOM 8030. Selected tests for ocular assessment including case history, visual acuity, ophthalmoscopy, refraction, and binocular integration. The course format is two 75-minute lectures and two 2-hour laboratories.

### **OPTOM 8190 Introduction to Clinical Diagnostic Reasoning: 1 semester hour**

Prerequisite: OPTOM 8090. Introduction to clinical diagnostic reasoning by individual and group case-based learning. Scenarios give students an understanding of the relationship between basic and clinical sciences and provide an introduction to established best practices.

### **OPTOM 8220 Ophthalmic Optics: 4 semester hours**

Prerequisites: OPTOM 8120. Ophthalmic materials, physical characteristics of lenses and frames, paraxial optics of ophthalmic lenses, ophthalmic prisms, lens specifications, special lenses, multifocal lenses, unique designs, aniseikonic lenses, aberration theory and its application to lens design, lenses for low vision, protective eyewear.

### **OPTOM 8230 Interpersonal Communications: 2 semester hours**

Prerequisites: OPTOM 8030. Principles of human interpersonal relationships. The enhancement of listening and verbal skills will be provided. Emphasis will be preparing the student to understand and manage the many human interpersonal relationships necessary in the practice of optometry. Two hours of lecture per week.

### **OPTOM 8240 Ocular Motility: 2 semester hours**

Prerequisites: OPTOM 8040 or consent of instructor. The anatomy, physiology, neurology, measurement, characteristic, and control of the intra- and extraocular system.

### **OPTOM 8250 Monocular Sensory Processes: 5 semester hours**

Prerequisite: OPTOM 8160 or consent of instructor. Monocular sensory processes of vision: phototransduction, visual neurophysiology, spatial and temporal vision, acuity, light adaptation and discrimination, color, motion, objects and attention. Sensory processes are considered from both the psychophysical aspects and neurophysiological bases, including the changes during development, adulthood and aging. Four hours of lecture and two hours of laboratory per week.

### **OPTOM 8260 Foundations Of Ocular And Systemic Disease And Management I: 4 semester hours**

Prerequisites: OPTOM 8110 The first of a comprehensive, three semester course sequence. Topics will be discussed in a modular, systems based approach. The course introduces students to disease processes and the organ systems they affect, clinical diagnoses, pharmacology on specified organ systems and optometric and medical management of ocular and systemic disease.

### **OPTOM 8280 Clinical Optometry II: 5 semester hours**

Prerequisites: OPTOM 8180 Continuation of clinical optometry. Patient care in the areas of refraction, binocular integration, perimetry, and biomicroscopy.

### **OPTOM 8320 Ophthalmic Dispensing: 1 semester hour**

Prerequisites: OPTOM 8220. Clinical experience in verification and dispensing of ophthalmic materials.

### **OPTOM 8340 Binocular Vision And Space Perception: 4 semester hours**

Prerequisites: OPTOM 8240, OPTOM 8280 and OPTOM 8250 or consent of instructor. Binocular vision and space perception. Visual direction, theory of correspondence, fusion, rivalry, ocular dominance, and stereopsis. Developmental aspects and neurophysiological mechanisms.



**OPTOM 8350 Epidemiology: 2 semester hours**

A review of descriptive statistics, probability sampling, correlation, and prediction. The essentials of epidemiological study procedures and a discussion of the epidemiology of vision disorders.

**OPTOM 8370 Foundations Of Ocular And Systemic Disease And Management II: 7 semester hours**

Prerequisite: OPTOM 8260. A continuation of a comprehensive, systems based course sequence that introduces students to disease processes and the organ systems they affect, clinical diagnoses, pharmacology on specified organ systems and optometric and medical management of ocular and systemic disease. The laboratories will emphasize and augment important concepts introduced in the classroom environment.

**OPTOM 8380 Clinical Optometry III: 2 semester hours**

Prerequisites: OPTOM 8280. Continuation of Clinical Optometry II. Diagnosis, prognosis and management of visual problems. Emphasis on conducting comprehensive eye exams in preparation for the initial clinical privileging examination.

**OPTOM 8390 Specialty Clinic Laboratory: 1 semester hour**

Prerequisite: OPTOM 8280. Students acquire and practice skills for pediatric, binocular vision, low vision, and contact lens examinations. The course format is one 2-hour laboratory per week.

**OPTOM 8391 Clinical Topics in Contact Lenses: 1 semester hour**

Prerequisite: OPTOM 8280. This is the first in a series of 3 courses addressing contact lenses. The focus is on contact lens care and evaluation. The course format is one 50-minute lecture per week.

**OPTOM 8392 Clinical Topics in Binocular Vision and Pediatric Optometry: 1 semester hour**

Prerequisite: OPTOM 8240 and OPTOM 8280. This course presents clinical diagnostic and management skills for both pediatric patients and those with binocular vision anomalies. The course format is lecture.

**OPTOM 8393 Clinical Topics in Low Vision: 1 semester hour**

Prerequisite: OPTOM 8280. This course presents clinical diagnostic and management skills for patients with low vision. the course format is one 50-minute lecture per week.

**OPTOM 8400 Directed Readings: 1-3 semester hours**

Prerequisite: Consent of Instructor. Credit is given for independent literature review of a specific topic in any area of basic or clinical vision science guided by a full time faculty member with appropriate interests. Credit is awarded upon approval of a written paper regarding the selected topic. This elective may be repeated up to a total of 3 credit hours.

**OPTOM 8410 Directed Research: 1-3 semester hours**

Prerequisite: Consent of Instructor. Credit is given for independent research. Projects may be laboratory, library, or clinically based research in any area of vision science. Projects will be supervised by one or more full time faculty members. This elective may be repeated up to a total of 6 credit hours.

**OPTOM 8500 Primary Care Clinic I: 6 semester hours**

Prerequisites: OPTOM 8380 and successful completion of all first and second year coursework required The clinical examination and care of general clinic patients, along with the fitting and dispensing of lenses and frames.

**OPTOM 8520 Contact Lenses I: 3 semester hours**

Prerequisites: OPTOM 8380 and OPTOM 8391. Historical development of the contact lens and its use. Basic lens terminology, specifications, physiochemical characteristics, optics, fabrication, and verification. Preliminary patient evaluation, indications and contraindications for contact lenses. Basic fitting philosophies for all lens types. Lens care and patient education. Patient and practice management considerations.

**OPTOM 8540 Binocular Vision Anomalies: 4 semester hours**

Prerequisites: OPTOM 8340, OPTOM 8380 and OPTOM 8392 or consent of instructor. The etiology, epidemiology, symptoms, signs, and course sequelae of the obstacles to binocular vision-sensory, integrative, and motor. The detection, diagnosis, prognosis, and orthoptic treatment of such anomalies. Clinical care of aniseikonias.

**OPTOM 8550 Low Vision: 2 semester hours**

Prerequisite: OPTOM 8380 and OPTOM 8393. The etiology, epidemiology, symptoms, signs, course, and sequelae of low vision problems. Methods of testing, prognosis, selection of therapy, design of environmental and optical aids, problems of rehabilitation. Agencies, laws, public and social assistance for the partially sighted and blind. The course format is lecture and 1 two-hour laboratory per week.

**OPTOM 8560 Public Health: 2 semester hours**

A review of local, state and federal organizations involved in health care, comprehensive health planning, new trends in health care delivery. The assessment of the quality of health care delivery. The relationship of vision care to these topics is emphasized.

**OPTOM 8570 Advanced Topics In Ocular And Systemic Disease And Management: 6 semester hours**

Prerequisite: OPTOM 8370. The third semester of a comprehensive, systems based course sequence. Advanced topics in diagnoses as well as optometric and medical management of ocular and systemic disease will be discussed. The laboratories will emphasize and augment important concepts introduced in the classroom environment.

**OPTOM 8600 Primary Care Clinic II: 6 semester hours**

Prerequisites: OPTOM 8500 and successful completion of all Fall semester third year coursework required. Continuation of Primary Care Clinic I.

**OPTOM 8610 Environmental Vision: 2 semester hours**

Prerequisites: OPTOM 8500. This course considers the relationship of the eye and vision to all aspects of one's environment including home, work, recreation, and transportation. Emphasis will be placed on protecting the eye from injury and maximizing vision performance.

**OPTOM 8620 Contact Lenses II: 2 semester hours**

Prerequisites: OPTOM 8520. Advanced contact lens fitting, theories, and clinical methods for astigmatic, presbyopic, keratoconic, and aphakic designs. Special considerations include the use of corneal topography, orthokeratology, disposable lenses, lenses for extended wear and lenses for color deficiencies. The course format is one lecture per week.

**OPTOM 8630 Practice Management III: 3 semester hours**

Prerequisites: OPTOM 8030 and OPTOM 8230. The development and management of an optometric practice from a patient and community service point of view - office design, office routine, patient care administration, personnel management, recall systems. The establishment, development and management of an optometric practice from a business point of view. Legal developments, governmental regulations, legislation and the legislative process, malpractice, professional ethics, taxes, fee structures, insurance and accounting methods.

**OPTOM 8640 Pediatric Optometry: 2 semester hours**

Prerequisites: OPTOM 8380 and OPTOM 8540. Special examination and management considerations of the pediatric patient. Psychological, physiological, social, and demographic aspects of early visual development. Discussion of the optometric considerations of children with learning and reading disabilities. The course format is two lecture/discussions per week.

**OPTOM 8650 Geriatric Optometry: 2 semester hours**

Prerequisite: OPTOM 8380. Special examination and management considerations of the geriatric patient will be discussed. Psychological, physiological, social, and demographic aspects of aging, as well as ocular changes associated with the aging process will be taught.

**OPTOM 8660 Contact Lens Specialty Clinic: 1 semester hour**

Prerequisites: OPTOM 8391. The clinical examination and care of patients in the optometric specialty area of contact lenses.

**OPTOM 8670 Comprehensive Case Review and analysis: 1 semester hour**

Prerequisites: Enrollment in OPTOM 8500 or OPTOM 8600. Discussion of the diagnosis and management of common clinic patient encounters via Socratic teaching techniques. Interns are encouraged to present actual cases which have been particularly challenging for them. The course format is a weekly seminar.

**OPTOM 8680 Ophthalmic Lasers: 1 semester hour**

Prerequisites: OPTOM 8570. Principles and applications of lasers for ophthalmic use. Emphasis will be placed on demonstration where possible. Topics will include the principles, physics and safety concerns of ophthalmic lasers. Lasers used in retinal imaging, and in the care of glaucoma, cataract, refractive conditions, and cosmetic conditions will be discussed and demonstrated. Co-management of patients requiring ophthalmic laser treatment will also be covered.

**OPTOM 8690 Pediatric/Binocular Vision Specialty Clinic: 1 semester hour**

Prerequisites: OPTOM 8392. The clinical examination and care of patients in the optometric specialty areas of binocular vision and pediatric vision.

**OPTOM 8700 Um-St. Louis Pediatric/Binocular Vision Patient Care: 3 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of patients in pediatric/binocular vision clinic at the University of Missouri-St. Louis Center for Eyecare. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8710 and OPTOM 8720.

**OPTOM 8710 Um-St. Louis Contact Lens Patient Care: 3 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework required Comprehensive clinical care in the contact lens clinic at the University of Missouri-St. Louis Center for Eyecare. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8700 and OPTOM 8720.

**OPTOM 8720 Umsl Eye Health Management Patient Care: 1 semester hour**

Prerequisites: Successful completion of all first, second, and third year course work. Comprehensive clinical care in the eye health management clinic with ophthalmologists at the University of Missouri-St. Louis University Eye Center. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8700 and OPTOM 8710.

**OPTOM 8730 Community Service Patient Care Rotation A: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of patients at St. Louis area community health centers. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8750 Community Service Patient Care Rotation B: 7 semester hours**

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of patients at St. Louis area community health centers. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8760 Harvester Eye Care: 7 semester hours**

Prerequisite: Successful completion of all first, second and third year course work. Comprehensive clinical care of patients at the Harvester Center for Eye Care. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8770 Community Service Patient Care Rotation C: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of patients at St. Louis area community health centers. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8780 External Rotation In Institutional Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of primary care patients at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8790 External Rotation In Ocular Disease Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of patients with ocular disease at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8800 External Rotation In Pediatric/Binocular Vision Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of pediatric/binocular vision patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8810 External Rotation In Contact Lens Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of contact lens patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8811 External Rotation In Ophthalmic Surgical Patient Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Ophthalmic Surgical Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8812 External Rotation In Geriatric Patient Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Geriatric Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8813 External Rotation In Ophthalmic Sports Vision: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Sports Vision Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8814 External Rotation In Primary Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Primary Care Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8815 External Rotation In Pathology And Treatment: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care in pathology and treatment of patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8816 External Rotation In Ophthalmic Laser Treatment: 7 semester hours**

Prerequisites: Successful Completion of all second and third year coursework. Comprehensive clinical care in ophthalmic laser treatment of patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8817 External Rotation In Rehabilitative Patient Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care in Rehabilitative Patient Care at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8820 External Rotation In Low Vision Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of low vision patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8830 External Rotation In General Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of a general population of optometric patients at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8840 External Supplementary Rotation In General Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of general population of optometric patients at external site approved by the School of Optometry's Externship Council.

**OPTOM 8850 Supplementary Rotation In General Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of general population of optometric patients at the UM-St. Louis Center for Eye Care, UM-St. Louis Optometric Center, or the UM-St. Louis East St. Louis Eye Center.

**OPTOM 8870 Practice Management IV: 2 semester hours**

Prerequisites: Successful completion of all first, second and third year. Further in-depth discussion in practice management.

**OPTOM 8880 Clinic Seminar: 1 semester hour**

Prerequisites: Successful completion of all first, second and third year. Presentation and discussion of interesting clinical patients. Additional clinical testing techniques and concepts. Further discussion of patient data analysis-the process of determining diagnosis, prognosis, and therapy. Further discussions in the optometric specialities.

**OPTOM 8970 Geriatric Patient Care Delivery: 3-6 semester hours**

Prerequisite: Consent of Geriatric Residency Instructors. Direct optometric patient care to a population that is largely geriatric. Emphasis will be on integrating specialty care available for these patients to provide comprehensive vision care. Two hours of direct patient care per week are required per hour of credit. In addition, the student will attend weekly supervisory meetings. May be repeated with consent of instructor for a total of 18 credits. Patient care will become more independent of direct supervision and the type of patients seen will be more varied with each repeat.

## Courses

**OPTOM 8010 Anatomy, Physiology and Disease Processes I: 5 semester hours**

First in a two-semester course sequence that will detail the general anatomy of the human body along with the histology (microanatomy), physiology and disease processes of major organ systems. Course content will be presented in a modular format. Areas of discussion will include cardiovascular, respiratory, endocrine, digestive, reproductive, integumentary and peripheral and autonomic nervous systems. The laboratories will emphasize and augment important concepts introduced in the classroom environment.

**OPTOM 8020 Basic and Clinical Optics I: 4 semester hours**

Prerequisites: Consent of instructor. The principles of geometrical optics as applied to refracting and reflecting surfaces, thin lenses, thick lenses, and lens systems. The optics of various ophthalmic instruments and techniques will be examined.

**OPTOM 8030 Introduction to Optometry: 1 semester hour**

An introduction to the profession of optometry, including a consideration of the characteristics of a profession, the behaviors and attitudes of a professional, the history of optometry, the profession's legal basis, the major optometric organizations and sources and types of information available to optometrists. One hour of lecture per week.

**OPTOM 8040 Neuroanatomy: 4 semester hours**

Prerequisites: Consent of instructor. Detailed gross and microscopic anatomy of human central nervous system with a special emphasis on the cranial nerves, nuclei, and the visual system.

**OPTOM 8060 Biochemistry: 3 semester hours**

Basic concepts of general and cellular biochemistry. Study of nomenclature structure, and reactions of organic molecules. Some emphasis on visual system - tears, intraocular fluids, lens, and photochemistry.

**OPTOM 8090 Case Based Discovery For The Developing Clinician: 1 semester hour**

Students acquire curricular competencies appropriate for the professional year in which they are enrolled via in depth individual and group discovery via case based presentations. The experience will provide students the opportunity to assimilate and recognize the relationships among diverse topics emphasized within the optometric curriculum. Participants work in groups of no more than 10.

**OPTOM 8110 Anatomy, Physiology And Disease Process II: 5 semester hours**

Prerequisite: OPTOM 8010 Continuation of OPTOM 8010 Anatomy, Physiology and Disease Processes I.

**OPTOM 8120 Basic & Clinical Optics II: 5 semester hours**

Prerequisite: OPTOM 8020. Radiometry and photometry, polarization, scattering, emmetropia, myopia, hyperopia, astigmatism, models of experimental myopia, accommodation, diffraction, retinal image size, entoptic phenomena, aberrations, lasers and the eye, apertures, and optical instruments.

**OPTOM 8160 Anatomy And Physiology Of The Eye: 5 semester hours**

Prerequisites: OPTOM 8040, OPTOM 8010 or consent of instructor. Vegetative anatomy and physiology of the eye, optic nerve, orbit, and adnexa will be discussed. This includes discussion of embryology and the dynamics of ocular fluids. Four lecture hours and a two-hour laboratory per week.

**OPTOM 8180 Clinical Optometry I: 5 semester hours**

Prerequisites: OPTOM 8030. Selected tests for ocular assessment including case history, visual acuity, ophthalmoscopy, refraction, and binocular integration. The course format is two 75-minute lectures and two 2-hour laboratories.

**OPTOM 8190 Introduction to Clinical Diagnostic Reasoning: 1 semester hour**

Prerequisite: OPTOM 8090. Introduction to clinical diagnostic reasoning by individual and group case-based learning. Scenarios give students an understanding of the relationship between basic and clinical sciences and provide an introduction to established best practices.

**OPTOM 8220 Ophthalmic Optics: 4 semester hours**

Prerequisites: OPTOM 8120. Ophthalmic materials, physical characteristics of lenses and frames, paraxial optics of ophthalmic lenses, ophthalmic prisms, lens specifications, special lenses, multifocal lenses, unique designs, aniseikonic lenses, aberration theory and its application to lens design, lenses for low vision, protective eyewear.

**OPTOM 8230 Interpersonal Communications: 2 semester hours**

Prerequisites: OPTOM 8030. Principles of human interpersonal relationships. The enhancement of listening and verbal skills will be provided. Emphasis will be preparing the student to understand and manage the many human interpersonal relationships necessary in the practice of optometry. Two hours of lecture per week.

**OPTOM 8240 Ocular Motility: 2 semester hours**

Prerequisites: OPTOM 8040 or consent of instructor. The anatomy, physiology, neurology, measurement, characteristic, and control of the intra- and extraocular system.

**OPTOM 8250 Monocular Sensory Processes: 5 semester hours**

Prerequisite: OPTOM 8160 or consent of instructor. Monocular sensory processes of vision: phototransduction, visual neurophysiology, spatial and temporal vision, acuity, light adaptation and discrimination, color, motion, objects and attention. Sensory processes are considered from both the psychophysical aspects and neurophysiological bases, including the changes during development, adulthood and aging. Four hours of lecture and two hours of laboratory per week.

**OPTOM 8260 Foundations Of Ocular And Systemic Disease And Management I: 4 semester hours**

Prerequisites: OPTOM 8110 The first of a comprehensive, three semester course sequence. Topics will be discussed in a modular, systems based approach. The course introduces students to disease processes and the organ systems they affect, clinical diagnoses, pharmacology on specified organ systems and optometric and medical management of ocular and systemic disease.

**OPTOM 8280 Clinical Optometry II: 5 semester hours**

Prerequisites: OPTOM 8180 Continuation of clinical optometry. Patient care in the areas of refraction, binocular integration, perimetry, and biomicroscopy.

**OPTOM 8320 Ophthalmic Dispensing: 1 semester hour**

Prerequisites: OPTOM 8220. Clinical experience in verification and dispensing of ophthalmic materials.

**OPTOM 8340 Binocular Vision And Space Perception: 4 semester hours**

Prerequisites: OPTOM 8240, OPTOM 8280 and OPTOM 8250 or consent of instructor. Binocular vision and space perception. Visual direction, theory of correspondence, fusion, rivalry, ocular dominance, and stereopsis. Developmental aspects and neurophysiological mechanisms.

**OPTOM 8350 Epidemiology: 2 semester hours**

A review of descriptive statistics, probability sampling, correlation, and prediction. The essentials of epidemiological study procedures and a discussion of the epidemiology of vision disorders.

**OPTOM 8370 Foundations Of Ocular And Systemic Disease And Management II: 7 semester hours**

Prerequisite: OPTOM 8260. A continuation of a comprehensive, systems based course sequence that introduces students to disease processes and the organ systems they affect, clinical diagnoses, pharmacology on specified organ systems and optometric and medical management of ocular and systemic disease. The laboratories will emphasize and augment important concepts introduced in the classroom environment.

**OPTOM 8380 Clinical Optometry III: 2 semester hours**

Prerequisites: OPTOM 8280. Continuation of Clinical Optometry II. Diagnosis, prognosis and management of visual problems. Emphasis on conducting comprehensive eye exams in preparation for the initial clinical privileging examination.

**OPTOM 8390 Specialty Clinic Laboratory: 1 semester hour**

Prerequisite: OPTOM 8280. Students acquire and practice skills for pediatric, binocular vision, low vision, and contact lens examinations. The course format is one 2-hour laboratory per week.

**OPTOM 8391 Clinical Topics in Contact Lenses: 1 semester hour**

Prerequisite: OPTOM 8280. This is the first in a series of 3 courses addressing contact lenses. The focus is on contact lens care and evaluation. The course format is one 50-minute lecture per week.



**OPTOM 8392 Clinical Topics in Binocular Vision and Pediatric Optometry: 1 semester hour**

Prerequisite: OPTOM 8240 and OPTOM 8280. This course presents clinical diagnostic and management skills for both pediatric patients and those with binocular vision anomalies. The course format is lecture.

**OPTOM 8393 Clinical Topics in Low Vision: 1 semester hour**

Prerequisite: OPTOM 8280. This course presents clinical diagnostic and management skills for patients with low vision. The course format is one 50-minute lecture per week.

**OPTOM 8400 Directed Readings: 1-3 semester hours**

Prerequisite: Consent of Instructor. Credit is given for independent literature review of a specific topic in any area of basic or clinical vision science guided by a full time faculty member with appropriate interests. Credit is awarded upon approval of a written paper regarding the selected topic. This elective may be repeated up to a total of 3 credit hours.

**OPTOM 8410 Directed Research: 1-3 semester hours**

Prerequisite: Consent of Instructor. Credit is given for independent research. Projects may be laboratory, library, or clinically based research in any area of vision science. Projects will be supervised by one or more full time faculty members. This elective may be repeated up to a total of 6 credit hours.

**OPTOM 8500 Primary Care Clinic I: 6 semester hours**

Prerequisites: OPTOM 8380 and successful completion of all first and second year coursework required. The clinical examination and care of general clinic patients, along with the fitting and dispensing of lenses and frames.

**OPTOM 8520 Contact Lenses I: 3 semester hours**

Prerequisites: OPTOM 8380 and OPTOM 8391. Historical development of the contact lens and its use. Basic lens terminology, specifications, physiochemical characteristics, optics, fabrication, and verification. Preliminary patient evaluation, indications and contraindications for contact lenses. Basic fitting philosophies for all lens types. Lens care and patient education. Patient and practice management considerations.

**OPTOM 8540 Binocular Vision Anomalies: 4 semester hours**

Prerequisites: OPTOM 8340, OPTOM 8380 and OPTOM 8392 or consent of instructor. The etiology, epidemiology, symptoms, signs, and course sequelae of the obstacles to binocular vision-sensory, integrative, and motor. The detection, diagnosis, prognosis, and orthoptic treatment of such anomalies. Clinical care of aniseikonias.

**OPTOM 8550 Low Vision: 2 semester hours**

Prerequisite: OPTOM 8380 and OPTOM 8393. The etiology, epidemiology, symptoms, signs, course, and sequelae of low vision problems. Methods of testing, prognosis, selection of therapy, design of environmental and optical aids, problems of rehabilitation. Agencies, laws, public and social assistance for the partially sighted and blind. The course format is lecture and 1 two-hour laboratory per week.

**OPTOM 8560 Public Health: 2 semester hours**

A review of local, state and federal organizations involved in health care, comprehensive health planning, new trends in health care delivery. The assessment of the quality of health care delivery. The relationship of vision care to these topics is emphasized.

**OPTOM 8570 Advanced Topics In Ocular And Systemic Disease And Management: 6 semester hours**

Prerequisite: OPTOM 8370. The third semester of a comprehensive, systems based course sequence. Advanced topics in diagnoses as well as optometric and medical management of ocular and systemic disease will be discussed. The laboratories will emphasize and augment important concepts introduced in the classroom environment.

**OPTOM 8600 Primary Care Clinic II: 6 semester hours**

Prerequisites: OPTOM 8500 and successful completion of all Fall semester third year coursework required. Continuation of Primary Care Clinic I.

**OPTOM 8610 Environmental Vision: 2 semester hours**

Prerequisites: OPTOM 8500. This course considers the relationship of the eye and vision to all aspects of one's environment including home, work, recreation, and transportation. Emphasis will be placed on protecting the eye from injury and maximizing vision performance.

**OPTOM 8620 Contact Lenses II: 2 semester hours**

Prerequisites: OPTOM 8520. Advanced contact lens fitting, theories, and clinical methods for astigmatic, presbyopic, keratoconic, and aphakic designs. Special considerations include the use of corneal topography, orthokeratology, disposable lenses, lenses for extended wear and lenses for color deficiencies. The course format is one lecture per week.

**OPTOM 8630 Practice Management III: 3 semester hours**

Prerequisites: OPTOM 8030 and OPTOM 8230. The development and management of an optometric practice from a patient and community service point of view - office design, office routine, patient care administration, personnel management, recall systems. The establishment, development and management of an optometric practice from a business point of view. Legal developments, governmental regulations, legislation and the legislative process, malpractice, professional ethics, taxes, fee structures, insurance and accounting methods.

**OPTOM 8640 Pediatric Optometry: 2 semester hours**

Prerequisites: OPTOM 8380 and OPTOM 8540. Special examination and management considerations of the pediatric patient. Psychological, physiological, social, and demographic aspects of early visual development. Discussion of the optometric considerations of children with learning and reading disabilities. The course format is two lecture/discussions per week.

**OPTOM 8650 Geriatric Optometry: 2 semester hours**

Prerequisite: OPTOM 8380. Special examination and management considerations of the geriatric patient will be discussed. Psychological, physiological, social, and demographic aspects of aging, as well as ocular changes associated with the aging process will be taught.

**OPTOM 8660 Contact Lens Specialty Clinic: 1 semester hour**

Prerequisites: OPTOM 8391. The clinical examination and care of patients in the optometric specialty area of contact lenses.

**OPTOM 8670 Comprehensive Case Review and analysis: 1 semester hour**

Prerequisites: Enrollment in OPTOM 8500 or OPTOM 8600. Discussion of the diagnosis and management of common clinic patient encounters via Socratic teaching techniques. Interns are encouraged to present actual cases which have been particularly challenging for them. The course format is a weekly seminar.

**OPTOM 8680 Ophthalmic Lasers: 1 semester hour**

Prerequisites: OPTOM 8570. Principles and applications of lasers for ophthalmic use. Emphasis will be placed on demonstration where possible. Topics will include the principles, physics and safety concerns of ophthalmic lasers. Lasers used in retinal imaging, and in the care of glaucoma, cataract, refractive conditions, and cosmetic conditions will be discussed and demonstrated. Co-management of patients requiring ophthalmic laser treatment will also be covered.

**OPTOM 8690 Pediatric/Binocular Vision Specialty Clinic: 1 semester hour**

Prerequisites: OPTOM 8392. The clinical examination and care of patients in the optometric specialty areas of binocular vision and pediatric vision.

**OPTOM 8700 Um-St. Louis Pediatric/Binocular Vision Patient Care: 3 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of patients in pediatric/binocular vision clinic at the University of Missouri-St. Louis Center for Eyecare. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8710 and OPTOM 8720.

**OPTOM 8710 Um-St. Louis Contact Lens Patient Care: 3 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework required Comprehensive clinical care in the contact lens clinic at the University of Missouri-St. Louis Center for Eyecare. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8700 and OPTOM 8720.

**OPTOM 8720 Umsl Eye Health Management Patient Care: 1 semester hour**

Prerequisites: Successful completion of all first, second, and third year course work. Comprehensive clinical care in the eye health management clinic with ophthalmologists at the University of Missouri-St. Louis University Eye Center. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8700 and OPTOM 8710.

**OPTOM 8730 Community Service Patient Care Rotation A: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of patients at St. Louis area community health centers. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8750 Community Service Patient Care Rotation B: 7 semester hours**

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of patients at St. Louis area community health centers. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8760 Harvester Eye Care: 7 semester hours**

Prerequisite: Successful completion of all first, second and third year course work. Comprehensive clinical care of patients at the Harvester Center for Eye Care. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8770 Community Service Patient Care Rotation C: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of patients at St. Louis area community health centers. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8780 External Rotation In Institutional Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of primary care patients at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8790 External Rotation In Ocular Disease Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of patients with ocular disease at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8800 External Rotation In Pediatric/Binocular Vision Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of pediatric/binocular vision patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8810 External Rotation In Contact Lens Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of contact lens patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8811 External Rotation In Ophthalmic Surgical Patient Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Ophthalmic Surgical Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8812 External Rotation In Geriatric Patient Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Geriatric Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8813 External Rotation In Ophthalmic Sports Vision: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Sports Vision Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8814 External Rotation In Primary Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care of Primary Care Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8815 External Rotation In Pathology And Treatment: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care in pathology and treatment of patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8816 External Rotation In Ophthalmic Laser Treatment: 7 semester hours**

Prerequisites: Successful Completion of all second and third year coursework. Comprehensive clinical care in ophthalmic laser treatment of patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8817 External Rotation In Rehabilitative Patient Care: 7 semester hours**

Prerequisites: Successful completion of all second and third year coursework. Comprehensive clinical care in Rehabilitative Patient Care at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8820 External Rotation In Low Vision Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second and third year coursework. Comprehensive clinical care of low vision patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8830 External Rotation In General Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of a general population of optometric patients at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

**OPTOM 8840 External Supplementary Rotation In General Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of general population of optometric patients at external site approved by the School of Optometry's Externship Council.

**OPTOM 8850 Supplementary Rotation In General Patient Care: 7 semester hours**

Prerequisites: Successful completion of all first, second, and third year coursework. Comprehensive clinical care of general population of optometric patients at the UM-St. Louis Center for Eye Care, UM-St. Louis Optometric Center, or the UM-St. Louis East St. Louis Eye Center.

**OPTOM 8870 Practice Management IV: 2 semester hours**

Prerequisites: Successful completion of all first, second and third year. Further in-depth discussion in practice management.

**OPTOM 8880 Clinic Seminar: 1 semester hour**

Prerequisites: Successful completion of all first, second and third year. Presentation and discussion of interesting clinical patients. Additional clinical testing techniques and concepts. Further discussion of patient data analysis-the process of determining diagnosis, prognosis, and therapy. Further discussions in the optometric specialties.

**OPTOM 8970 Geriatric Patient Care Delivery: 3-6 semester hours**

Prerequisite: Consent of Geriatric Residency Instructors. Direct optometric patient care to a population that is largely geriatric. Emphasis will be on integrating specialty care available for these patients to provide comprehensive vision care. Two hours of direct patient care per week are required per hour of credit. In addition, the student will attend weekly supervisory meetings. May be repeated with consent of instructor for a total of 18 credits. Patient care will become more independent of direct supervision and the type of patients seen will be more varied with each repeat.

## Music: Pedagogy

### Courses

**PDGOGY 1250 Brass Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all brass instruments including trumpet, horn, trombone, euphonium, and tuba in the school setting.

**PDGOGY 1260 Woodwind Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all woodwind instruments including flute, clarinet, oboe, bassoon, and saxophone in the school setting.

**PDGOGY 1270 String Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all string instruments including violin, viola, cello, and bass in the school setting.

**PDGOGY 1280 Percussion Instrumental Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all percussion instruments including snare drum, tom-tom, bass drum, cymbals, drumset, timpani, mallet instruments and miscellaneous percussion instruments in the school setting.

**PDGOGY 1560 Piano Pedagogy: 2 semester hours**

Prerequisite: Equivalent of AP MUS 1361 or permission of instructor. A study of methods, repertoire, and technical problems pertaining to private studio teaching for all levels of performance ability.

**PDGOGY 2220 Jazz Pedagogy: 3 semester hours**

Students will participate in interactive sessions that will "boost the jazz teaching chops" whether students are seasoned teachers or novices in the field of jazz education. A wide range of jazz teaching methods will be studied, including those that have been successful in the instructor's nationally recognized jazz camps. Lab groups will be formed for "hands on-minds on" teaching and learning. Students will experience jazz teaching techniques, examine jazz method series, listen to a variety of jazz styles, and examine and perform jazz literature from different styles.

**PDGOGY 4000 Directed Study: Variable Topic: 1-5 semester hours**

Prerequisites: Consent of Instructor. Directed independent study of selected topics in music. May be repeated, but no more than 5 hours may be applied toward a degree.

**PDGOGY 5110 Graduate Jazz Pedagogy: 3 semester hours**

Students will participate in interactive sessions that will dramatically strengthen jazz teaching strategies, introduce new jazz rehearsal techniques, and examine the best in jazz education literature and materials. A wide range of jazz-teaching methods will be studied, including those that have been successful in the instructor's nationally recognized jazz camps. Lab groups will be formed for "hands on-minds on" teaching and learning. Students will experience jazz teaching techniques, examine jazz method series, listen to a variety of jazz styles and examine and perform jazz literature from different styles. The course is for students who are seasoned teachers or novices in the field of jazz education. Student will complete a research paper or a big band arrangement.

### Courses

**PDGOGY 1250 Brass Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all brass instruments including trumpet, horn, trombone, euphonium, and tuba in the school setting.

**PDGOGY 1260 Woodwind Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all woodwind instruments including flute, clarinet, oboe, bassoon, and saxophone in the school setting.

**PDGOGY 1270 String Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all string instruments including violin, viola, cello, and bass in the school setting.

**PDGOGY 1280 Percussion Instrumental Techniques: 2 semester hours**

Prerequisites: Consent of the Department The objective of this course is to familiarize students with materials and techniques for teaching all percussion instruments including snare drum, tom-tom, bass drum, cymbals, drumset, timpani, mallet instruments and miscellaneous percussion instruments in the school setting.

**PDGOGY 1560 Piano Pedagogy: 2 semester hours**

Prerequisite: Equivalent of AP MUS 1361 or permission of instructor. A study of methods, repertoire, and technical problems pertaining to private studio teaching for all levels of performance ability.

**PDGOGY 2220 Jazz Pedagogy: 3 semester hours**

Students will participate in interactive sessions that will "boost the jazz teaching chops" whether students are seasoned teachers or novices in the field of jazz education. A wide range of jazz teaching methods will be studied, including those that have been successful in the instructor's nationally recognized jazz camps. Lab groups will be formed for "hands on-minds on" teaching and learning. Students will experience jazz teaching techniques, examine jazz method series, listen to a variety of jazz styles, and examine and perform jazz literature from different styles.

**PDGOGY 4000 Directed Study: Variable Topic: 1-5 semester hours**

Prerequisites: Consent of Instructor. Directed independent study of selected topics in music. May be repeated, but no more than 5 hours may be applied toward a degree.

**PDGOGY 5110 Graduate Jazz Pedagogy: 3 semester hours**

Students will participate in interactive sessions that will dramatically strengthen jazz teaching strategies, introduce new jazz rehearsal techniques, and examine the best in jazz education literature and materials. A wide range of jazz-teaching methods will be studied, including those that have been successful in the instructor's nationally recognized jazz camps. Lab groups will be formed for "hands on-minds on" teaching and learning. Students will experience jazz teaching techniques, examine jazz method series, listen to a variety of jazz styles and examine and perform jazz literature from different styles. The course is for students who are seasoned teachers or novices in the field of jazz education. Student will complete a research paper or a big band arrangement.

## Philosophy

## Courses

**PHIL 1021 Choice and Chance: 3 semester hours**

Prerequisites: A score of 22 or higher on the ACT Math sub-test; or a grade of C or better in a two- or four-year college intermediate algebra course; or a satisfactory score on the UMSL Math Placement Examination, obtained at most one year prior to enrollment in this course. Same as MATH 1021. This course provides an introduction to inductive logic and the theory of probability in an organized and systematic way, so as to give students tools for more effective decision-making. We will introduce the probability calculus, basic concepts of utility theory, decision theory and different approaches to understanding probability. This course is designed to be accessible to students of all levels. Satisfies mathematics proficiency.

**PHIL 1030 Present Moral Problems: 3 semester hours**

This course will explore a range of ethical dilemmas with an eye towards living the best life. How should I live? What actions are right and wrong? How should I treat myself and others? In this class, we will consider these and other issues by investigating practical problems in daily life including: human rights, the environment, hunger and poverty, war and violence, racial and ethnic discrimination, gender roles and marriage, abortion, and euthanasia,.

**PHIL 1050 Existentialism and Phenomenology: 3 semester hours**

The course will study major works by the major philosophers in the existential and phenomenological traditions. Topics will include what it means to live an authentic life, the structure and content of conscious experience, the construction of the social arena, and what it means to live in a society.

**PHIL 1090 Philosophy Looks at the Arts: 3 semester hours**

This online course will explore the distinct resources of various arts - the raw materials of each, what each can represent, express, convey - and key differences among them. After an introductory unit devoted to art in general, the course will present eight units examining the arts of painting, photography, sculpture, architecture, music, literature, drama, and film. The course will employ a variety of instructional materials. These include posted essays, streaming video, readings from an assigned text, and participation on an interface discussion board.

**PHIL 1091 Great Philosophers: 3 semester hours**

This online course introduces philosophy through a survey and examination of the ideas of fifteen of the most important figures in the history of the subject. From Socrates to Nietzsche, the questions, answers, and lives of the great philosophers are explored in a multimedia context. This course does not satisfy any of the requirements for philosophy major or minor.

**PHIL 1110 Western Philosophy I: Antiquity To The Renaissance: 3 semester hours**

Lectures and discussions tracing the development of western philosophy from its beginnings among the pre-Socratics through the Middle Ages and Renaissance. Philosophical ideas will be examined in the cultural and historical context: the Greek city-state, the rise of Christianity, etc.

**PHIL 1111 Western Philosophy II: Descartes To The Present: 3 semester hours**

Lectures and discussions on the development of western philosophy from Descartes (1596-1650) to the present. Philosophical ideas will be examined with an eye to their historical and cultural setting: the rise of modern science, the industrial revolution, the rise of capitalism, etc.

**PHIL 1120 Asian Philosophy: 3 semester hours**

Critical study of selected philosophical classics of India and China.



**PHIL 1125 Islamic Philosophy: 3 semester hours**

An introduction to arabic philosophy in the islamic classical period (roughly from the mid-ninth through the twelfth centuries). We consider the philosophical and theological background, and then examine the thought of such notable Islamic philosophers as al-Kindi, Ibn Sina, al-Ghazali, and Ibn Rushd. Topics treated typically include proofs for the existence of God, whether the world is eternal or had a beginning, the nature of the soul and whether it is immortal, and the distinction between essence and existence. This course fulfills the cultural diversity requirement.

**PHIL 1130 Approaches To Ethics: 3 semester hours**

A study and discussion of representative topics in moral philosophy such as moral skepticism, moral objectivity, theories of obligation and value, evaluation of social institutions and the relation between morality and science. Traditional and contemporary writers will be considered.

**PHIL 1150 Introduction to Philosophy: 3 semester hours**

A study and discussion of representative topics in philosophy such as free will and determinism, concepts of mind and body, the basis of value judgments, knowledge and belief, and the possibility of constructing a world view.

**PHIL 1151 Love 101: 3 semester hours**

A critical review of what media personalities, philosophers, criminal justice experts, medical experts, neuroscientists, and psychologists have said about love and its place in our lives. Included will be such topics as the neuroscience of love, love across culture, love and commitment issues, marriage and the "seven-year itch," jealousy, domestic violence, and verbal abuse. Larger questions will include the role of love in the good life; the ethics of love; the psychological consequences of obsession, breakups and divorce; arranged marriages vs. freely chosen love; and the morality of laws that affect relationships between loving partners.

**PHIL 1160 Critical Thinking: 3 semester hours**

An introduction to the language and logical structure of arguments, the principles of sound reasoning, and application of these principles in a variety of contexts.

**PHIL 1163 Disagreement, Difference, Diversity: 6 semester hours**

Same as ANTHRO 1163. This interdisciplinary course will combine material from philosophy, anthropology, and sociology to examine the ways we encounter and accommodate disagreement in our daily lives. The unifying thread is our ability to deal with various sorts of opposition: differences of opinion, differences in practice, and differences in how we construct and address both biological and cultural variation. The course will combine units on informal logic and applied ethics from philosophy together with units on the social construction of difference and the understanding of human diversity from anthropology and sociology. This course will be worth 6 SCHs.

**PHIL 1178 Superhuman Mind: 3 semester hours**

As a study of people with special neurological talents, this course will look at cases of people who became geniuses by accident, human echolocation (deaf people who can detect sound), lucid dreaming, telepathy used to solve crimes, and more.

**PHIL 1180 Science vs. God: 3 semester hours**

This course examines whether religion and science are compatible, discusses the science-religion debate historically, and broaches philosophical issues surrounding belief, especially whether belief should be based in empirical evidence or in faith. Following these introductory course sessions, the class will discuss, in detail, topics in science and religion, including creation versus evolution; human nature (including abortion and stem cell research); the nature of sexuality and gender; the science of religion; morality; the environment from a religious perspective; meaningfulness in the universe; and finally, evidence for or against the afterlife, existence of a divinity, and divine providence.

**PHIL 1185 Philosophy Of Religion: 3 semester hours**

A philosophical investigation of such problems as the nature of religious faith and experience, the relation of faith and reason, alternative concepts of deity and the problem of evil.

**PHIL 2249 Accounting Ethics: 3 semester hours**

The course is a study of moral problems as they relate to the profession of accounting. We will analyze a number of major cases (Enron, HealthSouth, etc.) in which accounting lapses were involved, and we will look at general moral theories which might illuminate these problems. A major component of the course work will be writing essays which address specific moral dilemmas which have arisen or might arise for accountants. The course is primarily online, but there will be five required 75-minute class meetings spread through the semester.

**PHIL 2250 Philosophy And Current Issues: 3 semester hours**

A careful examination of such current social controversies as women's liberation, the ethics of abortion, public accountability of holders of high offices, and the subtler forms of racism and other prejudices. Although there is no formal prerequisite, it is recommended that students have taken, or be concurrently enrolled in, at least one other philosophy course.

**PHIL 2251 Sexual Ethics: 3 semester hours**

A critical review of what philosophers, both classical and contemporary, have said about sexual experience and its place in our lives. Included will be such topics as sexual desire, sexual perversion, love and commitment, marriage and adultery, larger questions might include that role of sexual experience in the good life, issues of sexual privacy, and the morality of laws which regulate sexual activity.

**PHIL 2252 Philosophical Foundations Of Criminal Justice: 3 semester hours**

Same as CRIMIN 2252. This course will address fundamental conceptual and ethical issues that arise in the context of the legal system. Questions may include: How does punishment differ from pre-trial detention? How, if at all, can it be justified? Is the death penalty ever justified? When is it morally permissible for juries to acquit defendants who are legally guilty? Is plea bargaining unjust? why might people be morally obligated to obey the laws? Are laws restricting civil liberty (e.g. laws against abortion, homosexuality, or drug use) permissible?.

**PHIL 2253 Philosophy And Feminism: 3 semester hours**

Same as GS 2253 A critical examination of what various philosophers have said about issues of concern to women. Sample topics include oppression, racism, women's nature, femininity, marriage, motherhood, sexuality, pornography, the ethics of care.

**PHIL 2254 Business Ethics: 3 semester hours**

A critical survey from the perspective of moral theory of businesses and business practices. Topics vary but usually include some of the following: Whether the sole moral obligation of businesses is to make money; whether certain standard business practices, e.g., the creation of wants through advertising, are moral; whether businesses ought to be compelled, e.g., to protect the environment or participate in affirmative action programs.

**PHIL 2255 Environmental Ethics: 3 semester hours**

Examines such issues as the value of wilderness, our duties to animals and the natural world, pollution and development, environmental justice.

**PHIL 2256 Bioethics: 3 semester hours**

Same as GERON 2256. An examination of ethical issues in health care practice and clinical research and in public policies affecting health care. Topics include: abortion, euthanasia, health care, experimentation, informed consent and the right to health care.

**PHIL 2257 Happiness and the Meaning of Life: 3 semester hours**

This course is an accessible introduction to the historical and contemporary perspectives on happiness and the meaning of life in philosophy. It examines the nature of happiness by focusing on three major theories: happiness as pleasure, happiness as excellence and happiness as desire satisfaction. Other issues examined may include the relevance of virtue for happiness, the experience machine argument, the best way to pursue happiness as a personal or a policy goal, and other related topics.

**PHIL 2258 Medicine, Values, And Society: 3 semester hours**

Social, conceptual, and policy issues connected with medicine form the focus of the course. Topics may include: (1) role played by race & gender in design of research and distribution of care; (2) whether diseases are socially constructed categories reflecting the values of society; (3) development of social policies that offer universal access to health care; (4) the legitimacy of using psychotropic drugs to enhance life, rather than treat the disease. The course differs from Bioethics by emphasizing policy issues and their conceptual basis. Content of this course may vary.

**PHIL 2259 Engineering Ethics: 3 semester hours**

An examination of ethical issues in engineering using professional engineering codes as a starting point. The course will have a problem solving orientation, focusing on the analysis of particular cases. Actual high-profile cases such as the Challenger disaster will be considered, as well as hypothetical cases illustrating the more commonly encountered moral problems in engineering (such as accepting gifts from vendors). Topics include the engineer/manager relationship, engineers and the environment, honesty in engineering, and risk, safety, and liability.

**PHIL 2276 Philosophy of Film: 3 semester hours**

Critical study of such issues as film's relation to photography, shots and editing, documentary vs. fiction films, cinematic narration, our identification with film characters, criticism and evaluation.

**PHIL 2277 Philosophy and Food: 3 semester hours**

This course will examine issues surrounding the production, consumption, and enjoyment of food. Questions about food choices, food scarcity, self-control, and aberrant eating will be addressed. The focus will range from global issues such as population growth, the carrying capacity of the planet, famine, and GMO crops to more narrowly focused topics such as the workings of our sense of taste, our ability to evaluate and rank different food items, and the very idea of expertise in tasting.

**PHIL 2280 Minds, Brains, And Machines: 3 semester hours**

An introduction to basic philosophical issues in cognitive science. General topics include minds as computers; computers as minds, or the possibility of artificial intelligence that is truly intelligent; relationship between mental function and brain function. Some areas of current research, such as reasoning, vision, and emotion.

**PHIL 2281 Darwinism and the Philosophy of Biology: 3 semester hours**

Prerequisites: Six hours in Philosophy, graduate standing, or consent of instructor. Examines Darwin's theory of evolution by natural selection and its philosophical consequences. Besides the theory itself, topics may include (but are not limited to): how we can test evolution and what the evidence is for it; the design argument; adaptationism; evolutionary psychology; evolution and mortality; the fact-value distinction; nature versus nurture; differences between humans and other animals; evolution and human history; genetic engineering and possible futures.

**PHIL 2282 Philosophy of Science in Historical Perspective: 3 semester hours**

This course considers the history and philosophy of ancient, medieval and early modern science, with a focus on theories of scientific methodology, biology and physics. Figures treated may include Pythagoras, Hippocrates, Plato, Aristotle, Euclid, Galen, Harvey, Copernicus, Kepler, and Newton. Topics may include Hippocratic and Galenic medicine; geocentric and heliocentric astronomies; theories of induction; scientific realism vs. instrumentalism; and the role of logic and mathematics in ancient and medieval sciences. Content of this course may vary.

**PHIL 2283 Markets & Morals: 3 semester hours**

Prerequisites: MATH 1030, or equivalent. This course will explore some moral issues connected with economic markets: the reasons for and against promoting free markets and free trade; whether we should be able to buy and sell anything or are there goods and services that should be above market transactions; whether free markets make us happier; how free markets are related to individual freedom; whether the efficacy of markets requires individuals to be moral; what moral grounds there are, if any, for capitalism, libertarianism, socialism, and Marxism.

**PHIL 3286 International Business Ethics: 3 semester hours**

Same as INTL BUS 3286. The course will deal with moral issues that are raised by the increasing globalization of business. Apart from the general issue of whether this globalization is itself a good thing, we will discuss such issues as child labor, working conditions, safety standards, environmental policies, bribery and other "corrupt" practices, respect for intellectual property, etc. Frequent short papers will be assigned.

**PHIL 3301 Ancient Philosophy: 3 semester hours**

Freshman admitted by consent of department. The principal philosophical doctrines of the ancient world, with special emphasis on the philosophies of Plato and Aristotle. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3302 Medieval Philosophy: 3 semester hours**

A critical study of the important philosophies of the period from August to the Renaissance. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3303 Early Modern Philosophy: 3 semester hours**

Principal figures in the development of rationalism, empiricism and skepticism in early modern Europe, from Descartes through Hume. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3304 Kant And Nineteenth Century Philosophy: 3 semester hours**

Study of Kant and such major nineteenth century figures as Hegel and Nietzsche, Mill and Pierce. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3305 Twentieth Century Philosophy: 3 semester hours**

Representative topics in contemporary philosophy, with readings selected from pragmatism, logical positivism, linguistic analysis and existentialism. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3307 American Philosophy: 3 semester hours**

Prerequisite: Six hours of philosophy or consent of instructor. A study of selected American philosophers.

**PHIL 3360 Formal Logic: 3 semester hours**

An introductory study of logical truth and deductive inference, with emphasis on the development and mastery of a formal system.

**PHIL 3369 The Marxist Heritage: 3 semester hours**

(Same as Political Science 3690) Study of Marx and leading Marxists, designed to evaluate their influence on recent political, economic, and social thought and institutions.

**PHIL 3374 Philosophy Of Art: 3 semester hours**

Same as ART HS 3374. A critical study of such issues as the definition of art, the nature of aesthetic experience, meaning and interpretation in the arts, art and emotion, value in art.

**PHIL 3378 Philosophy of Mind: 3 semester hours**

Prerequisites: Three hours of philosophy or consent of instructor. An introduction to philosophical issues pertaining to the mind. Topics may include how the mind relates to the body, how the mind represents the world, how the mind works, consciousness, and free will.

**PHIL 3380 Philosophy Of Science: 3 semester hours**

An examination of science: what makes science special? Topics may include (but are not limited to): empiricism and of induction; paradigms and revolutions; explanation, causation and laws; realism versus instrumentalism; critiques of science such as those of feminism or postmodernism; and reductionism - ultimately is it all just physics?.

**PHIL 4401 Plato: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. A study of selected Platonic dialogues.

**PHIL 4402 Aristotle: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. A selective study of Aristotle's major works.

**PHIL 4405 Rationalism: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. An examination of the philosophies of such major figures as Descartes, Spinoza, and Leibniz.

**PHIL 4406 Empiricism: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Early Modern philosophy recommended, graduate standing, or consent of instructor. An examination of the philosophies of such major figures as Locke, Berkeley, and Hume.

**PHIL 4407 Kant: 3 semester hours**

Prerequisites: Six hours of philosophy, PHIL 3304 or equivalent recommended, graduate standing or consent of instructor. A systematic study of the Critique of Pure Reason.

**PHIL 4408 Hegel: 3 semester hours**

Prerequisites: Six hours of philosophy, PHIL 3304 or equivalent recommended, graduate standing, or consent of instructor. A critical study of the writings and influence of Hegel.

**PHIL 4410 Topics and Figures in the History of Philosophy: 3 semester hours**

Prerequisites: Nine hours of philosophy, graduate standing, or consent of instructor. In-depth examination of a particular topic, significant figure or philosophical movement from the history of philosophy. The philosopher or movement to be studied will be announced prior to registration. This is a variable content course and may be taken again for credit with the consent of the instructor and department chair.

**PHIL 4421 The Analytic Tradition: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. PHIL 3305 and PHIL 3360 strongly recommended. Course studies in depth the development of analytic philosophy with a broad emphasis on its style and substance. Topics may include early writings that set the stage for this tradition (Frege, Moore, Russell), the basic texts of Logical Positivism (Carnap, Schlick, Neurath, Hempel), and later responses including reassessment of the doctrine, the revival of naturalism, and the "death" of philosophy (Wittgenstein, Quine, Sellars). This is a variable content course that may be taken again for credit with consent of the instructor and the department chair.

**PHIL 4430 Social And Political Philosophy: 3 semester hours**

Prerequisites: Six credit hours of philosophy required or consent of instructor. This course will cover several classic works of political theory, with a particular focus on the nature of justice, the proper extent of liberty, and social contract arguments for the legitimacy of state authority. Readings from Plato, Hobbes, Locke, Hume, Rousseau, Bentham, Mill, Marx and Rawls.

**PHIL 4435 Classical Ethical Theory: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. Significant contributions to moral philosophy from Plato and Aristotle to Bentham and Mill.

**PHIL 4437 Metaethics: 3 semester hours**

Prerequisites: 6 credit hours of Philosophy. This course deals with questions regarding the foundations of ethics and the status of our ethical judgments about what's right and wrong, good and bad. The course will consider contemporary approaches to issues such as moral motivation, moral reasons, moral explanations, moral disagreement, moral knowledge, and moral supervenience, as well as various debates between realists and antirealists, and between cognitivists and expressivists.

**PHIL 4438 Recent Ethical Theory: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. A study of major contributions to twentieth-century ethics, including works by such writers as Moore, Dewey, Ross, Stevenson, Hare, and Rawls.

**PHIL 4439 Topics In Ethical Theory: 3 semester hours**

Prerequisites: PHIL 4435, PHIL 4438, nine hours of philosophy, graduate standing, or consent of instructor. Formulation and evaluation of major theories in normative ethics, metaethics, and axiology. Topics include: egoism, moral realism, act and rule utilitarianism, and varieties of naturalism and non-naturalism in ethics. This is a variable content course and can be taken again for credit with the consent of the instructor and the department chair.

**PHIL 4440 Theories Of Knowledge: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. An examination of concepts and problems involved in the characterization of knowledge. Specific topics will vary, but will usually include knowledge, belief, skepticism, evidence, certainty, perception, truth, and necessity.

**PHIL 4445 Metaphysics: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. An examination of selected metaphysical topics such as substance, universals, causality, necessity, space and time, free will, being, and identity.

**PHIL 4450 Special Readings In Philosophy: 1-3 semester hours**

Prerequisite: Consent of Department Independent study through readings, reports, and conferences. This is a content course and may be taken again up to a total of 6 credit hours with consent of instructor and department chair.

**PHIL 4451 Special Topics In Philosophy: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. A critical study of classical and/or contemporary contributions to a selected topic in philosophy. The topic to be considered will be announced prior to registration. This is a variable content course and can be taken again for credit with the consent of the instructor and the department chair.

**PHIL 4452 Feminism And Science: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. Same as GS 4452. This course will explore major themes and issues in feminist science scholarship, a body of research that focuses on the relationship between science and gender. Feminist research in the philosophy and history of science, and in the biological sciences, are emphasized. Issues include: the nature of objectivity, evidence, and truth; the factors that contribute to the acceptance or rejection of research hypothesis and theories; the nature and consequences of science's cognitive authority; and the relationship between science and values.

**PHIL 4458 Ethics And The Computer: 3 semester hours**

Prerequisites: Six hours of coursework above the level of MATH 1030 in Math/Computer Science or at least six hours of philosophy or consent of instructor. An examination of ethical issues concerning the use of computers generally and software engineering in particular. Aims at developing awareness of these issues, and skills for ethical decision-making regarding them through careful, analytical methods. Typical issues include privacy, intellectual property, computer fraud, and others.

**PHIL 4460 Advanced Formal Logic: 3 semester hours**

Prerequisites: PHIL 3360, graduate standing, or consent of instructor. Rigorous study of major developments in contemporary logic. Emphasis is given to theoretical problems and some attention is devoted to philosophical issues arising from logic.

**PHIL 4465 Theory Of Decisions And Games: 3 semester hours**

Prerequisites: Six hours of Philosophy and junior standing, or Political Science 4601 (or the equivalent) or consent of the instructor. A study of rational decision-making, including games against nature, zero-sum games, and social choices. Topics will include the following: expected utility maximization, the Prisoner's Dilemma, Nash equilibria, and Arrow's theorem on the impossibility of a social welfare function. Parts of the course are technical in nature; a prior course in mathematics (e.g., finite mathematics, calculus, statistics or an economics course with a mathematical component), symbolic logic, or some other course with comparable mathematical content. (Same as Political Science 4060).

**PHIL 4474 Topics In Aesthetics: 3 semester hours**

Prerequisites: PHIL 3374, graduate standing or consent of instructor. Selected topics, such as vision and representation, musical aesthetics, and recent theorists. This is a variable content course that may be taken again for credit with the approval of the instructor and the department chair.

**PHIL 4478 Topics In Philosophy Of Mind: 3 semester hours**

Prerequisites: PHIL 3378 or six hours of other philosophy courses or consent of instructor. An examination of selected topics at the interface of philosophical and psychological research. This is a variable content course and can be taken again for credit with the consent of the instructor and the department chair.

**PHIL 4479 Philosophy Of Cognitive Science: 3 semester hours**

Prerequisites: PHIL 3378 or PHIL 4478 or nine hours of other philosophy courses or consent of instructor. An exploration of the philosophical foundations of cognitive science, a cooperative effort of philosophers, cognitive psychologists, brain scientists, computer scientists, and others to understand the relationship between the mind and the brain.

**PHIL 4480 Topics In Philosophy Of Science: 3 semester hours**

Prerequisites: Consent of the instructor. An advanced introduction to the philosophy of science for advanced undergraduates in philosophy and graduate and professional students. Topics covered include scientific method, confirmation, explanation, the nature of theories, scientific progress, science criticism, ethics in science, and science and religion.

**PHIL 4482 Philosophy Of Social Science: 3 semester hours**

Prerequisites: Six hours of philosophy or consent of instructor. An intensive examination of selected topics such as the nature of explanation in social science versus natural science, interpretation theory, and the postmodernism debate (e.g. Habermas, Foucault, Clifford). This course may be repeated for credit on approval by the department.

**PHIL 4483 Topics In History And Philosophy Of Science: 3 semester hours**

Prerequisites: Six hours of philosophy, (PHIL 3380 strongly recommended), graduate standing, or consent of instructor. Examines in depth a particular topic or topics from either the history or philosophy of science. This is a variable content course and may be taken again for credit with the consent of the instructor and department chair.

**PHIL 4487 Topics In Philosophy Of Law: 3 semester hours**

Same as CRIMIN 4487. Prerequisites: CRIMIN 1100 and three hours of philosophy, graduate standing, or consent of instructor. An intensive study of recent philosophical debate about such issues as the authority of law, legal equality and justice, legal responsibility, self-determination and privacy, and legal punishment. This is a variable content course and may be taken again for credit with consent of the instructor and the department chair.



**PHIL 4491 Senior Seminar: 3 semester hours**

Prerequisites: Senior standing; at least 12 hours of philosophy at the 2000 level or above; or consent of instructor Intensive study of a central philosophical problem. The course emphasizes the fundamentals of philosophical writing and scholarship. Students will write a major paper to be evaluated by two members of the Philosophy Department and the course instructor.

**PHIL 5400 Proseminar In Philosophy: 3 semester hours**

Prerequisites: Graduate Standing Required of all entering Graduate Students in the Fall\_Semester of the first full year of residency. Topics vary. Other graduate students may take this course with the permission of the instructor and the director of Graduate Studies in Philosophy. Students will be expected to write papers, give presentations, and join in class discussion.

**PHIL 5403 Seminar on Themes in the History of Philosophy: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Close study of selected topics, texts, or school of thought in the history of philosophy. Topics may include but are not limited to historical theories of science, Hellenistic philosophy, Neoplatonism, and historical approaches concerning the nature of time. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5410 Seminar In Significant Figures In Philosophy: 3 semester hours**

Prerequisites: Graduate Standing In depth study of the work of a single philosopher. The philosopher selected will be announced prior to registration. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5478 Seminar In Philosophy Of Mind: 3 semester hours**

Prerequisites: Graduate standing Topics may include functionalism and physicalism; representation and the nature of propositional attitudes such as belief, desire, and the various emotions; folk psychology and knowledge of other minds; introspection and knowledge of one's own mind; conscious and unconscious mental states and processes. This is a variable content course and may be taken again for credit with consent of the instructor and the department chair.

**PHIL 5495 Thesis Research: 1-3 semester hours**

Prerequisites: Graduate standing or consent of instructor. May be repeated once for credit with the consent of the instructor and the department chair.

**PHIL 5521 Seminar In Analytic Philosophy: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Intensive study of selected topics, texts, or individuals in historical or contemporary analytic philosophy. Topics may include, but are not limited to, Frege semantics, Russell's theory of definite descriptions, logical positivism, Wittgenstein's philosophy of language. Quine on the analytic/ synthetic distinction, Kripke possible-world semantics, theories of propositions, the analysis of knowledge, contextualism in epistemology and language, relative semantics, epistemic two-dimensionalism, conceivability vs. possibility, three-dimensionalism vs. four-dimensionalism, presentism vs. eternalism, and applications of core concepts in other areas of philosophy. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5530 Seminar In Social And Political Philosophy: 3 semester hours**

An intensive study of contemporary philosophical debate about such issues such as civil liberty, economic justice, political decision-making, and state authority. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5533 Philosophy Of Law: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of origins of law and the basis for legal obligation. Specific consideration of the justification of punishment, morality and law, and legal reasoning. (Same as CCJ 5533).

**PHIL 5537 Seminar in Metaethics: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. The course deals with questions regarding the foundations of ethics and the status of our ethical judgements about what's right and wrong, good and bad. The course will consider contemporary approaches to issues such as moral motivation, moral reasons, moral explanations, moral disagreement, moral knowledge, and moral supervenience, as well as various debates between realists and antirealists, and between cognitivists and expressivists.

**PHIL 5538 Seminar In Ethical Theory: 3 semester hours**

Prerequisites: Graduate standing or consent of the instructor. In this course we will seek to answer questions from normative ethics or metaethics, which may include: What do all morally wrong actions have in common? What does the word "wrong" mean? How, if at all, can we verify moral judgements? Are any moral judgements valid for all societies? Do we always have good reason to be moral?.

**PHIL 5540 Seminar In Epistemology: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Close study of selected topics, texts, or individuals in epistemology. Topics may include (but are not limited to) theories of justification, naturalism in epistemology, and conceptions of knowledge. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5545 Seminar In Metaphysics: 3 semester hours**

Prerequisites: Graduate standing Intensive study of a selected topic or problem area in metaphysics, e.g. mind-body identity, nature of the self, or conception of time. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5551 Special Readings In Philosophy: 1-3 semester hours**

Prerequisites: Graduate Standing, written consent of instructor Independent study through readings, reports, and conferences. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5560 Seminar In Logic: 3 semester hours**

Prerequisites: Graduate standing A focused study of topics in logic and/ or its history. Representative topics include: Aristotelian logic, modal logic, the Godel incompleteness theorems, relevance logic, paraconsistent logic, free logic. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5561 Graduate Formal Logic: 3 semester hours**

Prerequisite: Graduate standing; permission of the department A rigorous introduction to formal logic that includes sentential calculus, predicate logic, and completeness proofs. May be taken for graduate credit only with permission of the graduate advisor and chair.

**PHIL 5579 Seminar In Philosophy Of Cognitive Science: 3 semester hours**

Prerequisites: Graduate standing General topics include the role of computation in cognitive science, the merits of symbolic computation and connectionism, the aims and methods of artificial intelligence, and the relationship between cognitive science and our everyday understanding of people. Specific topics may include perception, reasoning, consciousness, language, emotion, and will. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5580 Seminar In Philosophy Of Science: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Focus is on recent issues and controversies. Topics may include: theories and observation, models of explanation, confirmation, realism and antirealism, empiricism & naturalism, "social construction" and feminist views of science. This is a variable content course and may be taken again with the consent of the instructor and the department chair.

**PHIL 5582 Seminar In Philosophy Of Social Science: 3 semester hours**

Prerequisites: Graduate Standing or consent of instructor. Intensive examination of selected topics, such as the nature of explanation in social science, rationality, value-freedom and objectivity, or relation of social to natural sciences. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5590 Philosophical Issues In Other Disciplines: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. An examination of selected philosophical issues in disciplines other than philosophy. One or more such disciplines as history, political science, psychology, sociology, biology, chemistry, physics, or mathematics will be chosen. The discipline(s) and issues selected will be announced prior to registration. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

## Courses

**PHIL 1021 Choice and Chance: 3 semester hours**

Prerequisites: A score of 22 or higher on the ACT Math sub-test; or a grade of C or better in a two- or four-year college intermediate algebra course; or a satisfactory score on the UMSL Math Placement Examination, obtained at most one year prior to enrollment in this course. Same as MATH 1021. This course provides an introduction to inductive logic and the theory of probability in an organized and systematic way, so as to give students tools for more effective decision-making. We will introduce the probability calculus, basic concepts of utility theory, decision theory and different approaches to understanding probability. This course is designed to be accessible to students of all levels. Satisfies mathematics proficiency.

**PHIL 1030 Present Moral Problems: 3 semester hours**

This course will explore a range of ethical dilemmas with an eye towards living the best life. How should I live? What actions are right and wrong? How should I treat myself and others? In this class, we will consider these and other issues by investigating practical problems in daily life including: human rights, the environment, hunger and poverty, war and violence, racial and ethnic discrimination, gender roles and marriage, abortion, and euthanasia,.

**PHIL 1050 Existentialism and Phenomenology: 3 semester hours**

The course will study major works by the major philosophers in the existential and phenomenological traditions. Topics will include what it means to live an authentic life, the structure and content of conscious experience, the construction of the social arena, and what it means to live in a society.

**PHIL 1090 Philosophy Looks at the Arts: 3 semester hours**

This online course will explore the distinct resources of various arts - the raw materials of each, what each can represent, express, convey - and key differences among them. After an introductory unit devoted to art in general, the course will present eight units examining the arts of painting, photography, sculpture, architecture, music, literature, drama, and film. The course will employ a variety of instructional materials. These include posted essays, streaming video, readings from an assigned text, and participation on an interface discussion board.

**PHIL 1091 Great Philosophers: 3 semester hours**

This online course introduces philosophy through a survey and examination of the ideas of fifteen of the most important figures in the history of the subject. From Socrates to Nietzsche, the questions, answers, and lives of the great philosophers are explored in a multimedia context. This course does not satisfy any of the requirements for philosophy major or minor.

**PHIL 1110 Western Philosophy I: Antiquity To The Renaissance: 3 semester hours**

Lectures and discussions tracing the development of western philosophy from its beginnings among the pre-Socratics through the Middle Ages and Renaissance. Philosophical ideas will be examined in the cultural and historical context: the Greek city-state, the rise of Christianity, etc.

**PHIL 1111 Western Philosophy II: Descartes To The Present: 3 semester hours**

Lectures and discussions on the development of western philosophy from Decartes (1596-1650) to the present. Philosophical ideas will be examined with an eye to their historical and cultural setting: the rise of modern science, the industrial revolution, the rise of capitalism, etc.

**PHIL 1120 Asian Philosophy: 3 semester hours**

Critical study of selected philosophical classics of India and China.

**PHIL 1125 Islamic Philosophy: 3 semester hours**

An introduction to arabic philosophy in the islamic classical period (roughly from the mid-ninth through the twelfth centuries). We consider the philosophical and theological background, and then examine the thought of such notable Islamic philosophers as al-Kindi, Ibn Sina, al-Ghazali, and Ibn Rushd. Topics treated typically include proofs for the existence of God, whether the world is eternal or had a beginning, the nature of the soul and whether it is immortal, and the distinction between essence and existence. This course fulfills the cultural diversity requirement.

**PHIL 1130 Approaches To Ethics: 3 semester hours**

A study and discussion of representative topics in moral philosophy such as moral skepticism, moral objectivity, theories of obligation and value, evaluation of social institutions and the relation between morality and science. Traditional and contemporary writers will be considered.

**PHIL 1150 Introduction to Philosophy: 3 semester hours**

A study and discussion of representative topics in philosophy such as free will and determinism, concepts of mind and body, the basis of value judgments, knowledge and belief, and the possibility of constructing a world view.

**PHIL 1151 Love 101: 3 semester hours**

A critical review of what media personalities, philosophers, criminal justice experts, medical experts, neuroscientists, and psychologists have said about love and its place in our lives. Included will be such topics as the neuroscience of love, love across culture, love and commitment issues, marriage and the "seven-year itch," jealousy, domestic violence, and verbal abuse. Larger questions will include the role of love in the good life; the ethics of love; the psychological consequences of obsession, breakups and divorce; arranged marriages vs. freely chosen love; and the morality of laws that affect relationships between loving partners.

**PHIL 1160 Critical Thinking: 3 semester hours**

An introduction to the language and logical structure of arguments, the principles of sound reasoning, and application of these principles in a variety of contexts.

**PHIL 1163 Disagreement, Difference, Diversity: 6 semester hours**

Same as ANTHRO 1163. This interdisciplinary course will combine material from philosophy, anthropology, and sociology to examine the ways we encounter and accommodate disagreement in our daily lives. The unifying thread is our ability to deal with various sorts of opposition: differences of opinion, differences in practice, and differences in how we construct and address both biological and cultural variation. The course will combine units on informal logic and applied ethics from philosophy together with units on the social construction of difference and the understanding of human diversity from anthropology and sociology. This course will be worth 6 SCHs.

**PHIL 1178 Superhuman Mind: 3 semester hours**

As a study of people with special neurological talents, this course will look at cases of people who became geniuses by accident, human echolocation (deaf people who can detect sound), lucid dreaming, telepathy used to solve crimes, and more.

**PHIL 1180 Science vs. God: 3 semester hours**

This course examines whether religion and science are compatible, discusses the science-religion debate historically, and broaches philosophical issues surrounding belief, especially whether belief should be based in empirical evidence or in faith. Following these introductory course sessions, the class will discuss, in detail, topics in science and religion, including creation versus evolution; human nature (including abortion and stem cell research); the nature of sexuality and gender; the science of religion; morality; the environment from a religious perspective; meaningfulness in the universe; and finally, evidence for or against the afterlife, existence of a divinity, and divine providence.

**PHIL 1185 Philosophy Of Religion: 3 semester hours**

A philosophical investigation of such problems as the nature of religious faith and experience, the relation of faith and reason, alternative concepts of deity and the problem of evil.

**PHIL 2249 Accounting Ethics: 3 semester hours**

The course is a study of moral problems as they relate to the profession of accounting. We will analyze a number of major cases (Enron, HealthSouth, etc.) in which accounting lapses were involved, and we will look at general moral theories which might illuminate these problems. A major component of the course work will be writing essays which address specific moral dilemmas which have arisen or might arise for accountants. The course is primarily online, but there will be five required 75-minute class meetings spread through the semester.

**PHIL 2250 Philosophy And Current Issues: 3 semester hours**

A careful examination of such current social controversies as women's liberation, the ethics of abortion, public accountability of holders of high offices, and the subtler forms of racism and other prejudices. Although there is no formal prerequisite, it is recommended that students have taken, or be concurrently enrolled in, at least one other philosophy course.

**PHIL 2251 Sexual Ethics: 3 semester hours**

A critical review of what philosophers, both classical and contemporary, have said about sexual experience and its place in our lives. Included will be such topics as sexual desire, sexual perversion, love and commitment, marriage and adultery, larger questions might include that role of sexual experience in the good life, issues of sexual privacy, and the morality of laws which regulate sexual activity.

**PHIL 2252 Philosophical Foundations Of Criminal Justice: 3 semester hours**

Same as CRIMIN 2252. This course will address fundamental conceptual and ethical issues that arise in the context of the legal system. Questions may include: How does punishment differ from pre-trial detention? How, if at all, can it be justified? Is the death penalty ever justified? When is it morally permissible for juries to acquit defendants who are legally guilty? Is plea bargaining unjust? why might people be morally obligated to obey the laws? Are laws restricting civil liberty (e.g. laws against abortion, homosexuality, or drug use) permissible?.

**PHIL 2253 Philosophy And Feminism: 3 semester hours**

Same as GS 2253 A critical examination of what various philosophers have said about issues of concern to women. Sample topics include oppression, racism, women's nature, femininity, marriage, motherhood, sexuality, pornography, the ethics of care.

**PHIL 2254 Business Ethics: 3 semester hours**

A critical survey from the perspective of moral theory of businesses and business practices. Topics vary but usually include some of the following: Whether the sole moral obligation of businesses is to make money; whether certain standard business practices, e.g., the creation of wants through advertising, are moral; whether businesses ought to be compelled, e.g., to protect the environment or participate in affirmative action programs.

**PHIL 2255 Environmental Ethics: 3 semester hours**

Examines such issues as the value of wilderness, our duties to animals and the natural world, pollution and development, environmental justice.

**PHIL 2256 Bioethics: 3 semester hours**

Same as GERON 2256. An examination of ethical issues in health care practice and clinical research and in public policies affecting health care. Topics include: abortion, euthanasia, health care, experimentation, informed consent and the right to health care.

**PHIL 2257 Happiness and the Meaning of Life: 3 semester hours**

This course is an accessible introduction to the historical and contemporary perspectives on happiness and the meaning of life in philosophy. It examines the nature of happiness by focusing on three major theories: happiness as pleasure, happiness as excellence and happiness as desire satisfaction. Other issues examined may include the relevance of virtue for happiness, the experience machine argument, the best way to pursue happiness as a personal or a policy goal, and other related topics.

**PHIL 2258 Medicine, Values, And Society: 3 semester hours**

Social, conceptual, and policy issues connected with medicine form the focus of the course. Topics may include: (1) role played by race & gender in design of research and distribution of care; (2) whether diseases are socially constructed categories reflecting the values of society; (3) development of social policies that offer universal access to health care; (4) the legitimacy of using psychotropic drugs to enhance life, rather than treat the disease. The course differs from Bioethics by emphasizing policy issues and their conceptual basis. Content of this course may vary.

**PHIL 2259 Engineering Ethics: 3 semester hours**

An examination of ethical issues in engineering using professional engineering codes as a starting point. The course will have a problem solving orientation, focusing on the analysis of particular cases. Actual high-profile cases such as the Challenger disaster will be considered, as well as hypothetical cases illustrating the more commonly encountered moral problems in engineering (such as accepting gifts from vendors). Topics include the engineer/manager relationship, engineers and the environment, honesty in engineering, and risk, safety, and liability.

**PHIL 2276 Philosophy of Film: 3 semester hours**

Critical study of such issues as film's relation to photography, shots and editing, documentary vs. fiction films, cinematic narration, our identification with film characters, criticism and evaluation.

**PHIL 2277 Philosophy and Food: 3 semester hours**

This course will examine issues surrounding the production, consumption, and enjoyment of food. Questions about food choices, food scarcity, self-control, and aberrant eating will be addressed. The focus will range from global issues such as population growth, the carrying capacity of the planet, famine, and GMO crops to more narrowly focused topics such as the workings of our sense of taste, our ability to evaluate and rank different food items, and the very idea of expertise in tasting.

**PHIL 2280 Minds, Brains, And Machines: 3 semester hours**

An introduction to basic philosophical issues in cognitive science. General topics include minds as computers; computers as minds, or the possibility of artificial intelligence that is truly intelligent; relationship between mental function and brain function. Some areas of current research, such as reasoning, vision, and emotion.

**PHIL 2281 Darwinism and the Philosophy of Biology: 3 semester hours**

Prerequisites: Six hours in Philosophy, graduate standing, or consent of instructor. Examines Darwin's theory of evolution by natural selection and its philosophical consequences. Besides the theory itself, topics may include (but are not limited to): how we can test evolution and what the evidence is for it; the design argument; adaptationism; evolutionary psychology; evolution and mortality; the fact-value distinction; nature versus nurture; differences between humans and other animals; evolution and human history; genetic engineering and possible futures.

**PHIL 2282 Philosophy of Science in Historical Perspective: 3 semester hours**

This course considers the history and philosophy of ancient, medieval and early modern science, with a focus on theories of scientific methodology, biology and physics. Figures treated may include Pythagoras, Hippocrates, Plato, Aristotle, Euclid, Galen, Harvey, Copernicus, Kepler, and Newton. Topics may include Hippocratic and Galenic medicine; geocentric and heliocentric astronomies; theories of induction; scientific realism vs. instrumentalism; and the role of logic and mathematics in ancient and medieval sciences. Content of this course may vary.

**PHIL 2283 Markets & Morals: 3 semester hours**

Prerequisites: MATH 1030, or equivalent. This course will explore some moral issues connected with economic markets: the reasons for and against promoting free markets and free trade; whether we should be able to buy and sell anything or are there goods and services that should be above market transactions; whether free markets make us happier; how free markets are related to individual freedom; whether the efficacy of markets requires individuals to be moral; what moral grounds there are, if any, for capitalism, libertarianism, socialism, and Marxism.

**PHIL 3286 International Business Ethics: 3 semester hours**

Same as INTL BUS 3286. The course will deal with moral issues that are raised by the increasing globalization of business. Apart from the general issue of whether this globalization is itself a good thing, we will discuss such issues as child labor, working conditions, safety standards, environmental policies, bribery and other "corrupt" practices, respect for intellectual property, etc. Frequent short papers will be assigned.

**PHIL 3301 Ancient Philosophy: 3 semester hours**

Freshman admitted by consent of department. The principal philosophical doctrines of the ancient world, with special emphasis on the philosophies of Plato and Aristotle. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3302 Medieval Philosophy: 3 semester hours**

A critical study of the important philosophies of the period from August to the Renaissance. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3303 Early Modern Philosophy: 3 semester hours**

Principal figures in the development of rationalism, empiricism and skepticism in early modern Europe, from Descartes through Hume. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3304 Kant And Nineteenth Century Philosophy: 3 semester hours**

Study of Kant and such major nineteenth century figures as Hegel and Nietzsche, Mill and Pierce. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3305 Twentieth Century Philosophy: 3 semester hours**

Representative topics in contemporary philosophy, with readings selected from pragmatism, logical positivism, linguistic analysis and existentialism. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

**PHIL 3307 American Philosophy: 3 semester hours**

Prerequisite: Six hours of philosophy or consent of instructor. A study of selected American philosophers.

**PHIL 3360 Formal Logic: 3 semester hours**

An introductory study of logical truth and deductive inference, with emphasis on the development and mastery of a formal system.

**PHIL 3369 The Marxist Heritage: 3 semester hours**

(Same as Political Science 3690) Study of Marx and leading Marxists, designed to evaluate their influence on recent political, economic, and social thought and institutions.

**PHIL 3374 Philosophy Of Art: 3 semester hours**

Same as ART HS 3374. A critical study of such issues as the definition of art, the nature of aesthetic experience, meaning and interpretation in the arts, art and emotion, value in art.



**PHIL 3378 Philosophy of Mind: 3 semester hours**

Prerequisites: Three hours of philosophy or consent of instructor. An introduction to philosophical issues pertaining to the mind. Topics may include how the mind relates to the body, how the mind represents the world, how the mind works, consciousness, and free will.

**PHIL 3380 Philosophy Of Science: 3 semester hours**

An examination of science: what makes science special? Topics may include (but are not limited to): empiricism and of induction; paradigms and revolutions; explanation, causation and laws; realism versus instrumentalism; critiques of science such as those of feminism or postmodernism; and reductionism - ultimately is it all just physics?.

**PHIL 4401 Plato: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. A study of selected Platonic dialogues.

**PHIL 4402 Aristotle: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. A selective study of Aristotle's major works.

**PHIL 4405 Rationalism: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. An examination of the philosophies of such major figures as Descartes, Spinoza, and Leibniz.

**PHIL 4406 Empiricism: 3 semester hours**

Prerequisites: Six hours of philosophy, a course in Early Modern philosophy recommended, graduate standing, or consent of instructor. An examination of the philosophies of such major figures as Locke, Berkeley, and Hume.

**PHIL 4407 Kant: 3 semester hours**

Prerequisites: Six hours of philosophy, PHIL 3304 or equivalent recommended, graduate standing or consent of instructor. A systematic study of the Critique of Pure Reason.

**PHIL 4408 Hegel: 3 semester hours**

Prerequisites: Six hours of philosophy, PHIL 3304 or equivalent recommended, graduate standing, or consent of instructor. A critical study of the writings and influence of Hegel.

**PHIL 4410 Topics and Figures in the History of Philosophy: 3 semester hours**

Prerequisites: Nine hours of philosophy, graduate standing, or consent of instructor. In-depth examination of a particular topic, significant figure or philosophical movement from the history of philosophy. The philosopher or movement to be studied will be announced prior to registration. This is a variable content course and may be taken again for credit with the consent of the instructor and department chair.

**PHIL 4421 The Analytic Tradition: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. PHIL 3305 and PHIL 3360 strongly recommended. Course studies in depth the development of analytic philosophy with a broad emphasis on its style and substance. Topics may include early writings that set the stage for this tradition (Frege, Moore, Russell), the basic texts of Logical Positivism (Carnap, Schlick, Neurath, Hempel), and later responses including reassessment of the doctrine, the revival of naturalism, and the "death" of philosophy (Wittgenstein, Quine, Sellars). This is a variable content course that may be taken again for credit with consent of the instructor and the department chair.

**PHIL 4430 Social And Political Philosophy: 3 semester hours**

Prerequisites: Six credit hours of philosophy required or consent of instructor. This course will cover several classic works of political theory, with a particular focus on the nature of justice, the proper extent of liberty, and social contract arguments for the legitimacy of state authority. Readings from Plato, Hobbes, Locke, Hume, Rousseau, Bentham, Mill, Marx and Rawls.

**PHIL 4435 Classical Ethical Theory: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. Significant contributions to moral philosophy from Plato and Aristotle to Bentham and Mill.

**PHIL 4437 Metaethics: 3 semester hours**

Prerequisites: 6 credit hours of Philosophy. This course deals with questions regarding the foundations of ethics and the status of our ethical judgments about what's right and wrong, good and bad. The course will consider contemporary approaches to issues such as moral motivation, moral reasons, moral explanations, moral disagreement, moral knowledge, and moral supervenience, as well as various debates between realists and antirealists, and between cognitivists and expressivists.

**PHIL 4438 Recent Ethical Theory: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. A study of major contributions to twentieth-century ethics, including works by such writers as Moore, Dewey, Ross, Stevenson, Hare, and Rawls.

**PHIL 4439 Topics In Ethical Theory: 3 semester hours**

Prerequisites: PHIL 4435, PHIL 4438, nine hours of philosophy, graduate standing, or consent of instructor. Formulation and evaluation of major theories in normative ethics, metaethics, and axiology. Topics include: egoism, moral realism, act and rule utilitarianism, and varieties of naturalism and non-naturalism in ethics. This is a variable content course and can be taken again for credit with the consent of the instructor and the department chair.

**PHIL 4440 Theories Of Knowledge: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. An examination of concepts and problems involved in the characterization of knowledge. Specific topics will vary, but will usually include knowledge, belief, skepticism, evidence, certainty, perception, truth, and necessity.

**PHIL 4445 Metaphysics: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. An examination of selected metaphysical topics such as substance, universals, causality, necessity, space and time, free will, being, and identity.

**PHIL 4450 Special Readings In Philosophy: 1-3 semester hours**

Prerequisite: Consent of Department Independent study through readings, reports, and conferences. This is a content course and may be taken again up to a total of 6 credit hours with consent of instructor and department chair.

**PHIL 4451 Special Topics In Philosophy: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. A critical study of classical and/or contemporary contributions to a selected topic in philosophy. The topic to be considered will be announced prior to registration. This is a variable content course and can be taken again for credit with the consent of the instructor and the department chair.

**PHIL 4452 Feminism And Science: 3 semester hours**

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. Same as GS 4452. This course will explore major themes and issues in feminist science scholarship, a body of research that focuses on the relationship between science and gender. Feminist research in the philosophy and history of science, and in the biological sciences, are emphasized. Issues include: the nature of objectivity, evidence, and truth; the factors that contribute to the acceptance or rejection of research hypothesis and theories; the nature and consequences of science's cognitive authority; and the relationship between science and values.

**PHIL 4458 Ethics And The Computer: 3 semester hours**

Prerequisites: Six hours of coursework above the level of MATH 1030 in Math/Computer Science or at least six hours of philosophy or consent of instructor. An examination of ethical issues concerning the use of computers generally and software engineering in particular. Aims at developing awareness of these issues, and skills for ethical decision-making regarding them through careful, analytical methods. Typical issues include privacy, intellectual property, computer fraud, and others.

**PHIL 4460 Advanced Formal Logic: 3 semester hours**

Prerequisites: PHIL 3360, graduate standing, or consent of instructor. Rigorous study of major developments in contemporary logic. Emphasis is given to theoretical problems and some attention is devoted to philosophical issues arising from logic.

**PHIL 4465 Theory Of Decisions And Games: 3 semester hours**

Prerequisites: Six hours of Philosophy and junior standing, or Political Science 4601 (or the equivalent) or consent of the instructor. A study of rational decision-making, including games against nature, zero-sum games, and social choices. Topics will include the following: expected utility maximization, the Prisoner's Dilemma, Nash equilibria, and Arrow's theorem on the impossibility of a social welfare function. Parts of the course are technical in nature; a prior course in mathematics (e.g., finite mathematics, calculus, statistics or an economics course with a mathematical component), symbolic logic, or some other course with comparable mathematical content. (Same as Political Science 4060).

**PHIL 4474 Topics In Aesthetics: 3 semester hours**

Prerequisites: PHIL 3374, graduate standing or consent of instructor. Selected topics, such as vision and representation, musical aesthetics, and recent theorists. This is a variable content course that may be taken again for credit with the approval of the instructor and the department chair.

**PHIL 4478 Topics In Philosophy Of Mind: 3 semester hours**

Prerequisites: PHIL 3378 or six hours of other philosophy courses or consent of instructor. An examination of selected topics at the interface of philosophical and psychological research. This is a variable content course and can be taken again for credit with the consent of the instructor and the department chair.

**PHIL 4479 Philosophy Of Cognitive Science: 3 semester hours**

Prerequisites: PHIL 3378 or PHIL 4478 or nine hours of other philosophy courses or consent of instructor. An exploration of the philosophical foundations of cognitive science, a cooperative effort of philosophers, cognitive psychologists, brain scientists, computer scientists, and others to understand the relationship between the mind and the brain.

**PHIL 4480 Topics In Philosophy Of Science: 3 semester hours**

Prerequisites: Consent of the instructor. An advanced introduction to the philosophy of science for advanced undergraduates in philosophy and graduate and professional students. Topics covered include scientific method, confirmation, explanation, the nature of theories, scientific progress, science criticism, ethics in science, and science and religion.

**PHIL 4482 Philosophy Of Social Science: 3 semester hours**

Prerequisites: Six hours of philosophy or consent of instructor. An intensive examination of selected topics such as the nature of explanation in social science versus natural science, interpretation theory, and the postmodernism debate (e.g. Habermas, Foucault, Clifford). This course may be repeated for credit on approval by the department.

**PHIL 4483 Topics In History And Philosophy Of Science: 3 semester hours**

Prerequisites: Six hours of philosophy, (PHIL 3380 strongly recommended), graduate standing, or consent of instructor. Examines in depth a particular topic or topics from either the history or philosophy of science. This is a variable content course and may be taken again for credit with the consent of the instructor and department chair.

**PHIL 4487 Topics In Philosophy Of Law: 3 semester hours**

Same as CRIMIN 4487. Prerequisites: CRIMIN 1100 and three hours of philosophy, graduate standing, or consent of instructor. An intensive study of recent philosophical debate about such issues as the authority of law, legal equality and justice, legal responsibility, self-determination and privacy, and legal punishment. This is a variable content course and may be taken again for credit with consent of the instructor and the department chair.

**PHIL 4491 Senior Seminar: 3 semester hours**

Prerequisites: Senior standing; at least 12 hours of philosophy at the 2000 level or above; or consent of instructor. Intensive study of a central philosophical problem. The course emphasizes the fundamentals of philosophical writing and scholarship. Students will write a major paper to be evaluated by two members of the Philosophy Department and the course instructor.

**PHIL 5400 Proseminar In Philosophy: 3 semester hours**

Prerequisites: Graduate Standing Required of all entering Graduate Students in the Fall\_Semester of the first full year of residency. Topics vary. Other graduate students may take this course with the permission of the instructor and the director of Graduate Studies in Philosophy. Students will be expected to write papers, give presentations, and join in class discussion.

**PHIL 5403 Seminar on Themes in the History of Philosophy: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Close study of selected topics, texts, or school of thought in the history of philosophy. Topics may include but are not limited to historical theories of science, Hellenistic philosophy, Neoplatonism, and historical approaches concerning the nature of time. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5410 Seminar In Significant Figures In Philosophy: 3 semester hours**

Prerequisites: Graduate Standing. In depth study of the work of a single philosopher. The philosopher selected will be announced prior to registration. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5478 Seminar In Philosophy Of Mind: 3 semester hours**

Prerequisites: Graduate standing. Topics may include functionalism and physicalism; representation and the nature of propositional attitudes such as belief, desire, and the various emotions; folk psychology and knowledge of other minds; introspection and knowledge of one's own mind; conscious and unconscious mental states and processes. This is a variable content course and may be taken again for credit with consent of the instructor and the department chair.

**PHIL 5495 Thesis Research: 1-3 semester hours**

Prerequisites: Graduate standing or consent of instructor. May be repeated once for credit with the consent of the instructor and the department chair.

**PHIL 5521 Seminar In Analytic Philosophy: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Intensive study of selected topics, texts, or individuals in historical or contemporary analytic philosophy. Topics may include, but are not limited to, Frege semantics, Russell's theory of definite descriptions, logical positivism, Wittgenstein's philosophy of language. Quine on the analytic/ synthetic distinction, Kripke possible-world semantics, theories of propositions, the analysis of knowledge, contextualism in epistemology and language, relative semantics, epistemic two-dimensionalism, conceivability vs. possibility, three-dimensionalism vs. four-dimensionalism, presentism vs. eternalism, and applications of core concepts in other areas of philosophy. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5530 Seminar In Social And Political Philosophy: 3 semester hours**

An intensive study of contemporary philosophical debate about such issues such as civil liberty, economic justice, political decision-making, and state authority. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5533 Philosophy Of Law: 3 semester hours**

Prerequisite: Graduate standing or consent of instructor. Examination of origins of law and the basis for legal obligation. Specific consideration of the justification of punishment, morality and law, and legal reasoning. (Same as CCJ 5533).

**PHIL 5537 Seminar in Metaethics: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. The course deals with questions regarding the foundations of ethics and the status of our ethical judgements about what's right and wrong, good and bad. The course will consider contemporary approaches to issues such as moral motivation, moral reasons, moral explanations, moral disagreement, moral knowledge, and moral supervenience, as well as various debates between realists and antirealists, and between cognitivists and expressivists.

**PHIL 5538 Seminar In Ethical Theory: 3 semester hours**

Prerequisites: Graduate standing or consent of the instructor. In this course we will seek to answer questions from normative ethics or metaethics, which may include: What do all morally wrong actions have in common? What does the word "wrong" mean? How, if at all, can we verify moral judgements? Are any moral judgements valid for all societies? Do we always have good reason to be moral?.

**PHIL 5540 Seminar In Epistemology: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Close study of selected topics, texts, or individuals in epistemology. Topics may include (but are not limited to) theories of justification, naturalism in epistemology, and conceptions of knowledge. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5545 Seminar In Metaphysics: 3 semester hours**

Prerequisites: Graduate standing Intensive study of a selected topic or problem area in metaphysics, e.g. mind-body identity, nature of the self, or conception of time. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5551 Special Readings In Philosophy: 1-3 semester hours**

Prerequisites: Graduate Standing, written consent of instructor  
Independent study through readings, reports, and conferences. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5560 Seminar In Logic: 3 semester hours**

Prerequisites: Graduate standing A focused study of topics in logic and/ or its history. Representative topics include: Aristotelian logic, modal logic, the Godel incompleteness theorems, relevance logic, paraconsistent logic, free logic. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5561 Graduate Formal Logic: 3 semester hours**

Prerequisite: Graduate standing; permission of the department A rigorous introduction to formal logic that includes sentential calculus, predicate logic, and completeness proofs. May be taken for graduate credit only with permission of the graduate advisor and chair.

**PHIL 5579 Seminar In Philosophy Of Cognitive Science: 3 semester hours**

Prerequisites: Graduate standing General topics include the role of computation in cognitive science, the merits of symbolic computation and connectionism, the aims and methods of artificial intelligence, and the relationship between cognitive science and our everyday understanding of people. Specific topics may include perception, reasoning, consciousness, language, emotion, and will. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

**PHIL 5580 Seminar In Philosophy Of Science: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. Focus is on recent issues and controversies. Topics may include: theories and observation, models of explanation, confirmation, realism and antirealism, empiricism & naturalism, "social construction" and feminist views of science. This is a variable content course and may be taken again with the consent of the instructor and the department chair.

**PHIL 5582 Seminar In Philosophy Of Social Science: 3 semester hours**

Prerequisites: Graduate Standing or consent of instructor. Intensive examination of selected topics, such as the nature of explanation in social science, rationality, value-freedom and objectivity, or relation of social to natural sciences. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5590 Philosophical Issues In Other Disciplines: 3 semester hours**

Prerequisites: Graduate standing or consent of instructor. An examination of selected philosophical issues in disciplines other than philosophy. One or more such disciplines as history, political science, psychology, sociology, biology, chemistry, physics, or mathematics will be chosen. The discipline(s) and issues selected will be announced prior to registration. This is a variable content course and may be taken again for credit with the consent of the instructor and the department chair.

## Physical Education

### Courses

**PHY ED 1124 Principles & Practice In 1St Aid & Cardiopulmonary Resuscitation: 1 semester hour**

The course provides theory and supervised practice in first aid and cardiopulmonary resuscitation leading to American Red Cross certification in those areas.



**PHY ED 2134 Personal Physical Fitness: 3 semester hours**

Prerequisite: Consent of instructor. A study of the relationship between vigorous physical activity and individual well-being. Emphasis will be placed on an individualized analysis of health fitness, resulting in a prescribed program to develop optimal levels of physical fitness, including aerobic fitness, strength, muscular endurance, flexibility, body composition, and lifetime sports considerations.

**PHY ED 3204 Special Topics In Physical Education: 1-3 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports, field study or research.

**PHY ED 3261 Physical Activity For The Exceptional Learner: 2 semester hours**

Prerequisite: SPEC ED 3311 and TCH ED 3313. A study of the special physical activity and exercise needs, interests, and problems of the exceptional learner, with considerable emphasis on the development of methods and competencies, in modifying physical activities.

**PHY ED 3276 Sociological Aspects Of Physical Education And Sport: 2 semester hours**

Study of the theoretical, methodological, experimental, and applied foundations of sport and physical activity programs in society and the schools. Applied issues include cultural, political, economical, legal, and educational aspects of sport and physical activity programs.

**PHY ED 3282 Physical Growth And Motor Development: 3 semester hours**

Prerequisite: PSYCH 2270 and PHY ED 3465. An examination of the physical growth and aging, and motor development of the human being over the life span. Emphasis on evaluative tools, techniques and studies of research findings. Laboratory field experience for observing individuals. Attention is directed toward acquisition of basic skills, perceptual-motor development, fitness development, and age-related changes in information processing. A Required course for Physical Education majors; an elective course for early childhood, special, and Elementary Education majors.

**PHY ED 3283 Kinesiology: 3 semester hours**

Prerequisite: HLTH PE 3280 and math proficiency. Study of the biomechanics of human motion with particular application to performance in sport activities.

**PHY ED 3287 Seminar In Exercise Science: 1-3 semester hours**

Prerequisites: HLTH PE 3284 or consent of Instructor. Study of current topics in the research and practice of exercise science, especially those required for certifications in the field. An emphasis will be placed on application of research to professional situations. Some field experience may be required. May be repeated as long as the topic is different for a maximum of 6 credit hours.

**PHY ED 3330 Designing Physical Activity Programs: 3 semester hours**

Prerequisite: HLTH PE 3284 or consent of instructor. Designing physical activity regimes for individualized and group programming based upon physical fitness assessment. Health, nutrition, age, physical fitness, and testing aspects are considered in developing specialized exercise programming based upon current research and best practices.

**PHY ED 3422 Teaching Of Skills: Grades Pk-4: 4 semester hours**

Prerequisites: Completion of 15 hours of level II courses. Study of developmental movement activities and appropriate learning experiences found in PK-4 grade level programs, with emphasis on developmental sequencing and the design of appropriate learning activities, materials, and effective pedagogical skills.

**PHY ED 3423 Teaching Of Skills: Grades 5-9: 3 semester hours**

Prerequisites: Completion of 15 hours of Level II courses. Study of sports and physical activities commonly found in the curriculum for grades 5-9, with emphasis on critical cues analysis, developmental sequencing, and the design of appropriate learning activities, materials, and pedagogical skills.

**PHY ED 3424 Teaching Of Skills: Grades 9-12: 3 semester hours**

Prerequisites: Completion of 15 hours of Level II courses. Study of sport and physical activities predominately found in physical education programs at these grade levels, with emphasis given to critical cue analysis, developmental sequencing, and the design of appropriate learning activities, materials, and pedagogical skills.

**PHY ED 3425 Teaching Skills: Movement, Dance, And Rhythms: 3 semester hours**

Prerequisites: Completion of 15 credit hrs of Level II courses. Study of movement analysis and techniques of teaching fundamental movement skills, rhythmic activities, creative movement, and dance forms commonly taught in school settings. Emphasis will be given to developmental sequencing and the design of appropriate learning activities, materials, and pedagogical skills.

**PHY ED 3465 Physical Education Activities In The Elementary School: 3 semester hours**

Objectives of physical education for the elementary school child with applications of choice of activities, organization of program, theory, practices.

**PHY ED 3468 Curriculum And Methods Of Teaching Physical Education: 3 semester hours**

Prerequisite: PHY ED 101 or TCH ED 3213. Study of the scope and sequence of the school program in physical education with emphasis on planning processes, content selection, management procedures, instructional strategies, and program assessment.

**PHY ED 3931 Adult Exercise Leadership: 3 semester hours**

Prerequisites: HLTH PE 3284 or equivalent. Study of the roles, functions, and skills necessary for those entering careers that promote fitness and regular exercise in adults.

**PHY ED 5248 Teaching Health In The Secondary School: Grades 9-12: 3 semester hours**

Prerequisites: TCH ED 2211 or equivalent, junior or graduate standing, or permission of the instructor. A study of the methods for health education in the secondary school. This class will examine the instructional program, ways to provide a healthful environment in the school, and health services for the high school student.

**PHY ED 5380 Nutrition For Human Performance: 3 semester hours**

A study of human nutrition and its relationship to human performance. Consideration is given to nutrients - function, food source, health concerns and implications energy intake and expenditure; special considerations - body composition including weight gain and loss ergogenic aides competitive athletes, older adults, children and teens, pregnant women, disease risk, fluid and electrolyte balance, and specific sport activities.

**PHY ED 6462 The Physical Education Curriculum: 3 semester hours**

Prerequisite: Consent of instructor. A study of current practices, problems, trends and research involved in the analysis and development of the physical education curriculum.



**PHY ED 6464 Analysis Of Teaching In Physical Education: 3 semester hours**

Prerequisite: Consent of instructor. A study of trends and research relating to teaching methodology, teacher effectiveness, and supervision of instruction in physical education. Emphasis will be given to the application of research on teacher effectiveness in the instructional process in physical education.

**PHY ED 6478 Problems And Research In Physical Education: 3 semester hours**

A study of potential research problems and research processes in specific physical education subdisciplines. A research project will be completed in the student's physical education subdiscipline interest area.

**PHY ED 6497 Problems: 1-10 semester hours**

Selected problems to meet the needs of individual students.

**PHY ED 7492 Directed Readings In Curriculum And Instruction: 1-6 semester hours**

Prerequisites: Graduate Standing, one graduate course in Curriculum and Instruction, and permission of the instructor. Independent study into the current research, literature, and issues in the areas of physical education curriculum and instruction.

**PHY ED 7494 Directed Readings In Motor Behavior: 1-6 semester hours**

Prerequisites: Graduate standing, one graduate course in motor behavior, and permission of the instructor. Independent study into the current research, literature, and issues in the area of motor behavior.

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**PHY ED 3204 Special Topics In Physical Education: 1-3 semester hours**

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Prerequisites: HLTH PE 3284 or consent of Instructor. Study of current topics in the research and practice of exercise science, especially those required for certifications in the field. An emphasis will be placed on application of research to professional situations. Some field experience may be required. May be repeated as long as the topic is different for a maximum of 6 credit hours.

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Prerequisite: HLTH PE 3284 or consent of instructor. Designing physical activity regimes for individualized and group programming based upon physical fitness assessment. Health, nutrition, age, physical fitness, and testing aspects are considered in developing specialized exercise programming based upon current research and best practices.

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**PHY ED 3423 Teaching Of Skills: Grades 5-9: 3 semester hours**

Prerequisites: Completion of 15 hours of Level II courses. Study of sports and physical activities commonly found in the curriculum for grades 5-9, with emphasis on critical cues analysis, developmental sequencing, and the design of appropriate learning activities, materials, and pedagogical skills.

**PHY ED 3424 Teaching Of Skills: Grades 9-12: 3 semester hours**

Prerequisites: Completion of 15 hours of Level II courses. Study of sport and physical activities predominately found in physical education programs at these grade levels, with emphasis given to critical cue analysis, developmental sequencing, and the design of appropriate learning activities, materials, and pedagogical skills.

**PHY ED 3425 Teaching Skills: Movement, Dance, And Rhythms: 3 semester hours**

Prerequisites: Completion of 15 credit hrs of Level II courses. Study of movement analysis and techniques of teaching fundamental movement skills, rhythmic activities, creative movement, and dance forms commonly taught in school settings. Emphasis will be given to developmental sequencing and the design of appropriate learning activities, materials, and pedagogical skills.

**PHY ED 3465 Physical Education Activities In The Elementary School: 3 semester hours**

Objectives of physical education for the elementary school child with applications of choice of activities, organization of program, theory, practices.

**PHY ED 3468 Curriculum And Methods Of Teaching Physical Education: 3 semester hours**

Prerequisite: PHY ED 101 or TCH ED 3213. Study of the scope and sequence of the school program in physical education with emphasis on planning processes, content selection, management procedures, instructional strategies, and program assessment.

**PHY ED 3931 Adult Exercise Leadership: 3 semester hours**

Prerequisites: HLTH PE 3284 or equivalent. Study of the roles, functions, and skills necessary for those entering careers that promote fitness and regular exercise in adults.

**PHY ED 5248 Teaching Health In The Secondary School: Grades 9-12: 3 semester hours**

Prerequisites: TCH ED 2211 or equivalent, junior or graduate standing, or permission of the instructor. A study of the methods for health education in the secondary school. This class will examine the instructional program, ways to provide a healthful environment in the school, and health services for the high school student.

**PHY ED 5380 Nutrition For Human Performance: 3 semester hours**

A study of human nutrition and its relationship to human performance. Consideration is given to nutrients - function, food source, health concerns and implications energy intake and expenditure; special considerations - body composition including weight gain and loss ergogenic aides competitive athletes, older adults, children and teens, pregnant women, disease risk, fluid and electrolyte balance, and specific sport activities.

**PHY ED 6462 The Physical Education Curriculum: 3 semester hours**

Prerequisite: Consent of instructor. A study of current practices, problems, trends and research involved in the analysis and development of the physical education curriculum.

**PHY ED 6464 Analysis Of Teaching In Physical Education: 3 semester hours**

Prerequisite: Consent of instructor. A study of trends and research relating to teaching methodology, teacher effectiveness, and supervision of instruction in physical education. Emphasis will be given to the application of research on teacher effectiveness in the instructional process in physical education.

**PHY ED 6478 Problems And Research In Physical Education: 3 semester hours**

A study of potential research problems and research processes in specific physical education subdisciplines. A research project will be completed in the student's physical education subdiscipline interest area.

**PHY ED 6497 Problems: 1-10 semester hours**

Selected problems to meet the needs of individual students.

**PHY ED 7492 Directed Readings In Curriculum And Instruction: 1-6 semester hours**

Prerequisites: Graduate Standing, one graduate course in Curriculum and Instruction, and permission of the instructor. Independent study into the current research, literature, and issues in the areas of physical education curriculum and instruction.

**PHY ED 7494 Directed Readings In Motor Behavior: 1-6 semester hours**

Prerequisites: Graduate standing, one graduate course in motor behavior, and permission of the instructor. Independent study into the current research, literature, and issues in the area of motor behavior.

## Physics

### Courses

**PHYSICS 1001 How Things Work: 3 semester hours**

Can baseball players hit home runs more easily when the weather is hot and humid? This course provides a practical introduction to understanding common life experiences by using physical intuition and basic ideas of physics. Powerful scientific principles are demonstrated through topics ranging from airplane wings to compact disk players, from lightning strikes to lasers.

**PHYSICS 1011 Basic Physics I: 4 semester hours**

Prerequisites: MATH 1030 and MATH 1035, MATH 1100 or MATH 1800 strongly recommended. A course specifically designed for students in health and life sciences covering the topics in classical mechanics such as kinematics, Newton's laws, energy, momentum and oscillations. This course will not fulfill the PHYSICS 2111 requirement for physics, chemistry, and engineering majors. Three classroom hours and two hours of laboratory per week.

**PHYSICS 1011A Basic Physics I: 3 semester hours**

Prerequisites: MATH 1030 and MATH 1035, MATH 1100 or MATH 1800 strongly recommended. A course specifically designed for students in health and life sciences, covering the topics of classical mechanics, heat and sound. Will not fulfill the PHYSICS 2111 requirement for physics, chemistry, and engineering majors. Three classroom hours per week. There is no laboratory associated with this course.

**PHYSICS 1012 Basic Physics II: 4 semester hours**

Prerequisites: PHYSICS 1011. A continuation of PHYSICS 1011. A course specifically designed for students in health and life sciences covering electricity, magnetism, light, optics and waves. This course will not fulfill the PHYSICS 2112 requirement for physics, chemistry, and engineering majors. Three classroom hours and two hours of laboratory per week.

**PHYSICS 1012A Basic Physics II: 3 semester hours**

Prerequisites: PHYSICS 1011 or PHYSICS 1011A. A continuation of PHYSICS 1011. A course specifically designed for students in health and life sciences covering the topics of electricity, magnetism, light and radiation. Will not fulfill the PHYSICS 2112 requirement for physics, chemistry, and engineering majors. Three classroom hours. There is no laboratory associated with this course.

**PHYSICS 1099 Windows On Physics: 1 semester hour**

A seminar designed to introduce physics majors to research areas in physics and physics-related fields in the Department of Physics and Astronomy. In addition to fundamental areas of physics, the areas of astrophysics, biophysics, materials science, and nanotechnology will be included. Career opportunities for students with physics degrees will be discussed and the physics curriculum will be reviewed. The course meets weekly and is required of all physics majors and minors who are transfer students.

**PHYSICS 2111 Physics: Mechanics And Heat: 5 semester hours**

Prerequisites: MATH 1900 (may be taken concurrently). An introduction to the phenomena, concepts, and laws of mechanics and heat for physics majors and students in other departments. Three classroom hours, one hour discussion, and two hours of laboratory per week.

**PHYSICS 2112 Physics: Electricity, Magnetism, And Optics: 5 semester hours**

Prerequisites: PHYSICS 2111 and MATH 2000 (MATH 2000 may be taken concurrently). A phenomenological introduction to the concepts and laws of electricity and magnetism, electromagnetic waves, optics and electrical circuits for physics majors and students in other departments. Three hours of lecture, one hour of discussion, and two hours of laboratory per week.

**PHYSICS 3200 Mathematical Methods Of Theoretical Physics: 3 semester hours**

Prerequisites: PHYSICS 2112 and MATH 2000 Mathematical techniques specifically used in the study of mechanics, electricity, magnetism, and quantum physics are developed in the context of various physical problems. Course includes the topics of vector calculus, coordinate systems, the Laplace equation and its solutions, elementary Fourier analysis, & complex variables. Applications to electrostatics, mechanics, and fluid dynamics are emphasized. Three hours of lecture per week.

**PHYSICS 3221 Mechanics: 3 semester hours**

Prerequisites: PHYSICS 3200 and MATH 2020 (MATH 2020 may be taken concurrently) Advanced course covering single and many particle dynamics, rigid-body dynamics, and oscillations. Variational principles and Hamiltonian formulations of mechanics are covered. Three hours of lecture per week.

**PHYSICS 3223 Electricity And Magnetism: 3 semester hours**

Prerequisites: PHYSICS 3200 and MATH 2020 (MATH 2020 may be taken concurrently) Advanced course covering the rigorous development, from basic laws, of Maxwell's equations for electromagnetic fields along with applications of these equations. Topics covered are electrostatics and electrodynamics including currents, magnetic fields, motion of charged particles in fields and an introduction to electromagnetic waves. Three hours of lecture per week.

**PHYSICS 3231 Introduction To Modern Physics I: 3 semester hours**

Prerequisites: PHYSICS 2111, PHYSICS 2112, and MATH 2020 (may be taken concurrently) and PHYSICS 3200 strongly recommended. Photons and the wave nature of particles, wave mechanics, Schrodinger equation, with applications to atomic physics; and radiation; the physics of solids; elementary particles; special relativity; health physics. Three hours of lecture per week.

**PHYSICS 3281 Directed Readings In Physics: 1-5 semester hours**

Prerequisite: Consent of Instructor An independent study of special topics in physics. A paper may be required on an approved topic. Topics must be substantially different. Hours arranged.

**PHYSICS 3390 Research: 1-10 semester hours**

Prerequisite: Consent of department. Independent physics research projects arranged between student and instructor. Hours arranged.

**PHYSICS 4305 Bayesian Data analysis for the Sciences: 3 semester hours**

Prerequisites: Consent of Instructor. This is a cross-disciplinary course in two parts. Part one covers Bayesian inference as applied to data analysis in general, with a special focus on the mathematics of model-selection in the physical and life sciences. Part two concentrates specifically on the Bayesian use of log-probability (i.e. information) measures to track order-disorder transitions in thermodynamics, and to track the evolution of sub-system correlations (via both digital and analog means) in a wide variety of complex systems. Expect weekly empirical observation exercises, and opportunities for asynchronous as well as synchronous collaboration.

**PHYSICS 4306 Nanoscience Practicals: 1-3 semester hours**

Studies of Nanoscience characterization, synthesis, modeling techniques designed for clients of these tools, as well as for technical users interested in a current overview. Course consists of a set of 1/3 semester modules. Check with the instructor on more specialized modules, (e.g. on materials microscopy), if interested. Each module will cover instrumentation, current applications, weaknesses, and will involve lab visits for hands-on experience, weekly web interaction and classroom hours.

**PHYSICS 4308 Transmission Electron Microscopy: 3 semester hours**

Prerequisite: Consent of instructor. Course introduces students to transmission electron microscopy techniques and their applications to solving challenging materials and biological problems. Course includes fundamental principles (electron optics), electron-specimen interactions, diffraction of electrons, image formation and interpretation, image processing and analysis, energy dispersive X-ray spectroscopy, electron energy loss spectroscopy, and sample preparation of both biological and non-biological systems. Laboratory experiments will provide students "hands-on" experience with TEM operations and problem solving skills. Successful completion of the course enables students to independently operate transmission electron microscopes to perform basic research experiments. This course is ideal for students interested in ultrastructural or nanocharacterization of biological or materials systems. Two classroom hours and two hours of laboratory per week.

**PHYSICS 4309 Scanning Probe Microscopy: 3 semester hours**

Prerequisites: Consent of instructor A lecture/laboratory study of research techniques using scanning probe microscopy. Topics include atomic force microscopy, scanning tunneling microscopy, feedback control, scanning tip fabrication, scan calibrations, air/solution/vacuum imaging, image processing and analysis, near-field optical probes, metrology, and lateral force/displacement microscopy. Applications in physics, chemistry, biology, engineering and surface science are discussed. Two hours lecture and two hours laboratory per week.

**PHYSICS 4310 Modern Electronics: 3 semester hours**

An integrated recitation/laboratory study of modern analog and digital electronics with emphasis on integrated circuits. Topics include circuit elements, operational amplifiers, logic gates, counters, ac/dc converters, noise reduction, microprocessors, embedded microcontrollers, and digital processing. Three hours of lecture/laboratory per week.

**PHYSICS 4311 Advanced Physics Laboratory I: 3 semester hours**

Prerequisite: Advanced standing with at least nine completed hours of Physics at or above the 3000 level. Physics majors are introduced to the experimental techniques used in research. A student will choose and do several special problems during the semester. Six hours laboratory per week.

**PHYSICS 4323 Modern Optics: 3 semester hours**

Prerequisite: PHYSICS 3223 A study of modern optics including diffraction theory, polarization, light propagation in solids, quantum optics, and coherence.

**PHYSICS 4331 Intro To Quantum Mechanics: 3 semester hours**

Prerequisites: PHYSICS 3200 and PHYSICS 3231 Photons and the wave nature of particles; wave mechanics, Schrodinger equation, operator and matrix formulations, and Dirac notation; applications to single particle systems, atomic physics, and spectroscopy.

**PHYSICS 4341 Thermal And Statistical Physics: 3 semester hours**

Prerequisites: MATH 2000 and PHYSICS 3231. Introduction to statistical mechanics, classical thermodynamics, and kinetic theory.



**PHYSICS 4343 Selected Topics In Physics I: 3 semester hours**

Prerequisites: PHYSICS 3221, PHYSICS 3223, PHYSICS 3231, PHYSICS 4341 Topics include special phenomena for research areas such as physics of waves, biophysics, nonlinear physics, geophysical fluid dynamics and the atmospheric sciences treated by methods of advanced mechanics, electromagnetism, statistical mechanics, thermodynamics and quantum mechanics. Three hours of lecture per week.

**PHYSICS 4347 Biophysics Of Imaging: 4 semester hours**

Prerequisites: PHYSICS 3231, BIOL 1821, and BIOL 1831 An introduction to the application of physical principles to problems in medical physics and biology, with a particular focus on the biophysics of various technologies for imaging both human patients and biological macromolecules. Topics covered will include the principles of x-ray crystallography, metabolic and optical changes in the brain, NMR and fMRI, magnetoencephalography, PET imaging, the electrophysiology of EEG and ECG, dynamics in the body and brain, and dynamics in genetics. Laboratory projects on brain imaging and data analysis are an integral part of the course. Three classroom hours and two laboratory hours per week.

**PHYSICS 4350 Computational Physics: 3 semester hours**

Prerequisite: PHYSICS 3221, PHYSICS 3223, and PHYSICS 3231. Computer Analysis In Physics; Solutions Of Eigenvalue Problems; Coupled Differential Equations; And Writing Of Fortran Programs.

**PHYSICS 4351 Elementary Solid State Physics: 3 semester hours**

Prerequisites: PHYSICS 4331 Theoretical and experimental aspects of solid state physics, including one-dimensional band theory of solids; electron emission from metals and semiconductors; electrical and thermal conductivity of solids.

**PHYSICS 4353 Physics Of Fluids: 3 semester hours**

Prerequisites: PHYSICS 3221, PHYSICS 3223, and PHYSICS 4341, or consent of instructor. Dynamical theory of gases and liquids. Course covers the mathematical development of physical fluid dynamics with contemporary applications.

**PHYSICS 4365 Introduction To Plasma Physics: 3 semester hours**

Prerequisites: PHYSICS 3223 and PHYSICS 4341 A study of the nonlinear collective interactions of ions, electrons, and neutral molecules with each other and with electric and magnetic fields. Topics include plasma confinement and stability, electrical discharges and ionization, kinetic theory of plasma transport, plasma waves and radiation, and controlled fusion. Solutions of the Boltzmann, Fokker-Planck, and Vlasov equations are discussed and methods of advanced electromagnetism and statistical physics are utilized.

**PHYSICS 4370 Relativity And Cosmology: 3 semester hours**

Prerequisites: PHYSICS 3221, PHYSICS 3223 and PHYSICS 3231 An introduction to Einstein's general theory of relativity. Topics will include special relativity in the formalism of Minkowski's four dimensional space-time, Principle of Equivalence, Riemannian geometry and tensor analysis, Einstein Field Equation and cosmology.

**PHYSICS 4381 Directed Readings In Physics: 1-10 semester hours**

Prerequisite: Consent of instructor. An independent study of special topics in physics for senior undergraduates or graduate students.

**PHYSICS 5307 Advanced Scanning Electron Microscopy: 3 semester hours**

Prerequisites: Consent of instructor. This Course introduces students to advanced scanning electron microscopy techniques and their applications to solving challenging materials and biological problems. Course includes electron optics, electron-specimen interactions, image formation and interpretation, compositional analysis by energy dispersive x-ray spectroscopy, and sample preparation of both biological and non-biological systems. Laboratory experiments will provide students "hands-on" experience with SEM operations and problem-solving skills. Successful completion of the course enables students to independently operate scanning electron microscopes to perform research experiments. Two classroom hours and two hours of laboratory per week.

**PHYSICS 5308 Transmission Electron Microscopy: 3 semester hours**

Prerequisites: PHYSICS 5307 or consent of instructor. A lecture/laboratory study of transmission electron microscopy (TEM) in conventional, analytical, and phase-contrast (high resolution) applications. Course includes advanced electron optics and image formation, defect structures, specimen preparation, contrast theory, diffraction/periodicity analysis, and electron energy loss/x-ray spectroscopy. Two hours lecture and two hours laboratory per week.

**PHYSICS 5345 Nonlinear Dynamics And Stochastic Processes: 3 semester hours**

Prerequisites: PHYSICS 3221 and PHYSICS 4341 and consent of instructor. Dynamical systems; theory of oscillations; introduction to bifurcation theory and chaos in dissipative systems with applications in physics and biology; introduction to stochastic processes with applications in physics, chemistry and biology; dynamics of nonlinear systems perturbed by noise; noise-induced phase transitions; linear and nonlinear time series analysis. Three classroom hours per week.

**PHYSICS 5357 Fundamental Particles and Forces: 3 semester hours**

Prerequisites: PHYSICS 3223, PHYSICS 3231, and PHYSICS 4331, may be taken concurrently Introduction to nuclear and particle physics. Nuclear phenomenology and models; high energy particle accelerators and detectors; phenomenology of strong, electromagnetic and weak interactions; symmetry principles; quark compositions of strongly interacting baryons and mesons; gauge theories and the standard model of particle interactions; grand unification.

**PHYSICS 5402 Introduction To Mathematical Physics: 3 semester hours**

Prerequisites: Graduate standing in physics or consent of instructor A course covering mathematical techniques as applied in advanced theoretical physics including generalized vector spaces and their dual spaces, linear operators and functionals, generalized functions, spectral decomposition of operators, tensor analysis, and complex variables. Three hours of lecture per week.

**PHYSICS 5403 Principles Of Mathematical Physics: 3 semester hours**

Prerequisites: Graduate standing in physics or consent of instructor Boundary value problems; Sturm-Liouville theory and orthogonal functions; Green's function techniques; and introduction to group theory with emphasis on representations of Lie Algebras. Three hours of lecture per week.

**PHYSICS 6300 Master's Thesis: 3 semester hours**

Prerequisite: Consent of Instructor. Thesis work under the supervision of a faculty member. The course is designed for those students intending to present a thesis as part of their M.S. program. Students who do not write a thesis cannot apply PHYSICS 6300 to a degree. This course transfers to the Cooperative Ph.D. program as three research credits.



**PHYSICS 6400 Special Problems: 1-5 semester hours**

Must have faculty mentor and approval of Department Chairperson. A study of special topics in physics for graduate students.

**PHYSICS 6401 Special Topics: 1-4 semester hours**

Prerequisite: Consent of instructor. This course is designed to give the department an opportunity to test a new course.

**PHYSICS 6409 Theoretical Mechanics I: 3 semester hours**

Prerequisite: PHYSICS 3221 Classical mechanics, methods of Newton, Lagrange, and Hamilton applied to motion of particles and rigid bodies, elasticity, hydrodynamics.

**PHYSICS 6410 Seminar: 1-3 semester hours**

Prerequisite: Approval of Department Chair. Discussion of current topics.

**PHYSICS 6411 Electrodynamics I: 3 semester hours**

Prerequisite: PHYSICS 3223. A rigorous development of the fundamentals of electromagnetic fields and waves. Electrostatics, magnetostatics, Maxwell's equations, Green's functions, boundary value problems, multipoles, conservation laws.

**PHYSICS 6413 Statistical Mechanics: 3 semester hours**

Prerequisite: PHYSICS 4331, PHYSICS 4341. A study of statistical ensembles; Maxwell-Boltzmann, Fermi-Dirac and Einstein-Bose distribution laws, application to some physical systems.

**PHYSICS 6423 Electrodynamics II: 3 semester hours**

Prerequisite: PHYSICS 6411. A Continuation of PHYSICS 6411. Applications of time-dependent Maxwell's equations to such topics as plasmas, wave guides, cavities, radiation: fields of simple systems and multiples. Relativity: covariant formulation of Maxwell's equations and conservation laws, fields of uniformly moving and accelerated charges.

**PHYSICS 6461 Quantum Mechanics I: 3 semester hours**

Prerequisite: PHYSICS 4331. A study of the Schrodinger wave equation, operators and matrices, perturbation theory, collision and scattering problems.

**PHYSICS 6463 Quantum Mechanics II: 3 semester hours**

Prerequisite: PHYSICS 6461. Continuation of PHYSICS 6461. To include such topics as Pauli Spin-Operator Theory, classification of atomic states, introduction to field quantization, and Dirac Electron Theory.

**PHYSICS 6481 Physics Of Solid State: 3 semester hours**

Prerequisite: PHYSICS 6461. Crystal symmetry, point and space groups, lattice vibrations, phonons, one-electron model, Hartee-Fock approximation, elementary energy band theory, transport properties, the Boltzmann equation, introduction to superconductivity, semiconductors and magnetism.

**PHYSICS 6490 Research: 1-10 semester hours**

Prerequisite: Must have a faculty mentor and approval of the department chair. Investigations of an advanced nature leading to the preparation of a thesis or dissertation.

**PHYSICS 6495 Continuous Registration: 1-6 semester hours**

Doctoral candidates who have completed all requirements for the degree except the dissertation, and are away from the campus must continue to enroll for at least one hour of credit each registration period until the degree is completed. Failure to do so may invalidate the candidacy.

## Courses

**PHYSICS 1001 How Things Work: 3 semester hours**

Can baseball players hit home runs more easily when the weather is hot and humid? This course provides a practical introduction to understanding common life experiences by using physical intuition and basic ideas of physics. Powerful scientific principles are demonstrated through topics ranging from airplane wings to compact disk players, from lightning strikes to lasers.

**PHYSICS 1011 Basic Physics I: 4 semester hours**

Prerequisites: MATH 1030 and MATH 1035, MATH 1100 or MATH 1800 strongly recommended. A course specifically designed for students in health and life sciences covering the topics in classical mechanics such as kinematics, Newton's laws, energy, momentum and oscillations. This course will not fulfill the PHYSICS 2111 requirement for physics, chemistry, and engineering majors. Three classroom hours and two hours of laboratory per week.

**PHYSICS 1011A Basic Physics I: 3 semester hours**

Prerequisites: MATH 1030 and MATH 1035, MATH 1100 or MATH 1800 strongly recommended. A course specifically designed for students in health and life sciences, covering the topics of classical mechanics, heat and sound. Will not fulfill the PHYSICS 2111 requirement for physics, chemistry, and engineering majors. Three classroom hours per week. There is no laboratory associated with this course.

**PHYSICS 1012 Basic Physics II: 4 semester hours**

Prerequisites: PHYSICS 1011. A continuation of PHYSICS 1011. A course specifically designed for students in health and life sciences covering electricity, magnetism, light, optics and waves. This course will not fulfill the PHYSICS 2112 requirement for physics, chemistry, and engineering majors. Three classroom hours and two hours of laboratory per week.

**PHYSICS 1012A Basic Physics II: 3 semester hours**

Prerequisites: PHYSICS 1011 or PHYSICS 1011A. A continuation of PHYSICS 1011. A course specifically designed for students in health and life sciences covering the topics of electricity, magnetism, light and radiation. Will not fulfill the PHYSICS 2112 requirement for physics, chemistry, and engineering majors. Three classroom hours. There is no laboratory associated with this course.

**PHYSICS 1099 Windows On Physics: 1 semester hour**

A seminar designed to introduce physics majors to research areas in physics and physics-related fields in the Department of Physics and Astronomy. In addition to fundamental areas of physics, the areas of astrophysics, biophysics, materials science, and nanotechnology will be included. Career opportunities for students with physics degrees will be discussed and the physics curriculum will be reviewed. The course meets weekly and is required of all physics majors and minors who are transfer students.

**PHYSICS 2111 Physics: Mechanics And Heat: 5 semester hours**

Prerequisites: MATH 1900 (may be taken concurrently). An introduction to the phenomena, concepts, and laws of mechanics and heat for physics majors and students in other departments. Three classroom hours, one hour discussion, and two hours of laboratory per week.

**PHYSICS 2112 Physics: Electricity, Magnetism, And Optics: 5 semester hours**

Prerequisites: PHYSICS 2111 and MATH 2000 (MATH 2000 may be taken concurrently). A phenomenological introduction to the concepts and laws of electricity and magnetism, electromagnetic waves, optics and electrical circuits for physics majors and students in other departments. Three hours of lecture, one hour of discussion, and two hours of laboratory per week.

**PHYSICS 3200 Mathematical Methods Of Theoretical Physics: 3 semester hours**

Prerequisites: PHYSICS 2112 and MATH 2000 Mathematical techniques specifically used in the study of mechanics, electricity, magnetism, and quantum physics are developed in the context of various physical problems. Course includes the topics of vector calculus, coordinate systems, the Laplace equation and its solutions, elementary Fourier analysis, & complex variables. Applications to electrostatics, mechanics, and fluid dynamics are emphasized. Three hours of lecture per week.

**PHYSICS 3221 Mechanics: 3 semester hours**

Prerequisites: PHYSICS 3200 and MATH 2020 (MATH 2020 may be taken concurrently) Advanced course covering single and many particle dynamics, rigid-body dynamics, and oscillations. Variational principles and Hamiltonian formulations of mechanics are covered. Three hours of lecture per week.

**PHYSICS 3223 Electricity And Magnetism: 3 semester hours**

Prerequisites: PHYSICS 3200 and MATH 2020 (MATH 2020 may be taken concurrently) Advanced course covering the rigorous development, from basic laws, of Maxwell's equations for electromagnetic fields along with applications of these equations. Topics covered are electrostatics and electrodynamics including currents, magnetic fields, motion of charged particles in fields and an introduction to electromagnetic waves. Three hours of lecture per week.

**PHYSICS 3231 Introduction To Modern Physics I: 3 semester hours**

Prerequisites: PHYSICS 2111, PHYSICS 2112, and MATH 2020 (may be taken concurrently) and PHYSICS 3200 strongly recommended. Photons and the wave nature of particles, wave mechanics, Schrodinger equation, with applications to atomic physics; and radiation; the physics of solids; elementary particles; special relativity; health physics. Three hours of lecture per week.

**PHYSICS 3281 Directed Readings In Physics: 1-5 semester hours**

Prerequisite: Consent of Instructor An independent study of special topics in physics. A paper may be required on an approved topic. Topics must be substantially different. Hours arranged.

**PHYSICS 3390 Research: 1-10 semester hours**

Prerequisite: Consent of department. Independent physics research projects arranged between student and instructor. Hours arranged.

**PHYSICS 4305 Bayesian Data analysis for the Sciences: 3 semester hours**

Prerequisites: Consent of Instructor. This is a cross-disciplinary course in two parts. Part one covers Bayesian inference as applied to data analysis in general, with a special focus on the mathematics of model-selection in the physical and life sciences. Part two concentrates specifically on the Bayesian use of log-probability (i.e. information) measures to track order-disorder transitions in thermodynamics, and to track the evolution of sub-system correlations (via both digital and analog means) in a wide variety of complex systems. Expect weekly empirical observation exercises, and opportunities for asynchronous as well as synchronous collaboration.

**PHYSICS 4306 Nanoscience Practicals: 1-3 semester hours**

Studies of Nanoscience characterization, synthesis, modeling techniques designed for clients of these tools, as well as for technical users interested in a current overview. Course consists of a set of 1/3 semester modules. Check with the instructor on more specialized modules, (e.g. on materials microscopy), if interested. Each module will cover instrumentation, current applications, weaknesses, and will involve lab visits for hands-on experience, weekly web interaction and classroom hours.

**PHYSICS 4308 Transmission Electron Microscopy: 3 semester hours**

Prerequisite: Consent of instructor. Course introduces students to transmission electron microscopy techniques and their applications to solving challenging materials and biological problems. Course includes fundamental principles (electron optics), electron-specimen interactions, diffraction of electrons, image formation and interpretation, image processing and analysis, energy dispersive X-ray spectroscopy, electron energy loss spectroscopy, and sample preparation of both biological and non-biological systems. Laboratory experiments will provide students "hands-on" experience with TEM operations and problem solving skills. Successful completion of the course enables students to independently operate transmission electron microscopes to perform basic research experiments. This course is ideal for students interested in ultrastructural or nanocharacterization of biological or materials systems. Two classroom hours and two hours of laboratory per week.

**PHYSICS 4309 Scanning Probe Microscopy: 3 semester hours**

Prerequisites: Consent of instructor A lecture/laboratory study of research techniques using scanning probe microscopy. Topics include atomic force microscopy, scanning tunneling microscopy, feedback control, scanning tip fabrication, scan calibrations, air/solution/vacuum imaging, image processing and analysis, near-field optical probes, metrology, and lateral force/displacement microscopy. Applications in physics, chemistry, biology, engineering and surface science are discussed. Two hours lecture and two hours laboratory per week.

**PHYSICS 4310 Modern Electronics: 3 semester hours**

An integrated recitation/laboratory study of modern analog and digital electronics with emphasis on integrated circuits. Topics include circuit elements, operational amplifiers, logic gates, counters, ac/dc converters, noise reduction, microprocessors, embedded microcontrollers, and digital processing. Three hours of lecture/laboratory per week.

**PHYSICS 4311 Advanced Physics Laboratory I: 3 semester hours**

Prerequisite: Advanced standing with at least nine completed hours of Physics at or above the 3000 level. Physics majors are introduced to the experimental techniques used in research. A student will choose and do several special problems during the semester. Six hours laboratory per week.

**PHYSICS 4323 Modern Optics: 3 semester hours**

Prerequisite: PHYSICS 3223 A study of modern optics including diffraction theory, polarization, light propagation in solids, quantum optics, and coherence.

**PHYSICS 4331 Intro To Quantum Mechanics: 3 semester hours**

Prerequisites: PHYSICS 3200 and PHYSICS 3231 Photons and the wave nature of particles; wave mechanics, Schrodinger equation, operator and matrix formulations, and Dirac notation; applications to single particle systems, atomic physics, and spectroscopy.

**PHYSICS 4341 Thermal And Statistical Physics: 3 semester hours**

Prerequisites: MATH 2000 and PHYSICS 3231. Introduction to statistical mechanics, classical thermodynamics, and kinetic theory.

**PHYSICS 4343 Selected Topics In Physics I: 3 semester hours**

Prerequisites: PHYSICS 3221, PHYSICS 3223, PHYSICS 3231, PHYSICS 4341 Topics include special phenomena for research areas such as physics of waves, biophysics, nonlinear physics, geophysical fluid dynamics and the atmospheric sciences treated by methods of advanced mechanics, electromagnetism, statistical mechanics, thermodynamics and quantum mechanics. Three hours of lecture per week.

**PHYSICS 4347 Biophysics Of Imaging: 4 semester hours**

Prerequisites: PHYSICS 3231, BIOL 1821, and BIOL 1831 An introduction to the application of physical principles to problems in medical physics and biology, with a particular focus on the biophysics of various technologies for imaging both human patients and biological macromolecules. Topics covered will include the principles of x-ray crystallography, metabolic and optical changes in the brain, NMR and fMRI, magnetoencephalography, PET imaging, the electrophysiology of EEG and ECG, dynamics in the body and brain, and dynamics in genetics. Laboratory projects on brain imaging and data analysis are an integral part of the course. Three classroom hours and two laboratory hours per week.

**PHYSICS 4350 Computational Physics: 3 semester hours**

Prerequisite: PHYSICS 3221, PHYSICS 3223, and PHYSICS 3231. Computer Analysis In Physics; Solutions Of Eigenvalue Problems; Coupled Differential Equations; And Writing Of Fortran Programs.

**PHYSICS 4351 Elementary Solid State Physics: 3 semester hours**

Prerequisites: PHYSICS 4331 Theoretical and experimental aspects of solid state physics, including one-dimensional band theory of solids; electron emission from metals and semiconductors; electrical and thermal conductivity of solids.

**PHYSICS 4353 Physics Of Fluids: 3 semester hours**

Prerequisites: PHYSICS 3221, PHYSICS 3223, and PHYSICS 4341, or consent of instructor. Dynamical theory of gases and liquids. Course covers the mathematical development of physical fluid dynamics with contemporary applications.

**PHYSICS 4365 Introduction To Plasma Physics: 3 semester hours**

Prerequisites: PHYSICS 3223 and PHYSICS 4341 A study of the nonlinear collective interactions of ions, electrons, and neutral molecules with each other and with electric and magnetic fields. Topics include plasma confinement and stability, electrical discharges and ionization, kinetic theory of plasma transport, plasma waves and radiation, and controlled fusion. Solutions of the Boltzmann, Fokker-Planck, and Vlasov equations are discussed and methods of advanced electromagnetism and statistical physics are utilized.

**PHYSICS 4370 Relativity And Cosmology: 3 semester hours**

Prerequisites: PHYSICS 3221, PHYSICS 3223 and PHYSICS 3231 An introduction to Einstein's general theory of relativity. Topics will include special relativity in the formalism of Minkowski's four dimensional space-time, Principle of Equivalence, Riemannian geometry and tensor analysis, Einstein Field Equation and cosmology.

**PHYSICS 4381 Directed Readings In Physics: 1-10 semester hours**

Prerequisite: Consent of instructor. An independent study of special topics in physics for senior undergraduates or graduate students.

**PHYSICS 5307 Advanced Scanning Electron Microscopy: 3 semester hours**

Prerequisites: Consent of instructor. This Course introduces students to advanced scanning electron microscopy techniques and their applications to solving challenging materials and biological problems. Course includes electron optics, electron-specimen interactions, image formation and interpretation, compositional analysis by energy dispersive x-ray spectroscopy, and sample preparation of both biological and non-biological systems. Laboratory experiments will provide students "hands-on" experience with SEM operations and problem-solving skills. Successful completion of the course enables students to independently operate scanning electron microscopes to perform research experiments. Two classroom hours and two hours of laboratory per week.

**PHYSICS 5308 Transmission Electron Microscopy: 3 semester hours**

Prerequisites: PHYSICS 5307 or consent of instructor. A lecture/laboratory study of transmission electron microscopy (TEM) in conventional, analytical, and phase-contrast (high resolution) applications. Course includes advanced electron optics and image formation, defect structures, specimen preparation, contrast theory, diffraction/periodicity analysis, and electron energy loss/x-ray spectroscopy. Two hours lecture and two hours laboratory per week.

**PHYSICS 5345 Nonlinear Dynamics And Stochastic Processes: 3 semester hours**

Prerequisites: PHYSICS 3221 and PHYSICS 4341 and consent of instructor. Dynamical systems; theory of oscillations; introduction to bifurcation theory and chaos in dissipative systems with applications in physics and biology; introduction to stochastic processes with applications in physics, chemistry and biology; dynamics of nonlinear systems perturbed by noise; noise-induced phase transitions; linear and nonlinear time series analysis. Three classroom hours per week.

**PHYSICS 5357 Fundamental Particles and Forces: 3 semester hours**

Prerequisites: PHYSICS 3223, PHYSICS 3231, and PHYSICS 4331, may be taken concurrently Introduction to nuclear and particle physics. Nuclear phenomenology and models; high energy particle accelerators and detectors; phenomenology of strong, electromagnetic and weak interactions; symmetry principles; quark compositions of strongly interacting baryons and mesons; gauge theories and the standard model of particle interactions; grand unification.

**PHYSICS 5402 Introduction To Mathematical Physics: 3 semester hours**

Prerequisites: Graduate standing in physics or consent of instructor A course covering mathematical techniques as applied in advanced theoretical physics including generalized vector spaces and their dual spaces, linear operators and functionals, generalized functions, spectral decomposition of operators, tensor analysis, and complex variables. Three hours of lecture per week.

**PHYSICS 5403 Principles Of Mathematical Physics: 3 semester hours**

Prerequisites: Graduate standing in physics or consent of instructor Boundary value problems; Sturm-Liouville theory and orthogonal functions; Green's function techniques; and introduction to group theory with emphasis on representations of Lie Algebras. Three hours of lecture per week.

**PHYSICS 6300 Master's Thesis: 3 semester hours**

Prerequisite: Consent of Instructor. Thesis work under the supervision of a faculty member. The course is designed for those students intending to present a thesis as part of their M.S. program. Students who do not write a thesis cannot apply PHYSICS 6300 to a degree. This course transfers to the Cooperative Ph.D. program as three research credits.

**PHYSICS 6400 Special Problems: 1-5 semester hours**

Must have faculty mentor and approval of Department Chairperson. A study of special topics in physics for graduate students.

**PHYSICS 6401 Special Topics: 1-4 semester hours**

Prerequisite: Consent of instructor. This course is designed to give the department an opportunity to test a new course.

**PHYSICS 6409 Theoretical Mechanics I: 3 semester hours**

Prerequisite: PHYSICS 3221 Classical mechanics, methods of Newton, Lagrange, and Hamilton applied to motion of particles and rigid bodies, elasticity, hydrodynamics.

**PHYSICS 6410 Seminar: 1-3 semester hours**

Prerequisite: Approval of Department Chair. Discussion of current topics.



**PHYSICS 6411 Electrodynamics I: 3 semester hours**

Prerequisite: PHYSICS 3223. A rigorous development of the fundamentals of electromagnetic fields and waves. Electrostatics, magnetostatics, Maxwell's equations, Green's functions, boundary value problems, multipoles, conservation laws.

**PHYSICS 6413 Statistical Mechanics: 3 semester hours**

Prerequisite: PHYSICS 4331, PHYSICS 4341. A study of statistical ensembles; Maxwell-Boltzmann, Fermi-Dirac and Einstein-Bose distribution laws, application to some physical systems.

**PHYSICS 6423 Electrodynamics II: 3 semester hours**

Prerequisite: PHYSICS 6411. A Continuation of PHYSICS 6411. Applications of time-dependent Maxwell's equations to such topics as plasmas, wave guides, cavities, radiation: fields of simple systems and multiples. Relativity: covariant formulation of Maxwell's equations and conservation laws, fields of uniformly moving and accelerated charges.

**PHYSICS 6461 Quantum Mechanics I: 3 semester hours**

Prerequisite: PHYSICS 4331. A study of the Schrodinger wave equation, operators and matrices, perturbation theory, collision and scattering problems.

**PHYSICS 6463 Quantum Mechanics II: 3 semester hours**

Prerequisite: PHYSICS 6461. Continuation of PHYSICS 6461. To include such topics as Pauli Spin-Operator Theory, classification of atomic states, introduction to field quantization, and Dirac Electron Theory.

**PHYSICS 6481 Physics Of Solid State: 3 semester hours**

Prerequisite: PHYSICS 6461. Crystal symmetry, point and space groups, lattice vibrations, phonons, one-electron model, Hartee-Fock approximation, elementary energy band theory, transport properties, the Boltzmann equation, introduction to superconductivity, semiconductors and magnetism.

**PHYSICS 6490 Research: 1-10 semester hours**

Prerequisite: Must have a faculty mentor and approval of the department chair. Investigations of an advanced nature leading to the preparation of a thesis or dissertation.

**PHYSICS 6495 Continuous Registration: 1-6 semester hours**

Doctoral candidates who have completed all requirements for the degree except the dissertation, and are away from the campus must continue to enroll for at least one hour of credit each registration period until the degree is completed. Failure to do so may invalidate the candidacy.

## Political Science

### Courses

**POL SCI 1100 Introduction To American Politics: 3 semester hours**

Introduction to basic concepts of government and politics with special reference to the United States, but including comparative material from other systems. Course fulfills the state requirement.

**POL SCI 1200 Foundations Of Law: An Introduction To Legal Studies: 3 semester hours**

Same as CRIMIN 1200. As a broad liberal-arts approach to the study of law, this course is designed to familiarize students with legal ideas, legal reasoning, and legal processes. It also provides comparative and historical perspectives on law that will help explain legal diversity and legal change. Finally, it offers opportunities to explore some of the persistent issues in law and legal theory: for example, issues about the sources of law, the responsibilities of the legal profession, or the relative merits of the adversary system.

**POL SCI 1450 Introduction To Labor Studies: 3 semester hours**

This course covers many topics important to the role of unions in the American political system and American society from a labor perspective. Topics include the role of workers in current and future times, unions' institutional structure, collective bargaining strategies and obstacles for union organizing, recent union campaigns, labor's political role, and the relationship between labor and the media.

**POL SCI 1500 Introduction To Comparative Politics: 3 semester hours**

This course introduces students to western and non-western systems. It examines similarities and differences in the basic political ideologies, structures, economies, social institutions and governmental processes of developed and developing countries. It also provides frameworks for understanding the cultures of the world that are the basis for formal economic and political institutions. In addition, the course examines the role of non-state institutions, including trans-national ones, in shaping national policies. It uses case studies from Africa, Asia, Latin America, as well as Europe, to enhance student understanding of comparative politics. (This course fulfills the cultural diversity requirement.)

**POL SCI 1550 Women And Politics In The Developing World: 3 semester hours**

Women play a central role in the transformation of political, economic, cultural and gender relations in developing nations. This course examines the political role of women in these transformations. In particular, the course examines: 1) ways that modernity, universal education, the market economy and globalization have widened the scope of women's public activities; 2) the emergence of social movements driven by the transformation of economic and political roles brought about by the inclusion of women in the political arena; 3) the re-interpretation of religious doctrines, especially those that emphasize women's "return" to the private sphere and the legitimate denial of women's political rights. Fulfills the Cultural Diversity requirement.

**POL SCI 1600 Contemporary Political Ideologies: 3 semester hours**

An introduction to the major political ideologies of the world today. Emphasis is placed on democracy, feminism, Marxism, and nationalism.

**POL SCI 1800 World Politics: 3 semester hours**

An introduction to the field of international relations, covering such topics as nationalism, power, foreign policymaking, diplomacy, war, arms control and disarmament, interdependence, the regulation of conflict, and other aspects of politics among nations.

**POL SCI 2000 Political Analysis: 3 semester hours**

An introduction to political analysis, emphasizing both the logic of inquiry and practical methods. Students learn about the construction and evaluation of theories that relate to real-world politics. They also have an opportunity for hands-on experience with qualitative and quantitative methods including graphics, descriptive statistics, cross-tabular and correlational analysis, hypothesis testing, and computer applications.

**POL SCI 2260 Law, Politics and Society: 3 semester hours**

Prerequisites: POL SCI 1100 or POL SCI 1200 or consent of instructor. This course examines the ways in which law in America connects with politics and society. The course will cover the litigation process, access to the courts, how and why individuals and groups bring litigation to pursue political and policy goals, and how lawyers, judges and other political actors use law to solve policy problems. Attention will be placed on current legal policy issues facing American society.



**POL SCI 2280 Judicial Politics And Policy: 3 semester hours**

Prerequisites: POL SCI 1100 or POL SCI 1200 or consent of instructor

This course is an examination of the American state and federal legal systems. Topics examined in this course include an analysis of the structure, organization and foundation of courts. Emphasis will be placed on the role of juries, judges, attorneys, litigants, and interest groups in the judicial system. The objective of the course is to evaluate courts as political institutions and analyze the policy-making role of judges.

**POL SCI 2290 Gender And The Law: 3 semester hours**

Same as GS 2290. This course examines the ways in which laws and interpretations of the laws affect gender equality in the United States. Emphasizing how traditional roles impact both women and men historically and currently, the course highlights major pieces of legislation and court rulings related to employment, economics, education, sexual harassment, pornography, rape, reproductive rights, and domestic relations. The course stresses the impact of federal and state institutions and non-governmental influences on equality. It also addresses gender representation in the legal profession and its effect on judicial decisions. (This course satisfies State requirements in American History and Government).

**POL SCI 2300 State Politics: 3 semester hours**

Prerequisite: POL SCI 1100 Or consent of instructor. An examination of contemporary state politics in the U.S. Covers social, economic and political determinants of policies; federal-state-local relations, elections, interest groups and participation; executive legislative and judicial institutions and processes, policies and their impact. Course fulfills the state requirement.

**POL SCI 2320 African Americans And The Political System: 3 semester hours**

Prerequisites: POL SCI 1100 or consent of instructor. Examination of the status of African Americans in the context of the American political system. The course will focus on a number of issues, including: attitudes of various publics toward racial concerns; nature of problems in specific policy areas (e.g., unemployment, school desegregation, housing, poverty); representation of African Americans in governmental institutions and the private sector; and the role of African American leadership and civil rights groups in the political process. Course fulfills the state requirement.

**POL SCI 2350 Introduction To Urban Politics: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Examination of structure and process of politics in the urban community, with emphasis on their relationships to community power structures. Course fulfills the state requirement.

**POL SCI 2380 The Politics of Gender in the United States: 3 semester hours**

Same As GS 2380. Prerequisites: POL SCI 1100 or consent of instructor. This course examines the role of gender in political institutions, practices and policy in the United States, past for political equality, the relationship between gender and political participation, vote choice, and public opinion, and how legislative, executive, and judicial offices are gendered at the national, state, and local levels. (This course satisfies State requirements in American History and Government.).

**POL SCI 2400 Public Administration: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Survey of Public Administration, with reference to organization, financial administration, personnel management, judicial control of the administrative process. Course fulfills state requirement.

**POL SCI 2420 Introduction To Public Policy: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor Study of differing approaches to understanding the public policy process. Course surveys the application of social science to public issues and problems. Course fulfills the state requirement.

**POL SCI 2500 Comparing Different Worlds: 3 semester hours**

This course focuses on the role of political institutions, economic structures and social groups in explaining differences in forms of government and levels of socio-economic development. It explores in detail one or more of these themes in cases drawn from developing and developed nations.

**POL SCI 2510 The Politics of European Union: 3 semester hours**

Prerequisite: POL SCI 1500 or consent of instructor. The European Union has become the driving force in European economic and social development. This course assesses the changing nature of national identity and national sovereignty in Europe. It compares and contrasts key public policies, (single market, welfare, migration, gender mainstreaming, "democratic deficits"), along with core EU actors and institutions, and includes participation in the annual Midwest Model EU.

**POL SCI 2520 Middle Eastern Politics: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 1500 Or consent of instructor. Survey of political movements, governments, and international conflicts in the Middle East. Islam, nationalism, ideologies and economic systems will be studied. The effect of oil and the military will also be considered. Course fulfills the non-Euro-American requirement.

**POL SCI 2530 Political Systems Of South America: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. An introduction to the study of the political systems of South America. Examination of the cultural context that has shaped the political, economic, and social development of states in the region. This course satisfies the Cultural Diversity requirement.

**POL SCI 2540 Political Systems Of Mexico, Central America And The Caribbean: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. An introduction to the study of the political systems of Mexico, Central America, and the Caribbean. Examination of the cultural context that has shaped the political, economic, and social development of these countries. This course satisfies the Cultural Diversity requirement.

**POL SCI 2550 East Asian Politics: 3 semester hours**

An introduction to the study of the Chinese and Japanese political systems. Examination of the cultural context that has shaped the path of political development for both states. This course satisfies the Cultural Diversity requirement.

**POL SCI 2580 African Politics: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An introduction to the nature of societies, governments, and international relations in Africa. The course deals with forms of governance on the continent, regional groupings of states, and persistent conflicts within and among states. Problems of economic underdevelopment, food supplies, health and population trends, and cultural change are analyzed, along with the role of outside major power intervention. Fulfills the Cultural Diversity requirement.

**POL SCI 2610 Ancient And Medieval Political Thought: 3 semester hours**

Study of political thought from Plato to Machiavelli.

**POL SCI 2620 Modern Political Thought: 3 semester hours**

Study of political thought from Machiavelli to the present.

**POL SCI 2650 American Political Thought: 3 semester hours**

History of political thought in the United States from Colonial times to the present.

**POL SCI 2820 United States Foreign Policy: 3 semester hours**

Prerequisite: POL SCI 1100 or POL SCI 1500, or consent of Instructor. Examination of the factors influencing the formation and the execution of American foreign policy, with a focus on specific contemporary foreign policy issues.

**POL SCI 2900 Studies In Political Science: 3 semester hours**

Selected topics in political science.

**POL SCI 3200 Constitutional Law: 3 semester hours**

Prerequisites: POL SCI 1100, or POL SCI 1200, or consent of the instructor. Study of leading American constitutional principles regarding legislative, executive, and judicial power, federalism, the commerce clause, and economic due process as they have evolved through the important decisions of the U.S. Supreme Court. Course fulfills the state requirement.

**POL SCI 3210 Civil Liberties: 3 semester hours**

Prerequisite: POL SCI 1100, or POL SCI 1200, or POL SCI 3200, or consent of instructor. Civil rights in the American constitutional context, emphasizing freedom of religion, freedom of expression, minority discrimination, and rights of defendants. Course fulfills the state requirement.

**POL SCI 3220 Labor Law: 3 semester hours**

Prerequisites: Consent of instructor In this course, participants will examine the role of government in the regulation of labor-management relations in the United States. While the focus of the course will be on federal laws regulating private sector labor relations, parallel issues addressed in the Railway Labor Act and state public sector labor relations law will also be covered. Specific topics include the legal framework for the organization of workers, definition of prohibited or unfair labor practices of employers and unions, legal regulation of the collective bargaining process, regulation of the use of economic weapons in labor disputes, enforcement of collective bargaining agreements and the regulation of internal trade union activities.

**POL SCI 3260 The Supreme Court: 3 semester hours**

Prerequisites: POL SCI 1100, or POL SCI 1200 or consent of the instructor An examination of the role, function and assertion of power by the U.S. Supreme Court in our constitutional democracy. Topics include an historical overview of the Supreme court, the process of selecting Supreme Court Justices, life in the Court, Supreme Court decision making, Supreme Court policymaking, implementation and impact of Court decisions and the role of the Supreme Court as a national policymaker. This course fulfills the state requirement.

**POL SCI 3300 The American Presidency: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Study of constitutional, political, legislative, and administrative roles played by the American chief executive in the development of public policy. Course fulfills state requirement.

**POL SCI 3330 Introduction To Political Behavior: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An introduction to political behavior employing perspectives from both political psychology and political sociology. Subjects include political socialization, the character of public opinion, citizen participation, group dynamics, the social determination of reality, and the underlying bases of leadership and authority. Course fulfills the state requirement.

**POL SCI 3331 Congressional Politics: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An examination of the Congress of the United States, its history and evolution, its contemporary politics, and its role in the national policy-making process. Topics include candidate recruitment, campaigns and elections, representation, committees, legislative leadership, roles and norms, voting alignments, lobbyists and interest groups, oversight of administration, and House-Senate comparisons, the role of Congress in foreign policy, economic policy, social-welfare policy will be examined.

**POL SCI 3340 Politics And The Media: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An analysis of the role the media play in shaping American political life. The first part of the course examines the organizational structures, the economic and psychic incentives, and the social and professional norms that define how television and newspapers report news about public affairs. The second part then considers the nature of a mass-communications society by looking at how reality is defined, the susceptibility of mass publics to persuasion and propaganda, the peculiar form of media election campaigns, and the manner in which the media link changes the basic character of a citizenry.

**POL SCI 3350 Political Parties And Elections: 3 semester hours**

Prerequisite: POL SCI 1100 Or Consent Of Instructor. Development, Organization, Functions, Activities Of Major And Minor Political Parties, Pressure Groups, Election Administration, Especially In The United States. Course Fulfills The State Requirement.

**POL SCI 3390 Studies In American Politics: 3 semester hours**

Prerequisite: POL SCI 1100 Or Consent Of Instructor. Selected Topics In American Politics. May Be Repeated.

**POL SCI 3420 Public and NonProfit Personnel Management: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 2400 or consent of instructor. A study of personnel practices in the public and nonprofit sectors, including recruitment, job development, labor relations, and administration of equal employment/ affirmative action Programs.

**POL SCI 3430 Union Leadership And Administration: 3 semester hours**

Prerequisites: Consent of instructor This course will focus on the roles and challenges of union leadership in a changing environment. Topics will include the union leader's roles as representative, organizer and educator as well as administrative responsibilities within the union and the relationship with enterprise management in both adversarial and participatory situations. Options for leadership style and organizational models will be discussed and explored in both theory and practice. Leaders will develop their skills of motivation, speaking strategic planning and managing complex campaigns and diverse organizations.

**POL SCI 3440 Public and NonProfit Budgeting: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor Budgeting is the study of "who gets what" and who pays for it. This course examines the administration and politics of federal, state, and local government budgets. Students gain experience in interpreting budget documents and making budget choices, using electronic and other resources.

**POL SCI 3450 Urban Administration: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Study of administrative machinery and practices of metropolitan government, how metropolitan areas organize themselves to provide services, how urban policies are made and implemented, how budgeting and personnel recruitment processes operate, and how these relate to urban policies. Course fulfills state requirement.

**POL SCI 3460 The Politics Of Poverty And Welfare: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An examination of the structure of income inequality in the U.S. and public policies designed to redistribute wealth and to treat poverty. The history of welfare programs, the growth of the welfare state, and attempts to cut social spending are closely examined.

**POL SCI 3470 Collective Bargaining: 3 semester hours**

This course involves a study of collective bargaining processes including contract negotiations, contract administration, and methods for the resolution of bargaining disputes. Both theoretical and applied issues in collective bargaining will be addressed. Specific topics include the economic determination of bargaining power, legal constraints on the bargaining process, negotiation strategies and techniques, and the use of mediation and arbitration in the resolution of bargaining disputes.

**POL SCI 3480 Environmental Politics: 3 semester hours**

Prerequisites: POL SCI 1100 or consent of instructor This course examines the process of environmental policymaking and key environmental issues. Topics include national and international policies toward air and water pollution, energy use, solid and toxic waste disposal, global warming, overpopulation, and wilderness and wildlife conservation.

**POL SCI 3570 Gender, Ethnicity and Public Policy: 3 semester hours**

Prerequisite: POL SCI 1100, or POL SCI 1500, or consent of instructor. Raises the question as to whether "more women in politics," stemming from diverse economic, racial, ethnic backgrounds and age groups, will necessarily result in better policies for women and men. Compares gendered and racialized impacts of a wide array of public policies (in the areas of education, employment health care, welfare, and reproductive technologies) across a broad sample of advanced industrial societies. Analyzes the "empowerment" potential of new equality policies being generated at the international and supranational levels (e.g., in the UN and the European Union).

**POL SCI 3580 African Diasporas: Identity Politics And Transnational Communities: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. This course focuses on the role of Africa's regional and global diaspora(s) in the construction of post-modern identities, democratization and foreign policymaking in diverse countries.

**POL SCI 3590 Women and Leadership World-Wide: Breaking the Glass Ceiling: 3 semester hours**

Same as GS 3590. Prerequisites: POL SCI 1500 or consent of instructor. Compares women's day-to-day leadership and participation patterns across a wide variety of political-economic contexts, emphasizing their performance as elective and executive office holders. It examines the experiences of individual female leaders, the effect of country-specific nomination and recruitment strategies, party dynamics, and the larger political opportunity structure hindering or promoting the balanced participation of women and men in national leadership. Understanding how gender (the socially constructed meanings related to biological sex) operates within these specific contexts is a major concern.

**POL SCI 3595 Studies In Comparative Politics: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. Selected topics in comparative politics. May be repeated.

**POL SCI 3690 The Marxist Heritage: 3 semester hours**

Same as PHIL 3369. An interdisciplinary study of Marx and leading Marxists, designed to evaluate their influence on recent political, economic, and social thought and institutions.

**POL SCI 3700 NonProfit Organizations and Public Policy: 3 semester hours**

Prerequisites: POL SCI 1100; Recommended: POL SCI 2420. This course explores the roles of nonprofit organizations in public policy issues through citizen advocacy and political participation. The course begins with an overview of the scope of the nonprofit sector and then examines its political and legal foundations in the U.S. Theories about civic engagement and the rights of association are considered. Students will gain practical knowledge about direct and grassroots lobbying by nonprofit organizations. Discussion and analysis of actual advocacy campaigns carried out through nonprofit effort will be included. The course also investigates the formation of nonprofit political action committees (PACs) and other so-called 527 organizations, as well as ethical abuses of the nonprofit form for political purposes.

**POL SCI 3710 NonProfits, Civil Society and Volunteerism: 3 semester hours**

Prerequisites: POL SCI 1100 and junior standing. This course introduces basic concepts about the role of voluntary action in democratic society, especially in the context of organizations in the nonprofit sector. Theories of civil society and social capital are explored. Selected approaches to leadership are considered, in addition to the variety of motivations for giving time and resources to the pursuit of social and political change. Students will gain practical skill development in the recruitment, training and utilization of volunteers. Through study of recent case examples, students will develop an appreciation for the characteristics of effective leadership and strategic use of volunteers. In addition, the course includes an overview of new technologies that are being used by voluntary organizations to enlist participation and strengthen commitment of supporters.

**POL SCI 3830 International Political Economy: 3 semester hours**

Prerequisite: POL SCI 1100 or POL SCI 1500, or consent of instructor. This course provides an introduction to international political economy. In particular, it will focus on the politics of international trade, finance, and investment. It will analyze the relationships between developed and developing countries and it will assess the relative usefulness of alternative frameworks for studying international political economy.

**POL SCI 3850 International Organizations And Global Problem-Solving: 3 semester hours**

Prerequisites: POL SCI 1100, POL SCI 1200, or consent of the instructor. Introduction to the study of international organization. The course focuses on relationships between nation-states and "nonstate" actors (e.g., global intergovernmental organizations such as multinational corporations) in world politics and on the role of international institutions in such problem areas as economic development, management of resources, and control of violence across national boundaries.

**POL SCI 3860 Studies In War And Peace: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 1500, or consent of instructor. Exploration, development, and testing of theories about the causes and consequences of war, peace, and conflict among nations. A broad range of literature on war and peace will be reviewed, and applied to crisis situations in the international system.

**POL SCI 3890 Studies In International Relations: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 1500, or consent of instructor. Selected topics in international relations. May be repeated.

**POL SCI 3900 Special Readings: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports, and conferences. May be repeated.



**POL SCI 3940 Public Affairs Internship: 1-6 semester hours**

Prerequisite: Junior standing and consent of instructor. Independent study involving work with an appropriate public or private agency. A maximum of six credit hours may be earned.

**POL SCI 3950 Senior Seminar In Political Science: 3 semester hours**

Prerequisite: POL SCI 2000, senior standing and consent of instructor. Required of all political science majors in their last year of coursework as an integrative, capstone experience. Emphasis is on student-faculty interaction in a seminar format designed to engage upper-level students in a critical examination of a broad theme in political science, leading to the production of a major research paper. Topics vary. May be repeated. This course is not available for graduate student credit.

**POL SCI 4040 Survey Research Practicum in Political Science: 3 semester hours**

Prerequisite: Junior standing and consent of the instructor. The execution of a sample survey, including establishing study objectives, sampling, questionnaire construction, interviewing, coding, data analysis, and presentation of results.

**POL SCI 4060 Theory Of Decisions And Games: 3 semester hours**

Prerequisites: Six hours of Philosophy and junior standing, or Political Sci 6401 (or the equivalent, or consent of the instructor. A study of rational decision-making, including games against nature, zero-sum games, and social choices. Topics will include the following: expected utility maximization, the Prisoner's Dilemma, Nash equilibria, and Arrow's theorem on the impossibility of a social welfare function. Parts of the course are technical in nature; a prior course in mathematics (e.g., finite mathematics, calculus, statistics or an economics course with a mathematical component), symbolic logic, or some other course with comparable mathematical content. (Same as Philosophy 4465).

**POL SCI 4090 American Government For The Secondary Classroom: 3 semester hours**

Same as: SEC ED 4090 Prerequisites: Admission to the Teacher Education Program. TCH ED 3310 or the consent of the instructor. Adapts the themes and subject matter of American Government to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting methods of inquiry for use in an interactive classroom. Can be counted towards the Political Science major requirement, but not the American Politics subgroup. Counts towards Social Studies certification. Not available for graduate credit.

**POL SCI 4460 Urban Planning And Politics: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 2400, or consent of instructor. Examination of the political processes of urban areas, as they relate to the planning of services and facilities. Course fulfills state requirement.

**POL SCI 4510 Comparative Public Policy And Administration: 3 semester hours**

Prerequisite: POL SCI 1500 or consent of instructor. A comparative study of the characteristics of public administrators, their institutions and environments in western democratic, developing nations and communist political systems.

**POL SCI 4520 Mega-Cities and Diasporas: Understanding Global Migration: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. This course examines the causes, dynamics and effects of mega-city development and migrating diasporas in a variety of national settings. Case studies include cities based in Europe, South America, china, India, Turkey, and parts of Africa, fostering global awareness, as well as an understanding of the "interconnectedness" of politics, economics and climate change across the planet.

**POL SCI 4850 International Law: 3 semester hours**

PREREQUISITE: POL SCI 1100, POL SCI 1500, or consent of instructor. Study of the international legal system, including the content and operation of the laws of war and peace, how law is created and enforced with regard to the oceans and other parts of the globe, and the relationship between international law and international politics.

**POL SCI 4900 Topics In Political Science: 3 semester hours**

Prerequisites: POL SCI 1100 or consent of instructor Selected topics in Political Science.

**POL SCI 6300 Leadership and Management in NonProfit Organizations: 3 semester hours**

Same as P P ADM 6300 and SOC WK 6300. Prerequisites: Graduate standing required. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

**POL SCI 6401 Introduction To Policy Research: 3 semester hours**

Procedures for testing explanations, including research design, principles of measurement, probability sampling, methods of data collection, and techniques for analyzing data.

**POL SCI 6402 Intermediate Techniques In Policy Research: 3 semester hours**

Prerequisite: Graduate standing and POL SCI 6401. elementary distribution theory, statistical inference, and introduction to multiple regression. Emphasis on practical applications.

**POL SCI 6403 Advanced Techniques In Policy Research: 3 semester hours**

Prerequisite: Graduate standing and POL SCI 6402. Selected topics in policy research emphasizing forecasting, modeling and estimation.

**POL SCI 6404 Multi-Method Research Design: 3 semester hours**

Prerequisite: POL SCI 6403 or consent of instructor. Develops policy research skills that combine qualitative and quantitative social science tools and applies an appropriate mix of these tools to specific policy problems. Topics include alternative approaches to causal analysis, levels of analysis, triangulation from a variety of qualitative and quantitative research techniques, building contextual effects into multiple research projects, techniques for assessing alternative program theories and clarifying implicit assumptions, and meta-analysis of secondary data sources.

**POL SCI 6405 Directed Readings In Research Methods: 1-10 semester hours**

Independent study through readings, reports, research projects, and conferences.



**POL SCI 6410 Introduction To Policy Analysis: 3 semester hours**

Same as P P ADM 6000. Systematic development of a critical/analytic base for dealing with public policy.

**POL SCI 6415 Directed Readings And Research In Public Policy: 1-10 semester hours**

Same as P P ADM 6150. Prerequisite: Consent of instructor. Independent study through readings, reports, research projects, and conferences. May be repeated for credit, provided the subject matter is different.

**POL SCI 6418 Social & Economic Development Policy: 3 semester hours**

Same as SOC WK 6250. Prerequisites: SOC WK 5200 or equivalent or consent of instructor and graduate standing. Examines major trends and alternatives in social and economic development policy and practice in state, national, and international perspectives. Students will develop skills in policy analysis and development.

**POL SCI 6420 Proseminar In Public Law: 3 semester hours**

Study of judicial systems and processes (judges, courts, litigants, and juries) and evaluation of legal policies (Compliance, impact and deterrence).

**POL SCI 6421 Seminar In Public Law: 3 semester hours**

Research problems and designs, models and approaches to the study of public law. May be repeated for credit when the subject matter is different.

**POL SCI 6422 Law, Courts And Public Policy: 3 semester hours**

Same as CRIMIN 6422. Prerequisites: Graduate Standing. An analysis of the role of courts as policymaking institutions and the law as policy. We will explore the role of judges as policymakers, consider the attributes of courts, (both trial and appellate) that make them appropriate yet limited targets for advocates of reform, and the implementation and impact of court decisions. We will consider recent examples of judicial involvement in state and national policymaking. In addition, we will examine the role of lawyers and interest groups in selecting litigation rather than alternative political processes for policy change.

**POL SCI 6425 Directed Readings And Research In Public Law: 1-10 semester hours**

Independent study through readings, reports, research projects, and conferences.

**POL SCI 6430 Proseminar In American Politics: 3 semester hours**

Study of individual and group political behavior including socialization, participation, consensus formation, representation, legislative and judicial behavior.

**POL SCI 6431 Seminar In American Politics: 3 semester hours**

Research problems and design in American political process and behavior. May be repeated for credit when the subject matter is different.

**POL SCI 6435 Directed Readings And Research In American Politics: 1-10 semester hours**

Independent study through readings, reports, research projects, and conferences.

**POL SCI 6440 Proseminar In Public Policy Administration: 3 semester hours**

Examination of major approaches to analyzing public policies and their administration. Emphasis is on the effects of administrative organization and procedures on policy decisions and their impacts. Specific topics may include administrative accountability, inter-governmental relations, public-private interaction, implementation of processes, bureaucratic expertise, the legal environment of public service and merit issues.

**POL SCI 6442 The Policy Process: 3 semester hours**

Prerequisite: Graduate Standing. The course will require a major research project using federal documents and other primary sources of information about the U.S. policy process. Topics will include the sources of public policy; the policy agenda; policy design, legitimation, and implementation.

**POL SCI 6443 Health Care Policy: 3 semester hours**

Same as P P ADM 6430, GERON 6443, and SOC WK 6443. Prerequisites: Graduate Standing or consent of instructor. Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

**POL SCI 6444 Seminar In Public Policy And Aging: 3 semester hours**

Same as GERON 6444 and P P ADM 6444. Prerequisites: Consent of instructor. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include: housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

**POL SCI 6445 Directed Readings And Research In Public Administration: 1-10 semester hours**

Independent study through readings, reports, research projects, and conferences.

**POL SCI 6446 Selected Topics In Health Care Policy: 3 semester hours**

Same as P P ADM 6460. Prerequisite: Consent of Instructor. The study of specialized issues and methods relating to health care policy. May be repeated for credit, provided the subject matter is different.

**POL SCI 6448 Political Economy And Public Policy: 3 semester hours**

Prerequisite: Graduate standing. This course examines political economy in its contemporary manifestations as public choice and as the study of the ways in which institutional power shapes economic policies and performance. The course explores the origins and major concepts of political economy, the institutions of economic policymaking and economic policies in the U. S. It emphasizes the consequences of budget constraints inflation, unemployment and sectoral decline on the design and administration of public programs at all levels of government.

**POL SCI 6449 Human Resources In The Public Sector: 3 semester hours**

Same as SOC WK 6449 and P P ADM 6490. Prerequisites: P P ADM 6600 or consent of Instructor. Presents an overview of personnel and labor relations in the public sector. Particular emphasis placed on issues which are unique to the public sector such as the merit system, the questions of representative bureaucracy and the constraints of personnel in the nonprofit sector. The topics include: personnel reforms in the federal sector, equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation and labor relations including grievance arbitration and collective bargaining.

**POL SCI 6450 Proseminar In Comparative Politics: 3 semester hours**

Classification and typology of political systems; structural-functional analysis; political culture, ideology, affiliation and participation; decision-making processes; political roles; organization of authority.

**POL SCI 6451 Seminar In Comparative Politics: 3 semester hours**

Research problems and design in comparative politics. May be repeated for credit when the subject matter is different.

***POL SCI 6452 Public Policy Of Conservation And Sustainable Development: 3 semester hours***

Same as BIOL 6250. Prerequisites: Graduate standing in Political Science or Biology and consent of instructor. Prior course in ecology is recommended. This course will introduce the student to concepts and techniques for formulating, implementing, and analyzing public policy with an emphasis on environmental concerns, conservation, and sustainable development. The course will be team taught by a political scientist and a biologist. Course materials will include case studies that demonstrate the special problems of environmental policymaking in developing and developed economies.

***POL SCI 6455 Directed Readings And Research In Comparative Politics: 1-10 semester hours***

Independent study through readings, reports, research projects, and conferences.

***POL SCI 6465 Directed Readings And Research In Political Theory: 1-10 semester hours***

Independent study through readings, reports, research projects, and conferences.

***POL SCI 6470 Proseminar In Urban Politics: 3 semester hours***

Examination of the relationship between the social, economic and political systems of urban areas. Urban political structure, patterns of influence, political participation and communication and political change. Special attention to problems of access to and control of urban political systems.

***POL SCI 6471 Seminar In Urban Politics: 3 semester hours***

Research problems and design in urban and regional politics. May be repeated for credit when the subject matter is different.

***POL SCI 6475 Directed Readings And Research In Urban Politics: 1-10 semester hours***

Independent study through readings, reports and conferences.

***POL SCI 6480 Proseminar In International Relations: 3 semester hours***

Examination of various approaches to the study of international politics and foreign policy, focusing on studies of conflict, decision-making, international political economy, and related topics. Included are realist, idealist, and Marxist perspectives.

***POL SCI 6481 Seminar In International Relations: 3 semester hours***

Research problems and design in international politics. May be repeated for credit when the subject matter is different.

***POL SCI 6482 International Political Economy: 3 semester hours***

Prerequisite: Graduate standing. This course will examine the theoretical and policy issues of international political economy. In particular, it will focus on the politics of international trade, finance and investment. It will also analyze the themes of interdependence, hegemony, and dependency, as well as consider relations between developed and developing countries. Finally, the relative usefulness of liberal, Realist and Marxist approaches to the study of international political economy will be weighed.

***POL SCI 6485 Directed Readings And Research In International Relations: 1-10 semester hours***

Independent study through readings, reports, research projects, and conferences.

***POL SCI 6488 Studies In International Relations: 1-6 semester hours***

PREREQUISITES: Graduate standing or permission of instructor. Selected topics in international studies. May be repeated for credit provided the topic of the course is different each time.

***POL SCI 6490 Strategic & Program Planning For Nonprofit Organizations: 3 semester hours***

Same as P P ADM 6550 and SOC WK 6491. Prerequisites: Graduate standing or consent of instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, a vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

***POL SCI 6494 Thesis Research: 1-10 semester hours******POL SCI 6495 Internship: 1-6 semester hours***

Independent study involving work with an appropriate public or private agency.

***POL SCI 6499 Directed Dissertation Proposal Research: 3 semester hours***

Prerequisites: Consent of Instructor. Supervised study through readings and research leading to the preparation of a dissertation proposal plan. Open to doctoral students who have completed at least 42 hours of course work. The proposal plan will indicate the following: statement of research question, importance of the problem, literature review and research design.

***POL SCI 7499 Dissertation Research: 1-10 semester hours***

## Courses

***POL SCI 1100 Introduction To American Politics: 3 semester hours***

Introduction to basic concepts of government and politics with special reference to the United States, but including comparative material from other systems. Course fulfills the state requirement.

***POL SCI 1200 Foundations Of Law: An Introduction To Legal Studies: 3 semester hours***

Same as CRIMIN 1200. As a broad liberal-arts approach to the study of law, this course is designed to familiarize students with legal ideas, legal reasoning, and legal processes. It also provides comparative and historical perspectives on law that will help explain legal diversity and legal change. Finally, it offers opportunities to explore some of the persistent issues in law and legal theory: for example, issues about the sources of law, the responsibilities of the legal profession, or the relative merits of the adversary system.

***POL SCI 1450 Introduction To Labor Studies: 3 semester hours***

This course covers many topics important to the role of unions in the American political system and American society from a labor perspective. Topics include the role of workers in current and future times, unions' institutional structure, collective bargaining strategies and obstacles for union organizing, recent union campaigns, labor's political role, and the relationship between labor and the media.

***POL SCI 1500 Introduction To Comparative Politics: 3 semester hours***

This course introduces students to western and non-western systems. It examines similarities and differences in the basic political ideologies, structures, economies, social institutions and governmental processes of developed and developing countries. It also provides frameworks for understanding the cultures of the world that are the basis for formal economic and political institutions. In addition, the course examines the role of non-state institutions, including trans-national ones, in shaping national policies. It uses case studies from Africa, Asia, Latin America, as well as Europe, to enhance student understanding of comparative politics. (This course fulfills the cultural diversity requirement.)

**POL SCI 1550 Women And Politics In The Developing World: 3 semester hours**

Women play a central role in the transformation of political, economic, cultural and gender relations in developing nations. This course examines the political role of women in these transformations. In particular, the course examines: 1) ways that modernity, universal education, the market economy and globalization have widened the scope of women's public activities; 2) the emergence of social movements driven by the transformation of economic and political roles brought about by the inclusion of women in the political arena; 3) the re-interpretation of religious doctrines, especially those that emphasize women's "return" to the private sphere and the legitimate denial of women's political rights. Fulfills the Cultural Diversity requirement.

**POL SCI 1600 Contemporary Political Ideologies: 3 semester hours**

An introduction to the major political ideologies of the world today. Emphasis is placed on democracy, feminism, Marxism, and nationalism.

**POL SCI 1800 World Politics: 3 semester hours**

An introduction to the field of international relations, covering such topics as nationalism, power, foreign policymaking, diplomacy, war, arms control and disarmament, interdependence, the regulation of conflict, and other aspects of politics among nations.

**POL SCI 2000 Political Analysis: 3 semester hours**

An introduction to political analysis, emphasizing both the logic of inquiry and practical methods. Students learn about the construction and evaluation of theories that relate to real-world politics. They also have an opportunity for hands-on experience with qualitative and quantitative methods including graphics, descriptive statistics, cross-tabular and correlational analysis, hypothesis testing, and computer applications.

**POL SCI 2260 Law, Politics and Society: 3 semester hours**

Prerequisites: POL SCI 1100 or POL SCI 1200 or consent of instructor. This course examines the ways in which law in America connects with politics and society. The course will cover the litigation process, access to the courts, how and why individuals and groups bring litigation to pursue political and policy goals, and how lawyers, judges and other political actors use law to solve policy problems. Attention will be placed on current legal policy issues facing American society.

**POL SCI 2280 Judicial Politics And Policy: 3 semester hours**

Prerequisites: POL SCI 1100 or POL SCI 1200 or consent of instructor. This course is an examination of the American state and federal legal systems. Topics examined in this course include an analysis of the structure, organization and foundation of courts. Emphasis will be placed on the role of juries, judges, attorneys, litigants, and interest groups in the judicial system. The objective of the course is to evaluate courts as political institutions and analyze the policy-making role of judges.

**POL SCI 2290 Gender And The Law: 3 semester hours**

Same as GS 2290. This course examines the ways in which laws and interpretations of the laws affect gender equality in the United States. Emphasizing how traditional roles impact both women and men historically and currently, the course highlights major pieces of legislation and court rulings related to employment, economics, education, sexual harassment, pornography, rape, reproductive rights, and domestic relations. The course stresses the impact of federal and state institutions and non-governmental influences on equality. It also addresses gender representation in the legal profession and its effect on judicial decisions. (This course satisfies State requirements in American History and Government).

**POL SCI 2300 State Politics: 3 semester hours**

Prerequisite: POL SCI 1100 Or consent of instructor. An examination of contemporary state politics in the U.S. Covers social, economic and political determinants of policies; federal-state-local relations, elections, interest groups and participation; executive legislative and judicial institutions and processes, policies and their impact. Course fulfills the state requirement.

**POL SCI 2320 African Americans And The Political System: 3 semester hours**

Prerequisites: POL SCI 1100 or consent of instructor. Examination of the status of African Americans in the context of the American political system. The course will focus on a number of issues, including: attitudes of various publics toward racial concerns; nature of problems in specific policy areas (e.g., unemployment, school desegregation, housing, poverty); representation of African Americans in governmental institutions and the private sector; and the role of African American leadership and civil rights groups in the political process. Course fulfills the state requirement.

**POL SCI 2350 Introduction To Urban Politics: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Examination of structure and process of politics in the urban community, with emphasis on their relationships to community power structures. Course fulfills the state requirement.

**POL SCI 2380 The Politics of Gender in the United States: 3 semester hours**

Same As GS 2380. Prerequisites: POL SCI 1100 or consent of instructor. This course examines the role of gender in political institutions, practices and policy in the United States, past for political equality, the relationship between gender and political participation, vote choice, and public opinion, and how legislative, executive, and judicial offices are gendered at the national, state, and local levels. (This course satisfies State requirements in American History and Government.).

**POL SCI 2400 Public Administration: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Survey of Public Administration, with reference to organization, financial administration, personnel management, judicial control of the administrative process. Course fulfills state requirement.

**POL SCI 2420 Introduction To Public Policy: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Study of differing approaches to understanding the public policy process. Course surveys the application of social science to public issues and problems. Course fulfills the state requirement.

**POL SCI 2500 Comparing Different Worlds: 3 semester hours**

This course focuses on the role of political institutions, economic structures and social groups in explaining differences in forms of government and levels of socio-economic development. It explores in detail one or more of these themes in cases drawn from developing and developed nations.

**POL SCI 2510 The Politics of European Union: 3 semester hours**

Prerequisite: POL SCI 1500 or consent of instructor. The European Union has become the driving force in European economic and social development. This course assesses the changing nature of national identity and national sovereignty in Europe. It compares and contrasts key public policies, (single market, welfare, migration, gender mainstreaming, "democratic deficits"), along with core EU actors and institutions, and includes participation in the annual Midwest Model EU.



**POL SCI 2520 Middle Eastern Politics: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 1500 Or consent of instructor. Survey of political movements, governments, and international conflicts in the Middle East. Islam, nationalism, ideologies and economic systems will be studied. The effect of oil and the military will also be considered. Course fulfills the non-Euro-American requirement.

**POL SCI 2530 Political Systems Of South America: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. An introduction to the study of the political systems of South America. Examination of the cultural context that has shaped the political, economic, and social development of states in the region. This course satisfies the Cultural Diversity requirement.

**POL SCI 2540 Political Systems Of Mexico, Central America And The Caribbean: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. An introduction to the study of the political systems of Mexico, Central America, and the Caribbean. Examination of the cultural context that has shaped the political, economic, and social development of these countries. This course satisfies the Cultural Diversity requirement.

**POL SCI 2550 East Asian Politics: 3 semester hours**

An introduction to the study of the Chinese and Japanese political systems. Examination of the cultural context that has shaped the path of political development for both states. This course satisfies the Cultural Diversity requirement.

**POL SCI 2580 African Politics: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An introduction to the nature of societies, governments, and international relations in Africa. The course deals with forms of governance on the continent, regional groupings of states, and persistent conflicts within and among states. Problems of economic underdevelopment, food supplies, health and population trends, and cultural change are analyzed, along with the role of outside major power intervention. Fulfills the Cultural Diversity requirement.

**POL SCI 2610 Ancient And Medieval Political Thought: 3 semester hours**

Study of political thought from Plato to Machiavelli.

**POL SCI 2620 Modern Political Thought: 3 semester hours**

Study of political thought from Machiavelli to the present.

**POL SCI 2650 American Political Thought: 3 semester hours**

History of political thought in the United States from Colonial times to the present.

**POL SCI 2820 United States Foreign Policy: 3 semester hours**

Prerequisite: POL SCI 1100 or POL SCI 1500, or consent of Instructor. Examination of the factors influencing the formation and the execution of American foreign policy, with a focus on specific contemporary foreign policy issues.

**POL SCI 2900 Studies In Political Science: 3 semester hours**

Selected topics in political science.

**POL SCI 3200 Constitutional Law: 3 semester hours**

Prerequisites: POL SCI 1100, or POL SCI 1200, or consent of the instructor. Study of leading American constitutional principles regarding legislative, executive, and judicial power, federalism, the commerce clause, and economic due process as they have evolved through the important decisions of the U.S. Supreme Court. Course fulfills the state requirement.

**POL SCI 3210 Civil Liberties: 3 semester hours**

Prerequisite: POL SCI 1100, or POL SCI 1200, or POL SCI 3200, or consent of instructor. Civil rights in the American constitutional context, emphasizing freedom of religion, freedom of expression, minority discrimination, and rights of defendants. Course fulfills the state requirement.

**POL SCI 3220 Labor Law: 3 semester hours**

Prerequisites: Consent of instructor In this course, participants will examine the role of government in the regulation of labor-management relations in the United States. While the focus of the course will be on federal laws regulating private sector labor relations, parallel issues addressed in the Railway Labor Act and state public sector labor relations law will also be covered. Specific topics include the legal framework for the organization of workers, definition of prohibited or unfair labor practices of employers and unions, legal regulation of the collective bargaining process, regulation of the use of economic weapons in labor disputes, enforcement of collective bargaining agreements and the regulation of internal trade union activities.

**POL SCI 3260 The Supreme Court: 3 semester hours**

Prerequisites: POL SCI 1100, or POL SCI 1200 or consent of the instructor An examination of the role, function and assertion of power by the U.S. Supreme Court in our constitutional democracy. Topics include an historical overview of the Supreme court, the process of selecting Supreme Court Justices, life in the Court, Supreme Court decision making, Supreme Court policymaking, implementation and impact of Court decisions and the role of the Supreme Court as a national policymaker. This course fulfills the state requirement.

**POL SCI 3300 The American Presidency: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Study of constitutional, political, legislative, and administrative roles played by the American chief executive in the development of public policy. Course fulfills state requirement.

**POL SCI 3330 Introduction To Political Behavior: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An introduction to political behavior employing perspectives from both political psychology and political sociology. Subjects include political socialization, the character of public opinion, citizen participation, group dynamics, the social determination of reality, and the underlying bases of leadership and authority. Course fulfills the state requirement.

**POL SCI 3331 Congressional Politics: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An examination of the Congress of the United States, its history and evolution, its contemporary politics, and its role in the national policy-making process. Topics include candidate recruitment, campaigns and elections, representation, committees, legislative leadership, roles and norms, voting alignments, lobbyists and interest groups, oversight of administration, and House-Senate comparisons, the role of Congress in foreign policy, economic policy, social-welfare policy will be examined.

**POL SCI 3340 Politics And The Media: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An analysis of the role the media play in shaping American political life. The first part of the course examines the organizational structures, the economic and psychic incentives, and the social and professional norms that define how television and newspapers report news about public affairs. The second part then considers the nature of a mass-communications society by looking at how reality is defined, the susceptibility of mass publics to persuasion and propaganda, the peculiar form of media election campaigns, and the manner in which the media link changes the basic character of a citizenry.



**POL SCI 3350 Political Parties And Elections: 3 semester hours**

Prerequisite: POL SCI 1100 Or Consent Of Instructor. Development, Organization, Functions, Activities Of Major And Minor Political Parties, Pressure Groups, Election Administration, Especially In The United States. Course Fulfills The State Requirement.

**POL SCI 3390 Studies In American Politics: 3 semester hours**

Prerequisite: POL SCI 1100 Or Consent Of Instructor. Selected Topics In American Politics. May Be Repeated.

**POL SCI 3420 Public and NonProfit Personnel Management: 3 semester hours**

Prerequisite: POL SCI 1100, POL SCI 2400 or consent of instructor. A study of personnel practices in the public and nonprofit sectors, including recruitment, job development, labor relations, and administration of equal employment/ affirmative action Programs.

**POL SCI 3430 Union Leadership And Administration: 3 semester hours**

Prerequisites: Consent of instructor This course will focus on the roles and challenges of union leadership in a changing environment. Topics will include the union leader's roles as representative, organizer and educator as well as administrative responsibilities within the union and the relationship with enterprise management in both adversarial and participatory situations. Options for leadership style and organizational models will be discussed and explored in both theory and practice. Leaders will develop their skills of motivation, speaking strategic planning and managing complex campaigns and diverse organizations.

**POL SCI 3440 Public and NonProfit Budgeting: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor Budgeting is the study of "who gets what" and who pays for it. This course examines the administration and politics of federal, state, and local government budgets. Students gain experience in interpreting budget documents and making budget choices, using electronic and other resources.

**POL SCI 3450 Urban Administration: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. Study of administrative machinery and practices of metropolitan government, how metropolitan areas organize themselves to provide services, how urban policies are made and implemented, how budgeting and personnel recruitment processes operate, and how these relate to urban policies. Course fulfills state requirement.

**POL SCI 3460 The Politics Of Poverty And Welfare: 3 semester hours**

Prerequisite: POL SCI 1100 or consent of instructor. An examination of the structure of income inequality in the U.S. and public policies designed to redistribute wealth and to treat poverty. The history of welfare programs, the growth of the welfare state, and attempts to cut social spending are closely examined.

**POL SCI 3470 Collective Bargaining: 3 semester hours**

This course involves a study of collective bargaining processes including contract negotiations, contract administration, and methods for the resolution of bargaining disputes. Both theoretical and applied issues in collective bargaining will be addressed. Specific topics include the economic determination of bargaining power, legal constraints on the bargaining process, negotiation strategies and techniques, and the use of mediation and arbitration in the resolution of bargaining disputes.

**POL SCI 3480 Environmental Politics: 3 semester hours**

Prerequisites: POL SCI 1100 or consent of instructor This course examines the process of environmental policymaking and key environmental issues. Topics include national and international policies toward air and water pollution, energy use, solid and toxic waste disposal, global warming, overpopulation, and wilderness and wildlife conservation.

**POL SCI 3570 Gender, Ethnicity and Public Policy: 3 semester hours**

Prerequisite: POL SCI 1100, or POL SCI 1500, or consent of instructor. Raises the question as to whether "more women in politics," stemming from diverse economic, racial, ethnic backgrounds and age groups, will necessarily result in better policies for women and men. Compares gendered and racialized impacts of a wide array of public policies (in the areas of education, employment health care, welfare, and reproductive technologies) across a broad sample of advanced industrial societies. Analyzes the "empowerment" potential of new equality policies being generated at the international and supranational levels (e.g., in the UN and the European Union).

**POL SCI 3580 African Diasporas: Identity Politics And Transnational Communities: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. This course focuses on the role of Africa's regional and global diaspora(s) in the construction of post-modern identities, democratization and foreign policymaking in diverse countries.

**POL SCI 3590 Women and Leadership World-Wide: Breaking the Glass Ceiling: 3 semester hours**

Same as GS 3590. Prerequisites: POL SCI 1500 or consent of instructor. Compares women's day-to-day leadership and participation patterns across a wide variety of political-economic contexts, emphasizing their performance as elective and executive office holders. It examines the experiences of individual female leaders, the effect of country-specific nomination and recruitment strategies, party dynamics, and the larger political opportunity structure hindering or promoting the balanced participation of women and men in national leadership. Understanding how gender (the socially constructed meanings related to biological sex) operates within these specific contexts is a major concern.

**POL SCI 3595 Studies In Comparative Politics: 3 semester hours**

Prerequisites: POL SCI 1500 or consent of instructor. Selected topics in comparative politics. May be repeated.

**POL SCI 3690 The Marxist Heritage: 3 semester hours**

Same as PHIL 3369. An interdisciplinary study of Marx and leading Marxists, designed to evaluate their influence on recent political, economic, and social thought and institutions.

**POL SCI 3700 NonProfit Organizations and Public Policy: 3 semester hours**

Prerequisites: POL SCI 1100; Recommended: POL SCI 2420. This course explores the roles of nonprofit organizations in public policy issues through citizen advocacy and political participation. The course begins with an overview of the scope of the nonprofit sector and then examines its political and legal foundations in the U.S. Theories about civic engagement and the rights of association are considered. Students will gain practical knowledge about direct and grassroots lobbying by nonprofit organizations. Discussion and analysis of actual advocacy campaigns carried out through nonprofit effort will be included. The course also investigates the formation of nonprofit political action committees (PACs) and other so-called 527 organizations, as well as ethical abuses of the nonprofit form for political purposes.

***POL SCI 3710 NonProfits, Civil Society and Volunteerism: 3 semester hours***

Prerequisites: POL SCI 1100 and junior standing. This course introduces basic concepts about the role of voluntary action in democratic society, especially in the context of organizations in the nonprofit sector. Theories of civil society and social capital are explored. Selected approaches to leadership are considered, in addition to the variety of motivations for giving time and resources to the pursuit of social and political change. Students will gain practical skill development in the recruitment, training and utilization of volunteers. Through study of recent case examples, students will develop an appreciation for the characteristics of effective leadership and strategic use of volunteers. In addition, the course includes an overview of new technologies that are being used by voluntary organizations to enlist participation and strengthen commitment of supporters.

***POL SCI 3830 International Political Economy: 3 semester hours***

Prerequisite: POL SCI 1100 or POL SCI 1500, or consent of instructor. This course provides an introduction to international political economy. In particular, it will focus on the politics of international trade, finance, and investment. It will analyze the relationships between developed and developing countries and it will assess the relative usefulness of alternative frameworks for studying international political economy.

***POL SCI 3850 International Organizations And Global Problem-Solving: 3 semester hours***

Prerequisites: POL SCI 1100, POL SCI 1200, or consent of the instructor. Introduction to the study of international organization. The course focuses on relationships between nation-states and "nonstate" actors (e.g., global intergovernmental organizations such as multinational corporations) in world politics and on the role of international institutions in such problem areas as economic development, management of resources, and control of violence across national boundaries.

***POL SCI 3860 Studies In War And Peace: 3 semester hours***

Prerequisite: POL SCI 1100, POL SCI 1500, or consent of instructor. Exploration, development, and testing of theories about the causes and consequences of war, peace, and conflict among nations. A broad range of literature on war and peace will be reviewed, and applied to crisis situations in the international system.

***POL SCI 3890 Studies In International Relations: 3 semester hours***

Prerequisite: POL SCI 1100, POL SCI 1500, or consent of instructor. Selected topics in international relations. May be repeated.

***POL SCI 3900 Special Readings: 1-10 semester hours***

Prerequisite: Consent of instructor. Independent study through readings, reports, and conferences. May be repeated.

***POL SCI 3940 Public Affairs Internship: 1-6 semester hours***

Prerequisite: Junior standing and consent of instructor. Independent study involving work with an appropriate public or private agency. A maximum of six credit hours may be earned.

***POL SCI 3950 Senior Seminar In Political Science: 3 semester hours***

Prerequisite: POL SCI 2000, senior standing and consent of instructor. Required of all political science majors in their last year of coursework as an integrative, capstone experience. Emphasis is on student-faculty interaction in a seminar format designed to engage upper-level students in a critical examination of a broad theme in political science, leading to the production of a major research paper. Topics vary. May be repeated. This course is not available for graduate student credit.

***POL SCI 4040 Survey Research Practicum in Political Science: 3 semester hours***

Prerequisite: Junior standing and consent of the instructor. The execution of a sample survey, including establishing study objectives, sampling, questionnaire construction, interviewing, coding, data analysis, and presentation of results.

***POL SCI 4060 Theory Of Decisions And Games: 3 semester hours***

Prerequisites: Six hours of Philosophy and junior standing, or Political Sci 6401 (or the equivalent, or consent of the instructor. A study of rational decision-making, including games against nature, zero-sum games, and social choices. Topics will include the following: expected utility maximization, the Prisoner's Dilemma, Nash equilibria, and Arrow's theorem on the impossibility of a social welfare function. Parts of the course are technical in nature; a prior course in mathematics (e.g., finite mathematics, calculus, statistics or an economics course with a mathematical component), symbolic logic, or some other course with comparable mathematical content. (Same as Philosophy 4465).

***POL SCI 4090 American Government For The Secondary Classroom: 3 semester hours***

Same as: SEC ED 4090 Prerequisites: Admission to the Teacher Education Program. TCH ED 3310 or the consent of the instructor. Adapts the themes and subject matter of American Government to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting methods of inquiry for use in an interactive classroom. Can be counted towards the Political Science major requirement, but not the American Politics subgroup. Counts towards Social Studies certification. Not available for graduate credit.

***POL SCI 4460 Urban Planning And Politics: 3 semester hours***

Prerequisite: POL SCI 1100, POL SCI 2400, or consent of instructor. Examination of the political processes of urban areas, as they relate to the planning of services and facilities. Course fulfills state requirement.

***POL SCI 4510 Comparative Public Policy And Administration: 3 semester hours***

Prerequisite: POL SCI 1500 or consent of instructor. A comparative study of the characteristics of public administrators, their institutions and environments in western democratic, developing nations and communist political systems.

***POL SCI 4520 Mega-Cities and Diasporas: Understanding Global Migration: 3 semester hours***

Prerequisites: POL SCI 1500 or consent of instructor. This course examines the causes, dynamics and effects of mega-city development and migrating diasporas in a variety of national settings. Case studies include cities based in Europe, South America, China, India, Turkey, and parts of Africa, fostering global awareness, as well as an understanding of the "interconnectedness" of politics, economics and climate change across the planet.

***POL SCI 4850 International Law: 3 semester hours***

PREREQUISITE: POL SCI 1100, POL SCI 1500, or consent of instructor. Study of the international legal system, including the content and operation of the laws of war and peace, how law is created and enforced with regard to the oceans and other parts of the globe, and the relationship between international law and international politics.

***POL SCI 4900 Topics In Political Science: 3 semester hours***

Prerequisites: POL SCI 1100 or consent of instructor Selected topics in Political Science.

***POL SCI 6300 Leadership and Management in NonProfit******Organizations: 3 semester hours***

Same as P P ADM 6300 and SOC WK 6300. Prerequisites: Graduate standing required. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

***POL SCI 6401 Introduction To Policy Research: 3 semester hours***

Procedures for testing explanations, including research design, principles of measurement, probability sampling, methods of data collection, and techniques for analyzing data.

***POL SCI 6402 Intermediate Techniques In Policy Research: 3 semester hours***

Prerequisite: Graduate standing and POL SCI 6401. elementary distribution theory, statistical inference, and introduction to multiple regression. Emphasis on practical applications.

***POL SCI 6403 Advanced Techniques In Policy Research: 3 semester hours***

Prerequisite: Graduate standing and POL SCI 6402. Selected topics in policy research emphasizing forecasting, modeling and estimation.

***POL SCI 6404 Multi-Method Research Design: 3 semester hours***

Prerequisite: POL SCI 6403 or consent of instructor. Develops policy research skills that combine qualitative and quantitative social science tools and applies an appropriate mix of these tools to specific policy problems. Topics include alternative approaches to causal analysis, levels of analysis, triangulation from a variety of qualitative and quantitative research techniques, building contextual effects into multiple research projects, techniques for assessing alternative program theories and clarifying implicit assumptions, and meta-analysis of secondary data sources.

***POL SCI 6405 Directed Readings In Research Methods: 1-10 semester hours***

Independent study through readings, reports, research projects, and conferences.

***POL SCI 6410 Introduction To Policy Analysis: 3 semester hours***

Same as P P ADM 6000. Systematic development of a critical/analytic base for dealing with public policy.

***POL SCI 6415 Directed Readings And Research In Public Policy: 1-10 semester hours***

Same as P P ADM 6150. Prerequisite: Consent of instructor. Independent study through readings, reports, research projects, and conferences. May be repeated for credit, provided the subject matter is different.

***POL SCI 6418 Social & Economic Development Policy: 3 semester hours***

Same as SOC WK 6250. Prerequisites: SOC WK 5200 or equivalent or consent of instructor and graduate standing. Examines major trends and alternatives in social and economic development policy and practice in state, national, and international perspectives. Students will develop skills in policy analysis and development.

***POL SCI 6420 Proseminar In Public Law: 3 semester hours***

Study of judicial systems and processes (judges, courts, litigants, and juries) and evaluation of legal policies (Compliance, impact and deterrence).

***POL SCI 6421 Seminar In Public Law: 3 semester hours***

Research problems and designs, models and approaches to the study of public law. May be repeated for credit when the subject matter is different.

***POL SCI 6422 Law, Courts And Public Policy: 3 semester hours***

Same as CRIMIN 6422. Prerequisites: Graduate Standing. An analysis of the role of courts as policymaking institutions and the law as policy. We will explore the role of judges as policymakers, consider the attributes of courts, (both trial and appellate) that make them appropriate yet limited targets for advocates of reform, and the implementation and impact of court decisions. We will consider recent examples of judicial involvement in state and national policymaking. In addition, we will examine the role of lawyers and interest groups in selecting litigation rather than alternative political processes for policy change.

***POL SCI 6425 Directed Readings And Research In Public Law: 1-10 semester hours***

Independent study through readings, reports, research projects, and conferences.

***POL SCI 6430 Proseminar In American Politics: 3 semester hours***

Study of individual and group political behavior including socialization, participation, consensus formation, representation, legislative and judicial behavior.

***POL SCI 6431 Seminar In American Politics: 3 semester hours***

Research problems and design in American political process and behavior. May be repeated for credit when the subject matter is different.

***POL SCI 6435 Directed Readings And Research In American Politics: 1-10 semester hours***

Independent study through readings, reports, research projects, and conferences.

***POL SCI 6440 Proseminar In Public Policy Administration: 3 semester hours***

Examination of major approaches to analyzing public policies and their administration. Emphasis is on the effects of administrative organization and procedures on policy decisions and their impacts. Specific topics may include administrative accountability, inter-governmental relations, public-private interaction, implementation of processes, bureaucratic expertise, the legal environment of public service and merit issues.

***POL SCI 6442 The Policy Process: 3 semester hours***

Prerequisite: Graduate Standing. The course will require a major research project using federal documents and other primary sources of information about the U.S. policy process. Topics will include the sources of public policy; the policy agenda; policy design, legitimation, and implementation.

***POL SCI 6443 Health Care Policy: 3 semester hours***

Same as P P ADM 6430, GERON 6443, and SOC WK 6443.

Prerequisites: Graduate Standing or consent of instructor. Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

***POL SCI 6444 Seminar In Public Policy And Aging: 3 semester hours***

Same as GERON 6444 and P P ADM 6444. Prerequisites: Consent of instructor. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include: housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

***POL SCI 6445 Directed Readings And Research In Public Administration: 1-10 semester hours***

Independent study through readings, reports, research projects, and conferences.



***POL SCI 6446 Selected Topics In Health Care Policy: 3 semester hours***

Same as P P ADM 6460. Prerequisite: Consent of Instructor. The study of specialized issues and methods relating to health care policy. May be repeated for credit, provided the subject matter is different.

***POL SCI 6448 Political Economy And Public Policy: 3 semester hours***

Prerequisite: Graduate standing. This course examines political economy in its contemporary manifestations as public choice and as the study of the ways in which institutional power shapes economic policies and performance. The course explores the origins and major concepts of political economy, the institutions of economic policymaking and economic policies in the U. S. It emphasizes the consequences of budget constraints inflation, unemployment and sectoral decline on the design and administration of public programs at all levels of government.

***POL SCI 6449 Human Resources In The Public Sector: 3 semester hours***

Same as SOC WK 6449 and P P ADM 6490. Prerequisites: P P ADM 6600 or consent of Instructor. Presents an overview of personnel and labor relations in the public sector. Particular emphasis placed on issues which are unique to the public sector such as the merit system, the questions of representative bureaucracy and the constraints of personnel in the nonprofit sector. The topics include: personnel reforms in the federal sector, equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation and labor relations including grievance arbitration and collective bargaining.

***POL SCI 6450 Proseminar In Comparative Politics: 3 semester hours***

Classification and typology of political systems; structural-functional analysis; political culture, ideology, affiliation and participation; decision-making processes; political roles; organization of authority.

***POL SCI 6451 Seminar In Comparative Politics: 3 semester hours***

Research problems and design in comparative politics. May be repeated for credit when the subject matter is different.

***POL SCI 6452 Public Policy Of Conservation And Sustainable Development: 3 semester hours***

Same as BIOL 6250. Prerequisites: Graduate standing in Political Science or Biology and consent of instructor. Prior course in ecology is recommended. This course will introduce the student to concepts and techniques for formulating, implementing, and analyzing public policy with an emphasis on environmental concerns, conservation, and sustainable development. The course will be team taught by a political scientist and a biologist. Course materials will include case studies that demonstrate the special problems of environmental policymaking in developing and developed economies.

***POL SCI 6455 Directed Readings And Research In Comparative Politics: 1-10 semester hours***

Independent study through readings, reports, research projects, and conferences.

***POL SCI 6465 Directed Readings And Research In Political Theory: 1-10 semester hours***

Independent study through readings, reports, research projects, and conferences.

***POL SCI 6470 Proseminar In Urban Politics: 3 semester hours***

Examination of the relationship between the social, economic and political systems of urban areas. Urban political structure, patterns of influence, political participation and communication and political change. Special attention to problems of access to and control of urban political systems.

***POL SCI 6471 Seminar In Urban Politics: 3 semester hours***

Research problems and design in urban and regional politics. May be repeated for credit when the subject matter is different.

***POL SCI 6475 Directed Readings And Research In Urban Politics: 1-10 semester hours***

Independent study through readings, reports and conferences.

***POL SCI 6480 Proseminar In International Relations: 3 semester hours***

Examination of various approaches to the study of international politics and foreign policy, focusing on studies of conflict, decision-making, international political economy, and related topics. Included are realist, idealist, and Marxist perspectives.

***POL SCI 6481 Seminar In International Relations: 3 semester hours***

Research problems and design in international politics. May be repeated for credit when the subject matter is different.

***POL SCI 6482 International Political Economy: 3 semester hours***

Prerequisite: Graduate standing. This course will examine the theoretical and policy issues of international political economy. In particular, it will focus on the politics of international trade, finance and investment. It will also analyze the themes of interdependence, hegemony, and dependency, as well as consider relations between developed and developing countries. Finally, the relative usefulness of liberal, Realist and Marxist approaches to the study of international political economy will be weighed.

***POL SCI 6485 Directed Readings And Research In International Relations: 1-10 semester hours***

Independent study through readings, reports, research projects, and conferences.

***POL SCI 6488 Studies In International Relations: 1-6 semester hours***

PREREQUISITES: Graduate standing or permission of instructor. Selected topics in international studies. May be repeated for credit provided the topic of the course is different each time.

***POL SCI 6490 Strategic & Program Planning For Nonprofit Organizations: 3 semester hours***

Same as P P ADM 6550 and SOC WK 6491. Prerequisites: Graduate standing or consent of instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, a vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

***POL SCI 6494 Thesis Research: 1-10 semester hours******POL SCI 6495 Internship: 1-6 semester hours***

Independent study involving work with an appropriate public or private agency.

***POL SCI 6499 Directed Dissertation Proposal Research: 3 semester hours***

Prerequisites: Consent of Instructor. Supervised study through readings and research leading to the preparation of a dissertation proposal plan. Open to doctoral students who have completed at least 42 hours of course work. The proposal plan will indicate the following: statement of research question, importance of the problem, literature review and research design.

***POL SCI 7499 Dissertation Research: 1-10 semester hours***

## Public Policy Administration



## Courses

### ***P P ADM 6000 Introduction To Policy Analysis: 3 semester hours***

Same as POL SCI 6410. Systematic development of a critical/analytic base for dealing with public policy.

### ***P P ADM 6010 Introduction To Policy Research: 3 semester hours***

Same as POL SCI 6401. Procedures for testing explanations, including research design, principles of measurement, probability sampling, methods of data collection, and techniques for analyzing data.

### ***P P ADM 6080 Microeconomics For Policy Analysis: 3 semester hours***

Same as ECON 5010. Prerequisite: Graduate student standing. This course introduces microeconomic analysis of consumers, firms, and government, with an emphasis on policy applications. It assumes no prior training in economics and is appropriate for graduate students in public policy administration, nonprofit management, political science, gerontology, criminology and criminal justice, and other related fields.

### ***P P ADM 6150 Directed Readings And Research In Public Policy: 1-10 semester hours***

Same as POL SCI 6415. Prerequisite: Consent of instructor. Independent study through readings, reports, research projects, and conferences. May be repeated for credit, provided the subject matter is different.

### ***P P ADM 6180 Governmental Budgeting And Financial Control: 3 semester hours***

Same as BUS AD 5450. Prerequisite: ACCTNG 5400 a study of municipal and federal financial control and budgeting procedures with emphasis on public policy. The impact of financial control on top management decisions and the effect of budget strategies on the allocations of public funds.

### ***P P ADM 6210 Public Sector Microeconomics: 3 semester hours***

Same as ECON 5500. Prerequisites: ECON 3001 or BUS AD 5001 or P P ADM 6080. Application of tools of intermediate microeconomics to address public sector issues. Special emphasis is placed on critically analyzing current public policy debates using the models developed. Topics include: cases in which competitive market fails to allocate resources efficiently (e.g. externalities and public goods), importance of property rights, incentive effects of the tax and transfer system, and the fundamentals of cost/benefit analysis.

### ***P P ADM 6300 Leadership and Management in Nonprofit Organizations: 3 semester hours***

Same as POL SCI 6300 and SOC WK 6300. Prerequisites: Graduate standing required. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

### ***P P ADM 6310 American Philanthropy and Nonprofit Resources Development: 3 semester hours***

Same as SOC WK 6310. Prerequisites: Graduate Standing Required. This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the nonprofit, voluntary sector. It further examines the contemporary forces which impact philanthropy and charitable giving, both by institutions and individuals. The course examines the effective planning and management of development programs (e.g., annual giving), fund raising vehicles (e.g., mail solicitations) and the fund raising process, form planning through donor relations.

### ***P P ADM 6311 Staff Management Issues in Nonprofit Organizations: 1 semester hour***

Same as SOC WK 6311. Prerequisites: Graduate standing required. This course addresses issues involved in managing staff in nonprofit organizations. The course will cover the following topics: fundamentals of staff supervision; balancing supervisory processes with counseling and coaching; selecting, hiring, evaluating, and terminating staff' legal issues that affect these processes.

### ***P P ADM 6312 Legal Issues in Managing Nonprofit Organizations: 1 semester hour***

Same as SOC WK 6312. Prerequisites: Graduate Standing required. This course addresses legal issues involved in managing and governing nonprofit organizations. The course will cover the following topics: The Board as steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

### ***P P ADM 6313 Financial Issues In Managing Nonprofit Organizations: 1 semester hour***

Same as SOC WK 6313. Prerequisite: Graduate standing required. This course addresses financial issues involved in governing and managing nonprofit organizations. The course will cover the following topics: Cash flow analysis; budgeting; fund accounting; cost accounting (determining costs for programs and services); understanding and using standard financial statements, including balance sheets, cash flow statements, statements of activity, and operating and capital budgets.

### ***P P ADM 6340 Seminar In City Administration: 3 semester hours***

This course provides an overview of the working environment of a city administrator and is jointly sponsored by the local city managers association. Professional city personnel make presentations to the students on six major topics: political structure, organizational structure, service delivery, finance, personnel policies and practices, and leadership. The course provides direct observation of city council meetings, visits to various city facilities, exposure to different philosophies and styles of city management, and provides students a chance to assemble facts, evaluate options, and present policy recommendations for real problems that local administrators face.

### ***P P ADM 6350 Issues In Urban Management: 3 semester hours***

Designed to evaluate management issues that confront managers in local government from a political perspective. The format will include an intense review and discussion of original case studies from actual local government situations. The specific focus of this course will vary. Course may be repeated.

### ***P P ADM 6400 Proseminar In Public Administration: 3 semester hours***

Same as POL SCI 6440. Examination of major approaches to analyzing public policies and their administration. Emphasis is on the effects of administrative organization and procedures on policy decisions and their impact. Specific topics may include administrative accountability, inter-governmental relations, public private interaction, implementation processes, bureaucratic expertise, the legal environment of public administration, and public service and merit issue.

### ***P P ADM 6430 Health Care Policy: 3 semester hours***

Same as GERON 6443, POL SCI 6443, and SOC WK 6443. Prerequisites: Graduate standing or consent of instructor. Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

***P P ADM 6444 Seminar in Public Policy and Aging: 3 semester hours***

Same as GERON 6444 and POL SCI 6444. Prerequisites: Consent of instructor. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

***P P ADM 6460 Selected Topics In Health Care Policy: 3 semester hours***

Same as POL SCI 6446. Prerequisite: consent of instructor. The study of specialized issues and methods relating to health care policy. May be repeated for credit, provided the subject matter is different.

***P P ADM 6470 Proseminar In Urban Politics: 3 semester hours***

Same As: POL SCI 6470. Examination of the relationship between the social, economic and political systems of urban areas. Urban political structure, patterns of influence, political participation and communication and political change. Special attention to problems of access to and control of urban political systems.

***P P ADM 6471 Seminar In Urban Politics: 3 semester hours***

Same As: POL SCI 6471. Research problems and design in urban and regional politics. May be repeated for credit when the subject matter is different.

***P P ADM 6490 Human Resources In The Public Sector: 3 semester hours***

Same as POL SCI 6449 and SOC WK 6449. Prerequisites: P P ADM 6600 or consent of instructor. Presents an overview of personnel and labor relations in the public sector. Particular emphasis placed on issues which are unique to the public sector such as the merit system, the questions of representative bureaucracy and the constraints of personnel in the nonprofit sector. The topics include: personnel reforms in the federal sector, equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation and labor relations including grievance arbitration and collective bargaining.

***P P ADM 6500 Selected Topics in Public Policy Administration: 3 semester hours***

Prerequisites: Graduate Standing. Permission of instructor may be required. A seminar of selected issues and methods relating to public policy administration. May be repeated for credit, provided the subject matter is different.

***P P ADM 6501 Selected Topics in Nonprofit Management and Leadership: 3 semester hours***

Prerequisites: Graduate standing. Permission of instructor may be required. A seminar of selected issues and methods relating to nonprofit management and leadership. May be repeated for credit, provided the subject matter is different.

***P P ADM 6510 Urban And Regional Planning And Public Policy: 3 semester hours***

Prerequisites: Graduate standing or consent of instructor. This course focuses on the interdependent processes of urbanization and public policy. Students will acquire an understanding of urban planning and public policy processes in North America.

***P P ADM 6550 Strategic And Program Planning For Non Profit Organizations: 3 semester hours***

Same as POL SCI 6490 and SOC WK 6491. Prerequisite: Graduate Standing or Consent of Instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

***P P ADM 6600 Organizational Behavior And Administrative Processes: 3 semester hours***

Same as MGMT 5600. The theoretical and research contribution of the behavioral sciences to management and administration are examined and applied to selected organizational situations. Areas to be considered from the standpoint of both individual and organizational performance are communication, motivation, conflict, decision making, goal setting, leadership, organizational design, climate, development, and control. Utilizing a systems perspective, the course attempts to develop in each student an ability to analyze and solve organizational problems.

***P P ADM 6680 Negotiating Workplace Conflict: 3 semester hours***

Same as MGMT 5612. Prerequisites: P P ADM 6600 / MGMT 5600 and Graduate Standing. Examines conflict and cooperation between individuals, groups and organizations over the control of work. A central theme is how this conflict is expressed, controlled, and resolved. Students will participate in exercises to learn the basics of two-party negotiations.

***P P ADM 6750 Introduction To Evaluation Research Methods: 3 semester hours***

Prerequisites: At least one course in research design and statistics at the graduate level. A comparative study of research strategies with regard to data sources, data collection, and modes of analysis that are appropriate for program evaluation research. Attention is given to observational, survey, and quasi-experimental methodologies.

***P P ADM 6751 Applied Evaluation Project: 3 semester hours***

Prerequisites: P P ADM 6000, P P ADM 6010 or equivalents, P P ADM 6750 or equivalents. Independent study involving an evaluation project with an appropriate public or private or nonprofit agency.

***P P ADM 6800 Management Information Systems: 3 semester hours***

Same as INFSYS 5800 This course provides an overview of the established and contemporary issues related to information systems within organizations. Topics include the practices and tools associated with topics such as the management of IS-based investment projects, the design and implementation of IS, the alignment of IS strategy with organizational strategy, information security and privacy, and gaining a competitive advantage through IS.

***P P ADM 6850 Information Technology and The Public and Nonprofit Sectors: 1 semester hour***

Prerequisite: Graduate Standing. This course addresses information technology in the public sector from a managerial perspective. Course goals include an increase in student's knowledge and understanding of basic hardware, software, data, and information management issues from a managerial perspective. These topics include, but are not limited to: web portal design, geographic information systems, database management, e-government, strategic design, and the use of information technology to address public policy questions.

**P P ADM 6900 Cases In Public Policy Administration: 3 semester hours**

Prerequisites: 24 hours of public policy administration courses, at least 15 of which are in core courses. This capstone course intensively analyzes public policy administration cases drawn from a variety of issues and settings.

**P P ADM 6950 Internship: 3 semester hours**

Independent study involving work with an appropriate public or private or nonprofit agency.

**Courses****P P ADM 6000 Introduction To Policy Analysis: 3 semester hours**

Same as POL SCI 6410. Systematic development of a critical/analytic base for dealing with public policy.

**P P ADM 6010 Introduction To Policy Research: 3 semester hours**

Same as POL SCI 6401. Procedures for testing explanations, including research design, principles of measurement, probability sampling, methods of data collection, and techniques for analyzing data.

**P P ADM 6080 Microeconomics For Policy Analysis: 3 semester hours**

Same as ECON 5010. Prerequisite: Graduate student standing. This course introduces microeconomic analysis of consumers, firms, and government, with an emphasis on policy applications. It assumes no prior training in economics and is appropriate for graduate students in public policy administration, nonprofit management, political science, gerontology, criminology and criminal justice, and other related fields.

**P P ADM 6150 Directed Readings And Research In Public Policy: 1-10 semester hours**

Same as POL SCI 6415. Prerequisite: Consent of instructor. Independent study through readings, reports, research projects, and conferences. May be repeated for credit, provided the subject matter is different.

**P P ADM 6180 Governmental Budgeting And Financial Control: 3 semester hours**

Same as BUS AD 5450. Prerequisite: ACCTNG 5400 a study of municipal and federal financial control and budgeting procedures with emphasis on public policy. The impact of financial control on top management decisions and the effect of budget strategies on the allocations of public funds.

**P P ADM 6210 Public Sector Microeconomics: 3 semester hours**

Same as ECON 5500. Prerequisites: ECON 3001 or BUS AD 5001 or P P ADM 6080. Application of tools of intermediate microeconomics to address public sector issues. Special emphasis is placed on critically analyzing current public policy debates using the models developed. Topics include: cases in which competitive market fails to allocate resources efficiently (e.g. externalities and public goods), importance of property rights, incentive effects of the tax and transfer system, and the fundamentals of cost/benefit analysis.

**P P ADM 6300 Leadership and Management in Nonprofit Organizations: 3 semester hours**

Same as POL SCI 6300 and SOC WK 6300. Prerequisites: Graduate standing required. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

**P P ADM 6310 American Philanthropy and Nonprofit Resources Development: 3 semester hours**

Same as SOC WK 6310. Prerequisites: Graduate Standing Required. This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the nonprofit, voluntary sector. It further examines the contemporary forces which impact philanthropy and charitable giving, both by institutions and individuals. The course examines the effective planning and management of development programs (e.g., annual giving), fund raising vehicles (e.g., mail solicitations) and the fund raising process, from planning through donor relations.

**P P ADM 6311 Staff Management Issues in Nonprofit Organizations: 1 semester hour**

Same as SOC WK 6311. Prerequisites: Graduate standing required. This course addresses issues involved in managing staff in nonprofit organizations. The course will cover the following topics: fundamentals of staff supervision; balancing supervisory processes with counseling and coaching; selecting, hiring, evaluating, and terminating staff' legal issues that affect these processes.

**P P ADM 6312 Legal Issues in Managing Nonprofit Organizations: 1 semester hour**

Same as SOC WK 6312. Prerequisites: Graduate Standing required. This course addresses legal issues involved in managing and governing nonprofit organizations. The course will cover the following topics: The Board as steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

**P P ADM 6313 Financial Issues In Managing Nonprofit Organizations: 1 semester hour**

Same as SOC WK 6313. Prerequisite: Graduate standing required. This course addresses financial issues involved in governing and managing nonprofit organizations. The course will cover the following topics: Cash flow analysis; budgeting; fund accounting; cost accounting (determining costs for programs and services); understanding and using standard financial statements, including balance sheets, cash flow statements, statements of activity, and operating and capital budgets.

**P P ADM 6340 Seminar In City Administration: 3 semester hours**

This course provides an overview of the working environment of a city administrator and is jointly sponsored by the local city managers association. Professional city personnel make presentations to the students on six major topics: political structure, organizational structure, service delivery, finance, personnel policies and practices, and leadership. The course provides direct observation of city council meetings, visits to various city facilities, exposure to different philosophies and styles of city management, and provides students a chance to assemble facts, evaluate options, and present policy recommendations for real problems that local administrators face.

**P P ADM 6350 Issues In Urban Management: 3 semester hours**

Designed to evaluate management issues that confront managers in local government from a political perspective. The format will include an intense review and discussion of original case studies from actual local government situations. The specific focus of this course will vary. Course may be repeated.



***P P ADM 6400 Proseminar In Public Administration: 3 semester hours***

Same as POL SCI 6440. Examination of major approaches to analyzing public policies and their administration. Emphasis is on the effects of administrative organization and procedures on policy decisions and their impact. Specific topics may include administrative accountability, inter-governmental relations, public private interaction, implementation processes, bureaucratic expertise, the legal environment of public administration, and public service and merit issue.

***P P ADM 6430 Health Care Policy: 3 semester hours***

Same as GERON 6443, POL SCI 6443, and SOC WK 6443.

Prerequisites: Graduate standing or consent of instructor. Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

***P P ADM 6444 Seminar in Public Policy and Aging: 3 semester hours***

Same as GERON 6444 and POL SCI 6444. Prerequisites: Consent of instructor. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

***P P ADM 6460 Selected Topics In Health Care Policy: 3 semester hours***

Same as POL SCI 6446. Prerequisite: consent of instructor. The study of specialized issues and methods relating to health care policy. May be repeated for credit, provided the subject matter is different.

***P P ADM 6470 Proseminar In Urban Politics: 3 semester hours***

Same As: POL SCI 6470. Examination of the relationship between the social, economic and political systems of urban areas. Urban political structure, patterns of influence, political participation and communication and political change. Special attention to problems of access to and control of urban political systems.

***P P ADM 6471 Seminar In Urban Politics: 3 semester hours***

Same As: POL SCI 6471. Research problems and design in urban and regional politics. May be repeated for credit when the subject matter is different.

***P P ADM 6490 Human Resources In The Public Sector: 3 semester hours***

Same as POL SCI 6449 and SOC WK 6449. Prerequisites: P P ADM 6600 or consent of instructor. Presents an overview of personnel and labor relations in the public sector. Particular emphasis placed on issues which are unique to the public sector such as the merit system, the questions of representative bureaucracy and the constraints of personnel in the nonprofit sector. The topics include: personnel reforms in the federal sector, equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation and labor relations including grievance arbitration and collective bargaining.

***P P ADM 6500 Selected Topics in Public Policy Administration: 3 semester hours***

Prerequisites: Graduate Standing. Permission of instructor may be required. A seminar of selected issues and methods relating to public policy administration. May be repeated for credit, provided the subject matter is different.

***P P ADM 6501 Selected Topics in Nonprofit Management and Leadership: 3 semester hours***

Prerequisites: Graduate standing. Permission of instructor may be required. A seminar of selected issues and methods relating to nonprofit management and leadership. May be repeated for credit, provided the subject matter is different.

***P P ADM 6510 Urban And Regional Planning And Public Policy: 3 semester hours***

Prerequisites: Graduate standing or consent of instructor. This course focuses on the interdependent processes of urbanization and public policy. Students will acquire an understanding of urban planning and public policy processes in North America.

***P P ADM 6550 Strategic And Program Planning For Non Profit Organizations: 3 semester hours***

Same as POL SCI 6490 and SOC WK 6491. Prerequisite: Graduate Standing or Consent of Instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

***P P ADM 6600 Organizational Behavior And Administrative Processes: 3 semester hours***

Same as MGMT 5600. The theoretical and research contribution of the behavioral sciences to management and administration are examined and applied to selected organizational situations. Areas to be considered from the standpoint of both individual and organizational performance are communication, motivation, conflict, decision making, goal setting, leadership, organizational design, climate, development, and control. Utilizing a systems perspective, the course attempts to develop in each student an ability to analyze and solve organizational problems.

***P P ADM 6680 Negotiating Workplace Conflict: 3 semester hours***

Same as MGMT 5612. Prerequisites: P P ADM 6600 / MGMT 5600 and Graduate Standing. Examines conflict and cooperation between individuals, groups and organizations over the control of work. A central theme is how this conflict is expressed, controlled, and resolved. Students will participate in exercises to learn the basics of two-party negotiations.

***P P ADM 6750 Introduction To Evaluation Research Methods: 3 semester hours***

Prerequisites: At least one course in research design and statistics at the graduate level. A comparative study of research strategies with regard to data sources, data collection, and modes of analysis that are appropriate for program evaluation research. Attention is given to observational, survey, and quasi-experimental methodologies.

***P P ADM 6751 Applied Evaluation Project: 3 semester hours***

Prerequisites: P P ADM 6000, P P ADM 6010 or equivalents, P P ADM 6750 or equivalents. Independent study involving an evaluation project with an appropriate public or private or nonprofit agency.

***P P ADM 6800 Management Information Systems: 3 semester hours***

Same as INFSYS 5800 This course provides an overview of the established and contemporary issues related to information systems within organizations. Topics include the practices and tools associated with topics such as the management of IS-based investment projects, the design and implementation of IS, the alignment of IS strategy with organizational strategy, information security and privacy, and gaining a competitive advantage through IS.



***P P ADM 6850 Information Technology and The Public and Nonprofit Sectors: 1 semester hour***

Prerequisite: Graduate Standing. This course addresses information technology in the public sector from a managerial perspective. Course goals include an increase in student's knowledge and understanding of basic hardware, software, data, and information management issues from a managerial perspective. These topics include, but are not limited to: web portal design, geographic information systems, database management, e-government, strategic design, and the use of information technology to address public policy questions.

***P P ADM 6900 Cases In Public Policy Administration: 3 semester hours***

Prerequisites: 24 hours of public policy administration courses, at least 15 of which are in core courses. This capstone course intensively analyzes public policy administration cases drawn from a variety of issues and settings.

***P P ADM 6950 Internship: 3 semester hours***

Independent study involving work with an appropriate public or private or nonprofit agency.

## Music: Practicum

### Courses

***PRACTM 1140 Piano Proficiency I: 1 semester hour***

Prerequisite: Permission of department Group instruction for music majors who do not meet beginning keyboard requirements.

***PRACTM 1150 Piano Proficiency II: 1 semester hour***

Prerequisite: PRACTM 1140 or Consent of Department. Group instruction for music majors who do not meet beginning keyboard requirements.

***PRACTM 1250 Singer's Diction: English, Italian And German: 1 semester hour***

Prerequisites: Music 44 or Music 124 A study of English, Italian and German pronunciation using the International Phonetic Alphabet.

***PRACTM 1260 Singer's Diction: Latin, French, And Spanish: 1 semester hour***

Prerequisites: Music 44 or Music 124 A study of Latin, French, and Spanish pronunciation using the International Phonetic Alphabet.

***PRACTM 1530 Accompanying I: 1 semester hour***

Prerequisite: Consent of department. Accompanying and ensemble practices, including rehearsal techniques, for keyboard majors. Public performance of works studied is required.

***PRACTM 1540 Accompanying II: 1 semester hour***

Prerequisite: Consent of department. A continuation of PRACTM 1530.

***PRACTM 1550 Accompanying III: 1 semester hour***

Prerequisite: Consent of Department. A continuation of PRACTM 1540.

***PRACTM 1570 Piano Performance Class: 2 semester hours***

Prerequisites: Two semesters of AP MUS 1450: Piano. This class allows for additional study of repertoire, giving students greater opportunities to perform and receive critiques from instructor, adjudicators, and peers. Course may be repeated for credit.

***PRACTM 2160 Piano Proficiency III: 1 semester hour***

Prerequisite: PRACTM 1150 or permission of department. Continuation of piano proficiency study.

***PRACTM 2170 Jazz Keyboard Harmony: 1 semester hour***

Prerequisite: Prerequisites: PRACTM 1150 or consent of dept. Group keyboard instruction in the application of chordal structures and harmonic functions commonly used in mainstream jazz performance.

***PRACTM 2180 Piano Proficiency IV: 1 semester hour***

Prerequisite: PRACTM 2160 or consent of department. Continuation of piano proficiency study.

***PRACTM 2190 Piano Jazz: 1 semester hour***

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registrations in Jazz Ensemble (by audition) or Jazz Combo required.

***PRACTM 2191 Brass Jazz: 1 semester hour***

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registration in Jazz Ensemble (by audition) or Jazz Combo required.

***PRACTM 2192 Woodwind Jazz: 1 semester hour***

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registration in Jazz Ensemble (by audition) or Jazz Combo required.

***PRACTM 2193 Rhythm Section Jazz: 1 semester hour***

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registration in Jazz Ensemble (by audition) or Jazz Combo required.

***PRACTM 2510 Conducting I: 2 semester hours***

Prerequisite: THRY COM 2301. Concurrent registration in PRACTM 2610 required for Bachelor of Music in Music Education program. Techniques and problems in conducting.

***PRACTM 2610 Instrumental Literature Laboratory: 1 semester hour***

Prerequisites: THRY COM 2301 and THRY COM 2302 Analysis and evaluation of selected instructional and concert materials for elementary, junior and senior high school groups.

***PRACTM 2611 Elementary School Choral Literature Laboratory: 1 semester hour***

Prerequisites: THRY COM 2301 and THRY COM 2302. Active conducting experience while analyzing and evaluating selected instructional and concert materials for elementary grades.

***PRACTM 3190 Piano Proficiency V: 1 semester hour***

Prerequisite: PRACTM 2180 or consent of department. Continuation of piano proficiency study.

***PRACTM 3280 Score Reading at the Keyboard: 1 semester hour***

Prerequisites: PRACTM 3190, or consent of department. Practical experience in the keyboard realization of figured bass and score reading with emphasis on C-clefs, transposition, and modulation.

***PRACTM 3290 Piano Proficiency VI: 1 semester hour***

Prerequisite: PRACTM 3190 or consent of department. Continuation of piano proficiency study.

***PRACTM 3521 Conducting II - Instrumental: 2 semester hours***

Prerequisite: PRACTM 2510. Advanced study of instrumental conducting and rehearsal techniques, score reading and interpretation.

***PRACTM 3522 Conducting II - Choral: 2 semester hours***

Prerequisite: PRACTM 2510 Concurrent registration in PRACTM 3620 required for Bachelor of Music in Music Education program. Advanced study of choral conducting and rehearsal techniques, score reading and interpretation.

***PRACTM 3621 Junior-Senior High School Choral Literature Laboratory: 1 semester hour***

Prerequisites: THRY COM 2311 and THRY COM 2312 Analysis and evaluation of selected instructional and concert materials for junior and senior high school performance groups.

***PRACTM 3920 Senior Research: 2-4 semester hours***

Prerequisite: Consent of department. Required of all senior music majors. Directed readings and research in an area mutually acceptable to the student and instructor.

***PRACTM 4000 Directed Studies: Variable Topic: 1-5 semester hours***

Prerequisites: Consent of department. Directed independent study of selected topics in music. May be repeated, if topic is substantially different, but no more than 5 hours may be applied toward a degree.

***PRACTM 4100 Senior Project in Theory/Composition: 2-4 semester hours***

Prerequisites: Consent of department. Required of all students in the BM in Theory/Composition program. This project could take any number of forms, dependent upon mutual agreement between student and instructor. For example, a student with a focus in music theory would write a thesis of substantial depth on a theoretical/analytical topic, and a student with a focus in composition would either write a large-scale work (for orchestra, wind ensemble, etc.) or prepare and lead a recital of several of his or her own compositions.

***PRACTM 4920 Internship: 1-3 semester hours***

Prerequisite: Senior standing in B.M. Business emphasis and permission of the instructor. Supervised experience in the area of the student's career objective, as music or instrument merchandising, arts management, mass communication, publishing, manufacturing or other, as available. May be repeated once for credit in different area.

***PRACTM 5020 Choral Literature: 3 semester hours***

Prerequisite: Graduate Standing In Music. Study Of Choral Literature Appropriate For Ensembles From Elementary To Senior High School. Criteria For Evaluating Choral Literature Will Be Developed And Pedagogical Implications Of Choral Music As A Means Of Developing Comprehensive Musicianship Will Be Discussed.

***PRACTM 5035 Instrumental Literature: 3 semester hours***

Prerequisite: Graduate standing in Music Study of literature appropriate for soloists and ensembles for elementary to senior high school band, orchestra, and jazz ensemble. Criteria for evaluating the literature will be developed and related technical problems will be studied.

***PRACTM 5210 Graduate Conducting: 3 semester hours***

Prerequisites: Graduate standing in music Conducting techniques, score reading, and interpretation of choral, orchestral, and band literature.

## Courses

***PRACTM 1140 Piano Proficiency I: 1 semester hour***

Prerequisite: Permission of department Group instruction for music majors who do not meet beginning keyboard requirements.

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Prerequisite: PRACTM 1140 or Consent of Department. Group instruction for music majors who do not meet beginning keyboard requirements.

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Prerequisite: PRACTM 1150 or permission of department. Continuation of piano proficiency study.

***PRACTM 2170 Jazz Keyboard Harmony: 1 semester hour***

Prerequisites: Prerequisites: PRACTM 1150 or consent of dept. Group keyboard instruction in the application of chordal structures and harmonic functions commonly used in mainstream jazz performance.

***PRACTM 2180 Piano Proficiency IV: 1 semester hour***

Prerequisite: PRACTM 2160 or consent of department. Continuation of piano proficiency study.

***PRACTM 2190 Piano Jazz: 1 semester hour***

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registrations in Jazz Ensemble (by audition) or Jazz Combo required.

***PRACTM 2191 Brass Jazz: 1 semester hour***

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registration in Jazz Ensemble (by audition) or Jazz Combo required.

***PRACTM 2192 Woodwind Jazz: 1 semester hour***

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registration in Jazz Ensemble (by audition) or Jazz Combo required.

***PRACTM 2193 Rhythm Section Jazz: 1 semester hour***

Prerequisites: By audition and consent of department. Class lessons emphasizing improvisation and jazz styles. Applicable to the minor in jazz studies only. May be repeated for credit. Concurrent registration in Jazz Ensemble (by audition) or Jazz Combo required.

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Prerequisite: PRACTM 2510. Advanced study of instrumental conducting and rehearsal techniques, score reading and interpretation.

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Prerequisite: PRACTM 2510 Concurrent registration in PRACTM 3620 required for Bachelor of Music in Music Education program. Advanced study of choral conducting and rehearsal techniques, score reading and interpretation.

**PRACTM 3621 Junior-Senior High School Choral Literature Laboratory: 1 semester hour**

Prerequisites: THRY COM 2311 and THRY COM 2312 Analysis and evaluation of selected instructional and concert materials for junior and senior high school performance groups.

**PRACTM 3920 Senior Research: 2-4 semester hours**

Prerequisite: Consent of department. Required of all senior music majors. Directed readings and research in an area mutually acceptable to the student and instructor.

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**PRACTM 5210 Graduate Conducting: 3 semester hours**

Prerequisites: Graduate standing in music Conducting techniques, score reading, and interpretation of choral, orchestral, and band literature.

## Psychology

### Courses

**PSYCH 1000 Choosing A Career In Psychology: 1 semester hour**

Prerequisite: Psychology Major or consent of instructor. This course is an orientation to the field of psychology for majors and for students who are considering declaring the major. This course is to be completed by native and transfer Psychology majors during their first semester of study at UMSL. Students will be engaged in activities that will help them to develop and identify their professional goals, learn about the various specialties and careers available within the field of psychology, understand the education and skills necessary for various careers, learn the requirements for a psychology major, become familiar with minors that are available at UMSL, think about a possible choice of minor or certificate, and become acquainted with the interest areas of UMSL faculty in Psychology and related fields. All Psychology majors must complete this course during the first semester at UMSL with a grade of C- or higher.

**PSYCH 1003 General Psychology: 3 semester hours**

A survey of the basic concepts, theories, and pivotal findings over the past 100 years in the science of Psychology, with special emphasis on contemporary concepts and findings that focus on the relation of the brain to normal and pathological behaviors. All Psychology majors must complete this course with a grade of C- or higher.

**PSYCH 1268 Human Growth And Development: 3 semester hours**

Prerequisites: PSYCH 1003. A survey course, designed for non-majors. This course examines development over the lifespan with an emphasis on the developmental tasks and hazards of each age period. Majors in Psychology and students planning to pursue a career in psychology research, teaching, or practice are strongly encouraged to take PSYCH 2270 instead of this course.

**PSYCH 2160 Social Psychology: 3 semester hours**

Same as SOC 2160. Prerequisite: PSYCH 1003 or SOC 1010. This course examines the behavior, thoughts, and feelings of individuals in their social environments. The content focuses not only on how people relate to one another, but also on the processes affecting their interactions with others. Specific topics include the self, social judgments, attitudes and persuasion, helping behavior, prejudice, aggression, attraction, conformity and obedience, and group processes. All Psychology majors taking this course instead of PSYCH 2270 must complete it with a grade of C- or higher.



**PSYCH 2200 Drugs And Behavior: 3 semester hours**

Prerequisite: PSYCH 1003. The course is an introduction to psychopharmacology and the relationship among drugs, and how these impact the brain and behavior. The emphasis is on physiological mechanisms underlying the behavioral responses to psychotherapeutic substances, illicit psychoactive drugs, commonly used substances (alcohol, nicotine, caffeine), and drug-like substances produced naturally in the body.

**PSYCH 2201 Psychological Statistics: 4 semester hours**

Prerequisites: PSYCH 1003 and satisfaction of the University's mathematical skills requirement. (With Laboratory) This course serves as an introduction to statistical concepts and methods used in Psychological measurement and the analysis and interpretation of social sciences data. Topics include descriptive statistics, frequency distributions centrality, variability, and correlational measures; as well as an introduction to statistical inference, sampling fundamentals, significance testing and effect size, t-test, and analysis of variance. All Psychology majors must complete this course with a grade of C- or higher before registering for PSYCH 2219.

**PSYCH 2205 Human Sexuality: Psychological Perspectives: 3 semester hours**

Prerequisites: PSYCH 1003. This course is a comprehensive overview of human sexuality from the standpoint of the behavioral science of Psychology. This course includes a study of sexual anatomy and physiology, intersex classifications, sex and gender differences, sexual orientation, interpersonal and interpersonal aspects of human sexuality, classification and treatment of sexual dysfunction and sexual disorders, sexual victimization, and the methods employed for the scientific examination of human sexual behavior.

**PSYCH 2211 Introduction To Biological Psychology: 3 semester hours**

Prerequisites: PSYCH 1003 and 3 hours of BIOL chosen from either BIOL 1012, or BIOL 1102, or BIOL 1831. Students with career goals that include graduate study in Psychology are urged to complete the BIOL 1831 prerequisite for this course. This course introduces psychology students to behavioral neuroscience and neuropsychology. Course topics include basic neuroanatomy and neurophysiology, neurodevelopment, sensory and motor systems, and the integration of subcortical and cortical networks. All are covered with an emphasis on behavioral outcomes of normal and pathological functioning of the brain. All psychology majors must complete this course with a grade of C- or higher.

**PSYCH 2219 Research Methods: 3 semester hours**

Prerequisite: Completion of PSYCH 2201 with a final grade of C- or higher is required prior to enrolling in this course. This course is a comprehensive overview of research methods in the social sciences. Topics include technical scientific writing in current APA format, critical evaluation of research literature, the application of statistical methods, and mastery of the ethical principles guiding social sciences research. Course and laboratory work involve designing and evaluating research questions, formulating research hypotheses, designing and conducting original research studies, and presenting research results. All psychology majors must complete this course with a grade of C- or higher.

**PSYCH 2222 Group Processes In Organizations: 3 semester hours**

Prerequisite: PSYCH 1003 or MGMT 3600. Topics Include Theory, Research And Practice In Coordination, Conflict And Decision-Making In Groups And Organizations, As Well As The Role Of Influence, Power, And Leadership Effectiveness In Understanding Interpersonal And Group Relations.

**PSYCH 2230 Psychology Of Gender: 3 semester hours**

Same as GS 2230. Prerequisite: PSYCH 1003. Evaluation of psychological theories and research regarding physiological, cognitive, and personality gender differences and similarities, gender related problems in adjustment, and gender specific clinical interventions.

**PSYCH 2232 Psychology Of Trauma: 3 semester hours**

Same as GS 2232. Prerequisites: PSYCH 1003. This course is designed to review the psychological effects of crime, violence, war, natural disasters, and other traumas. Particular attention is paid to the development of specific psychopathology and other negative consequences of traumatic events. The process of recovery from distress following psychological events is further emphasized. The role of gender and its relationship to victimization and the development of psychopathology and recovery are considered throughout the course.

**PSYCH 2245 Abnormal Psychology: 3 semester hours**

Prerequisite: PSYCH 1003. This course examines the historical views and current perspectives on the possible antecedents, symptoms, and treatments of major psychological disorders, including anxiety, dissociative, mood, somatoform, eating, schizophrenia and substance-related disorders. Major diagnostic categories and criteria, individual and social factors of maladaptive behavior, methods of clinical assessment, research strategies, and types of therapy will also be covered. All psychology majors must complete this course with a grade of C- or higher.

**PSYCH 2270 Developmental Psychology: Infancy, Childhood And Adolescence: 3 semester hours**

Prerequisites: PSYCH 1003. This course systematically examines theories and research concerning the physical, social, emotional, and cognitive development of children from conception through adolescence. It will provide students with a basic knowledge of infant, child, and adolescent development; its subject matter; its approaches to gathering and evaluating evidence about the causes of behavior; and the ways in which our knowledge is applied to enhance the development and the quality of life of children. It is intended for Psychology majors and students with career interests in research, education, and/or the treatment of children. All Psychology majors taking this course instead of PSYCH 2160, must complete it with a grade of C- or higher.

**PSYCH 2272 Developmental Psychology: Adulthood And Aging: 3 semester hours**

Same as GERON 2272. Prerequisite: PSYCH 1003. Personality, social, and physiological development from the onset of early adulthood through maturity and old age.

**PSYCH 2280 Psychology Of Death And Dying: 3 semester hours**

Same as GERON 2280. Prerequisites: PSYCH 1003. A beginning exploration of end-of-life issues integrating the scholarly, social, and individual dimensions of death and dying. This course provides a solid grounding in theory and research, as well as practical application to students' lives.

**PSYCH 2285 American Culture and Minority Mental Health: 3 semester hours**

Prerequisites: PSYCH 1003. Provides an examination of the relationship between American culture and mental health. The focus is on the lives of American minority groups, with specific attention given to how racism, prejudice, and minority status currently reveal themselves within a mental health framework. An eclectic, multidisciplinary approach that draws from clinical and social psychology will be utilized.



**PSYCH 3205 Evolutionary Psychology: 3 semester hours**

Prerequisites: PSYCH 2211. Evolutionary Psychology refers to a fundamentally unique approach to studying and thinking about human and animal behavior through considerations of 1. The challenges and stressors encountered in ancestral environments, 2. The proximate physical, psychological, and anatomical methods that evolved to meet these adaptive problems, and 3. How adaptive or maladaptive these mechanisms are in current environments. Special emphasis will be placed on the evolution of brain structures, cognitive processes, and social behaviors. The content for this course is not new; Evolutionary Psychology involves looking at the science of Psychology through a unique lens, shaped by its tenets. Although appreciation for this approach to psychological research is increasing, it remains controversial in psychology circles. We will discuss the state of this aspect of Psychology as well.

**PSYCH 3256 Environmental Psychology: 3 semester hours**

Prerequisites: PSYCH 2160 or SOC 2160 Analysis of environmental influences on behavior and man's influence, in turn, on the environment. Topics will include a consideration of both individual processes relating to the environment (such as the perception, evaluation, and adaptation to the environment) and social processes relating to the environment (such as privacy, territoriality, and crowding).

**PSYCH 3290 Traumatic Stress in Childhood and Adolescence: 3 semester hours**

Same as CAST 3290. Prerequisites: PSYCH 2270 (majors), PSYCH 1268, or approval from the instructor. Exploration of the impact of stressors experienced during infancy, childhood and adolescence. Integrates how theoretical frameworks, cultural considerations and policy implications apply to child development research and practice.

**PSYCH 3316 Fundamentals Of Leadership: 3 semester hours**

Prerequisites: PSYCH 1003 and six additional hours of Psychology, or consent of instructor. This course addresses concepts and methods for developing leadership skills in work and everyday settings. Contemporary approaches to leadership development are reviewed in relation to psychological and organizational theory. This course is designed to be relevant to the wide range of leadership opportunities that arise in work and daily life. Experiential exercises are used to help students discover and develop new leadership skills.

**PSYCH 3318 Industrial And Organizational Psychology: 3 semester hours**

Same as MGMT 3623. Prerequisite: PSYCH 2201 or MGMT 3600. This course introduces the student to psychological research and theories pertaining to human behavior in the work setting. Topics covered include: selection, performance appraisal, training, leadership, motivation, job satisfaction, and organizational design.

**PSYCH 3340 Clinical Problems Of Childhood: 3 semester hours**

Prerequisite: PSYCH 1003 and six additional hours of Psychology, or consent of instructor. This course will address the clinical disorders and difficulties of children, as well as the causes and the treatment of these disorders. Topics addressed include autism, childhood schizophrenia, conduct disorders, learning disabilities, ADHD, mood disorders, health-related disorders, anxiety disorders, and child maltreatment. Treatments designed for specific use with children, including behavioral, drug and community mental health approaches will be addressed. This course is recommended for those going on to graduate work in psychology.

**PSYCH 3346 Introduction To Clinical Psychology: 3 semester hours**

Prerequisite: PSYCH 1003, PSYCH 2245; and three additional hours of Psychology. This course provides a conceptual framework for research, description and understanding of clinical phenomena. Assessment, interviewing, the clinical use of tests and psychological approaches to treatment are also addressed.

**PSYCH 3390 Directed Studies: 1-6 semester hours**

Prerequisite: Consent of instructor Directed reading and research. May be repeated for a maximum total of ten hours.

**PSYCH 3400 Conceptual and Historical Foundations of Psychology: 3 semester hours**

Prerequisite: PSYCH 1003 and three additional hours of Psychology. This course addresses basic questions about human life debated throughout the history of the West that are present in contemporary Psychology. These include the relation between mind and body, how we know about the world, the nature of morality, and how we think and feel. Greek and Judeo-Christian traditions, and science and religion, have provided distinct, fundamental approaches to how these questions have been asked and answered. This course examines these and related historical, conceptual, and theoretical foundations underlying contemporary Psychology.

**PSYCH 3500 Health Psychology: 3 semester hours**

Prerequisite: PSYCH 1003 and three additional hours of Psychology. Health Psychology involves the discipline and principles of psychology and behavior in understanding how the mind, body, and behavior interact in health and disease. Class topics include theoretical foundations of health and illness, health promotion and primary prevention of illness, health enhancing and health damaging behaviors, psychosomatic illness, stress and coping, pain management, and a variety of specific behavior-related medical illnesses (e.g., heart disease, eating disorders, cancer, AIDS).

**PSYCH 3820 Cross-Cultural Psychology: 3 semester hours**

Prerequisites: PSYCH 1003 and 9 hours of Psychology The purpose of this course is to present students with a broad theoretical and applied overview of cross-cultural psychology. To this end, the course presents an orientation to the definitions, concepts, theories, and methodologies of crosscultural psychology. Included is an examination of cultural and ecological factors and their influences on perceptual and cognitive processes, personality, language, and other psychological variables.

**PSYCH 4300 Introduction To Psychopharmacology: Drugs And Mental Illness: 3 semester hours**

Prerequisites: PSYCH 1003, PSYCH 2211 or PSYCH 2200; PSYCH 2245. The course is designed to provide an introduction to drugs used to treat anxiety disorders, major depression, schizophrenia, and other psychopathologies. The emphasis will be on understanding neural mechanisms related to psychological disorders and to the effectiveness of current drug treatments.

**PSYCH 4305 Developmental Psychology: Cognitive Development of Children: 3 semester hours**

Prerequisites: PSYCH 1003, PSYCH 2270, and Junior standing, or consent of instructor. Data and theory concerned with how children's thinking changes over time. Discussion will include domain-general versus domain-specific theories, social and cultural influences on cognition, gains in memory, attention, problem solving, and metacognition, conceptual development, children's naive theories, schooling, and various definitions and measures of intelligence.

**PSYCH 4311 Psychology Of Nonverbal Behavior: 3 semester hours**

Prerequisite: PSYCH 2160 or PSYCH 2160. This course examines the psychological perspective on the role of nonverbal behavior in social settings. Primary concerns of the course will include an analysis of the functions of nonverbal behavior (e.g., providing information, regulating interaction, expressing intimacy, exercising influence, and managing impressions), factors influencing nonverbal expression (e.g., culture, personality, relationships), and various theoretical views on nonverbal communication. Applications to various problems and settings in everyday life will also be pursued.

**PSYCH 4314 Behavioral Neuroscience: 3 semester hours**

Prerequisites: 9 hours of Psych and/or Biology: PSYCH 2211 is recommended but not required. A neuroscience course focusing on behavioral outcomes of brain function and dysfunction. Emphasis will be on modern research methods with animal models and humans. Topics discussed will include the classic findings in the field, but the emphasis will be on recent findings from human neuropsychology, neuroimaging, cognitive neuroscience, neuropharmacology, and neuroendocrinology.

**PSYCH 4316 Developmental Psychology: Social Development of Children and Adolescents: 3 semester hours**

Prerequisites: PSYCH 1003, PSYCH 2270, and Junior standing, or consent of instructor. This course examines data and theory concerned with social behavior in infants, preschoolers, and school-aged children. Discussion will include emotional regulation; measurement and nature of temperament; the formation and maintenance of attachment relationships; sex-role development; and theories of aggression and the effects of socializing agents such as family, peers, media, and culture on development.

**PSYCH 4330 Hormones, The Brain And Behavior: 3 semester hours**

Prerequisites: 9 hours of Psychology or Biology, including at least one of the following: PSYCH 2200, PSYCH 2211, or PSYCH 4300 or permission of instructor. This course may be taken for graduate credit with permission of the instructor. Historically, hormones have been studied for their role in reproduction, including reproductive physiology and sexual behaviors. It is now clear, however, that the endocrine system actively interacts with brain regions unrelated to reproduction with the result that sex hormones and neuropeptide hormones influence a wide range of behaviors including mood, anxiety, stress responses, cognition, memory, violence, attachment, aging, weight control and athletic prowess. Emphasis of the class is on hormonal contribution both to reproductive and non-reproductive behaviors with special attention paid to gender behavioral differences.

**PSYCH 4349 Human Learning And Memory: 3 semester hours**

Prerequisite: Nine hours of psychology or consent of instructor. This course is an introduction to classic and contemporary theories, methodologies, and theoretical perspectives used in the fields of learning and memory. The course will explore the various divisions of memory along with processes involved in the acquisition, retention, and retrieval of information. Some of the specific topics include infantile amnesia, false memory, flashbulb memories, and photographic memory. The course will explore various theories of learning as well as optimal conditions for the long-term retention of information.

**PSYCH 4356 Cognitive Processes: 3 semester hours**

Prerequisite: Nine hours of psychology or consent of instructor. This course is an overview of the major topics in cognitive psychology, including perception, visual imagery, attention, memory, knowledge representation and retrieval, language, problem solving, reasoning, judgment, decision making, and intelligence.

**PSYCH 4365 Psychological Tests And Measurements: 3 semester hours**

Prerequisites: Grade of C- or above in PSYCH 2201 and PSYCH 2219, or consent of instructor. This course is a survey of the basic principles, research, and theories on testing and measurement of psychological constructs. Students will critically examine several professionally developed tests and learn about the administration, interpretation, and psychometric qualities of each.

**PSYCH 4374 Introduction To Clinical Neuropsychology: 3 semester hours**

Prerequisites: Nine hours of Psychology. An introduction to current theory and practice of clinical neuropsychology with a focus on neuropsychological findings concerning relationships between the brain and behavior. Particular attention is devoted to function, neuroanatomy, neurological syndromes, patterns of brain impairment associated with various medical diseases, and methods of neuropsychological assessment and intervention.

**PSYCH 4376 Mental Health And Aging: 3 semester hours**

Same GERON 4376 and SOC WK 4376. Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) This course provides a survey of theory and research in mental health issues for older populations, focusing on psychological and social aspects of mental health and impairment. The course details approaches to understanding prevalence, etiology, assessment, and treatment of the psychological disorders most commonly experienced by older adults, including anxiety, depression, delirium, and dementia, among others.

**PSYCH 4392 Selected Topics In Psychology: 1-3 semester hours**

Prerequisite: Twelve hours of psychology and consent of instructor. A seminar of selected issues and methods in psychology. May be repeated once for credit.

**PSYCH 4398 Child Maltreatment: A Multidisciplinary Approach: 3 semester hours**

Same as SOC WK 4398 and CAST 4398. Focuses on clinical aspects of child abuse with attention to identification, reporting, intervention and prevention. Perspectives from the disciplines of psychology and social work are provided.

**PSYCH 4698 Internship in Child Advocacy Studies: 3 semester hours**

Same as CAST 4698. Prerequisites: PSYCH 4398, completion of or concurrent enrollment in PSYCH 4498 and PSYCH 4598, and approval from the CAST director. Internship under CAST staff supervision in child or youth-serving setting. Monthly seminar participation required. Approval from the CAST director is required prior to enrolling.

**PSYCH 4999 Integrated Psychology: 2 semester hours**

Prerequisites: This course is restricted to Psychology majors and must be taken during majors' final semester of study. This capstone course serves as a review of the primary sub-fields of psychology. An advanced general psychology textbook will guide the class through important contemporary topics in behavioral neuroscience, learning and memory, cognition, psychopathologies and their treatments, and developmental and social psychology. The Major Field Aptitude Test in Psychology will serve as the final exam for the course. All Psychology majors must complete this course with a grade of C- or higher.

**PSYCH 5001 Neuropsychological Assessment: 3 semester hours**

Prerequisites: Admission to Psychology graduate program, or consent of instructor. This graduate level course will review neuroanatomical systems that mediate primary cognitive networks and methods of assessments and interpretation of data. The course will also review common neurological and psychiatric conditions that result in neuropsychological compromise.

**PSYCH 5340 Human Neuroanatomy: 3 semester hours**

Prerequisites: Admission to graduate program in psychology or consent of instructor. This course provides an overview of brain anatomy for graduate students in psychology and related disciplines. It explores the structure and function of the human nervous system both in health and disease. The course will cover core concepts from cellular neuroscience, neuroimaging and neuroanatomical techniques, sensory and motor systems, and the anatomical basis of cognitive functions.

**PSYCH 5400 Seminar: Special Topics in Behavioral Neuroscience: 1 semester hour**

Prerequisites: Admission to the graduate program in behavioral neuroscience or consent of the instructor. A seminar of selected contemporary topics in behavioral neuroscience. The class will meet weekly to discuss a journal article in the field with special focus on the methodologies used in neuroscience research. May be repeated for a total of 3 credit hours, provided the subject matter is different.

**PSYCH 5407 Psychopharmacology: 3 semester hours**

Prerequisite: 12 units of graduate-level. An examination of the effects of drugs on the brain and on behavior. Primary emphasis is on those drugs used in the treatment of affective disorders, schizophrenia and anxiety.

**PSYCH 5465 Seminar: Behavioral Neuroscience: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Behavioral neuroscience is the study of the relation of the brain to behavior. The field has emerged as the new face of psychology; there are few subfields in psychology that have not been influenced by findings from animal labs, and from human studies employing physiological recordings, neuroimaging and psychotherapeutic drugs. This course will serve as an introduction for graduate students in psychology of brain morphology and function with an emphasis on normal and pathological behaviors.

**PSYCH 5468 Seminar: Cognitive Processes: 3 semester hours**

Prerequisites: Admission to the Graduate Program in Psychology or consent of instructor. This course is an introduction to classic and contemporary theories, methodologies, and theoretical perspectives used in the field of cognitive psychology. The emphasis is on basic research in the field of cognitive psychology but some applications of these experiments are discussed as well. The class will read and discuss chapters from cognitive psychology textbooks as well as classic and contemporary empirical journal articles in cognitive Psychology.

**PSYCH 5610 Mechanisms Of Aging I: The Aging Body: 1 semester hour**

Same as SOC WK 5610 and GERON 5610. Prerequisites: Graduate standing and BIOL 1102 or equivalent. (MSW students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social sciences/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

**PSYCH 5611 Mechanisms Of Aging II: The Aging Brain: 1 semester hour**

Same as SOC WK 5611 and GERON 5611. Prerequisites: GERON 5610 or SOC WK 5610 or PSYCH 5610 or equivalent or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

**PSYCH 5612 Mechanisms Of Aging III: Diseases Of Aging: 1 semester hour**

Same as SOC WK 5612 and GERON 5612. Prerequisites: GERON 5610 and GERON 5611, or SOC WK 5610 and SOC WK 5611, or PSYCH 5610 and PSYCH 5611 or equivalent or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course). Provides students with a social sciences/humanities background with the information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.

**PSYCH 6415 Seminar in Health Psychology & Behavioral Medicine: 3 semester hours**

Prerequisites: Consent of instructor. This course analyzes research, theory, and clinical applications in the interrelationships of behavior, psychological states, physical health and disease. Discussion includes theoretical foundations of health and illness, biopsychosocial factors affecting health and illness, diagnostic issues, prevention, Interdisciplinary treatment applications, health and public policy, and research issues. Critical evaluation of theory and empirical support for clinical applications will be discussed.

**PSYCH 6441 Aging And Health Behavior: 3 semester hours**

Same as GERON 6441. Prerequisite: Graduate standing. This course examines sociocultural influences on health care practices of older adults. The role of social support and other social resources in the health behavior of older adults is emphasized. Topics include self care decisions, formal service utilization, family caregiving, and planned interventions for older adults.

**PSYCH 6448 Multicultural Issues In Clinical Psychology: 3 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. A survey of theoretical perspectives utilized in the treatment of various cultural groups. Their relationship to and implications for the treatment of members of various cultural groups will be explored. Strategies and ethical concerns in diagnosis, test interpretation, and treatment are considered.

**PSYCH 6466 Seminar: Developmental Psychology: 1-3 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. A critical examination of contemporary problems in developmental psychology.

**PSYCH 7403 Psychopathology: 3 semester hours**

Prerequisite: Admission To Clinical Psychology Program Or Permission Of Instructor. A Critical Examination Of The Clinical-Experimental Literature In Psychopathology. Etiologies Of Cognitive/Affective Functions And Dysfunctions Are Explored, And Implications For Therapeutic Interventions Are Considered.

**PSYCH 7404 Introduction To Clinical Assessment I: 4 semester hours**

Prerequisites: Admission to Clinical Psychology program. Fundamentals of clinical assessment with emphasis on interviewing and the measurement of cognitive functioning. This course includes a laboratory.

**PSYCH 7405 History And Systems In Psychology: 3 semester hours**

Prerequisites: Admission to Clinical Psychology program or consent of instructor. A comprehensive overview of the history of psychology with emphasis on the systems of thought that have shaped contemporary psychological theory and research.



**PSYCH 7406 Introduction To Clinical Assessment II: 4 semester hours**

Prerequisites: PSYCH 7404. This course addresses theory and techniques of personality assessment including clinical interviewing, objective and projective assessment, and integrative report writing.

**PSYCH 7410 Women And Mental Health: 3 semester hours**

Same as GS 6410. Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. This course will focus on contemporary research on the psychology of women pertaining to mental health issues. Etiology and treatment of disorders disproportionately affecting women will be emphasized.

**PSYCH 7412 Social Psychology: 3 semester hours**

Prerequisites: Admittance to psychology doctoral program or consent of instructor. A review of key areas in contemporary theory and research in social psychology.

**PSYCH 7419 Existential Issues In Clinical Psychology: 3 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. This course will review existential thought in psychology and its application to understanding clinical problems and treatment. Particular attention will be given to how psychotherapy can be understood within an existential framework that focuses on the issues of death, freedom, responsibility, and isolation.

**PSYCH 7421 Quantitative Methods I: 4 semester hours**

Prerequisites: Admission to the Graduate Program in Psychology or consent of instructor. A comprehensive study of univariate statistical concepts and analyses used in psychological research. Topics include descriptive statistics, normal distributions, z, t, F, chi-square statistics, and distributions. Correlation, simple and multiple regression, factorial and repeated measures analysis of variance, significance testing and effect size are also examined.

**PSYCH 7422 Quantitative Methods II: 4 semester hours**

Prerequisites: PSYCH 7421 and consent of instructor (With laboratory) A comprehensive study of the use of multivariate statistics in data analysis. Topics include the general linear model, multiple regression, factor analysis, and multivariate analysis of variance.

**PSYCH 7423 Quantitative Methods III: 3 semester hours**

Prerequisites: PSYCH 7422 and PSYCH 7429 and consent of instructor. A selective study of the use of multivariate statistics in data analysis. Topics include structural equation modeling, multilevel modeling, and analysis of longitudinal data.

**PSYCH 7429 Psychometric Theory: 3 semester hours**

Prerequisites: PSYCH 7421, PSYCH 7422 and consent of instructor A consideration of classical and modern theories of psychological testing. Topics include test reliability, validity and construction.

**PSYCH 7430 Introduction To Clinical Skills: 1 semester hour**

Prerequisites: Admission to doctoral program in clinical psychology. An introduction to processes and procedures involved in psychotherapy.

**PSYCH 7431 Clinical Supervision: 1-3 semester hours**

Prerequisite: Admission to Clinical Psychology Program. Supervised experience in clinical practice. May be repeated six times for credit.

**PSYCH 7432 Ethics And Professional Issues: 3 semester hours**

Prerequisites: Admission to Clinical Psychology program. A study of issues in professional development, clinical supervision, risk management, and ethical standards as they relate to teaching, research, and professional practice.

**PSYCH 7433 Clerkship in Clinical Psychology: 1 semester hour**

Prerequisites: Admission to the doctoral program in Clinical Psychology. Supervised training in an affiliated agency or organization following completion of two years of course work. (May be repeated 3 times).

**PSYCH 7434 Introduction to Clinical Interventions: 3 semester hours**

Prerequisites: Admittance to Clinical Psychology program and PSYCH 7406. This course focuses on conceptual and methodological issues that are central to the development, evaluation and application of interventions in clinical psychology. Topics include efficacy and effectiveness research, introduction to theories of behavior change, and applications with specific populations.

**PSYCH 7439 Summer Supervision: 1 semester hour**

Prerequisites: PSYCH 7431 Supervised experience in clinical practice at all graduate year levels during the summer months. Can be repeated for credit.

**PSYCH 7442 Seminar: Cognitive And Behavioral Interventions: 3 semester hours**

Prerequisites: PSYCH 7434 This course focuses on the theory and practice of cognitive-behavioral interventions in the field of clinical psychology.

**PSYCH 7447 Trauma And Recovery: 3 semester hours**

Prerequisites: Graduate Trauma Studies Certificate A comprehensive seminar on the psychological effects associated with exposure to potentially traumatic events. The course will include information on the history of trauma studies; definitions of stressful and traumatic events; common responses to these events; theoretical models for conceptualizing traumatic responses; information on specific types of traumatic events; and issues in treatment.

**PSYCH 7449 Research Methods and Project Development In Applied Psychology: 1-3 semester hours**

Prerequisite: Admission to the Graduate Program in Psychology or consent of instructor. This course focuses on the basics of conducting research in Industrial-Organizational Psychology. Topics include: philosophy of science; reliability and validity; experimental, quasi-experimental, and non-experimental designs; power; meta-analysis; survey/item analyses; and cross-cultural methods. In addition, the course includes group supervision of initial research that leads to thesis or dissertation proposals. Can be taken up to three times for a total of 6 credit hours.

**PSYCH 7450 Clinical Internship I: 1-9 semester hours**

Prerequisite: Consent of advisor. Formal, one year, full-time internship providing student with in-depth supervised training within a site approved by the American Psychological Association. This course is repeated in the fall and spring semesters of the internship year.

**PSYCH 7451 Clinical Internship II: 1-9 semester hours**

Prerequisite: PSYCH 7450 and consent of advisor. Formal, one-year, full-time internship providing student with in-depth supervised training within a site approved by the American Psychological Association. (Taken in the final summer of the internship).

**PSYCH 7454 Seminar: Personnel Psychology: 3 semester hours**

An analysis of theories and research in personnel and industrial psychology. Topics include testing, assessment centers, performance appraisal, and interviewing.

**PSYCH 7455 Seminar: Organizational Psychology: 3 semester hours**

An analysis of theories and research in organizational psychology. Topics include theories of motivation, leadership, job design, group process decision-making, organizational effectiveness, and the relation between organizations and their environment.



**PSYCH 7457 Seminar: Special Topics In Industrial Psychology: 3 semester hours**

A seminar of selected issues and methods in personnel psychology.

**PSYCH 7458 Seminar: Special Topics In Organizational Psychology: 3 semester hours**

A seminar of selected issues and methods in organizational psychology.

**PSYCH 7459 Practicum In Industrial/Organizational Psychology: 1-4 semester hours**

Supervised experience in personnel or human resource management.

**PSYCH 7461 Summer Research in I/O Psychology: 1 semester hour**

Prerequisites: Admission to I/O program. Supervised experience on research topics in I/O psychology at all graduate year levels during the summer months. Can be repeated for credit.

**PSYCH 7464 Field Experiences in Industrial-Organizational Psychology: 3 semester hours**

Prerequisites: PSYCH 7454 and PSYCH 7455 or consent of instructor.

The course focuses on the innovative application of psychological theory and principles to solving some pressing human resources issues, including actual organizational projects. Through readings, discussions and projects, students obtain hands-on experience with applied psychological issues, striking the needed balance between the theoretical and applied components of Industrial-Organizational psychology.

**PSYCH 7465 Applied Issues In Organizational Psychology: 3 semester hours**

Prerequisites: PSYCH 7455 or consent of instructor course focuses on the application of psychological theory and principles to organizational development consulting. While such consulting is ultimately intended to enhance organizational level functioning, applications of this approach begin with learning at the individual and small group levels. In this course, students work through real-world cases that address real organizational problems. In addition to this casework, the readings and class discussions will address the theoretical and practical links between individual/team learning and organizational development.

**PSYCH 7466 Seminar Series in Industrial/Organizational Psychology: 1 semester hour**

Prerequisites: Open only to students in the I/O Psychology Graduate Program. A seminar series involving speakers, presentations, and discussions focusing on applied and theoretical perspectives, techniques, and research in the field of Industrial/Organizational Psychology. May be taken up to 6 times for credit.

**PSYCH 7469 I/O Professional Issues And Ethics: 3 semester hours**

Prerequisite: Consent of Instructor In this course students learn the ethical standards as they relate to teaching, research and professional practice in industrial organizational psychology. Other professional and career issues are also discussed.

**PSYCH 7472 Special Topics In Psychology: 1-3 semester hours****PSYCH 7474 Clinical Research In Applied Settings: 3 semester hours**

Prerequisites: PSYCH 7421 and PSYCH 7422 This course provides information on the design and implementation of research in applied settings (e.g., human service agencies). Topics include program evaluation, consultation models, risk factor analysis, presentation and health promotion, and quality control.

**PSYCH 7476 Seminar In Developmental Psychopathology: 2 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. Introduction to principles, theory, and methods of study in the field of clinical child psychology. Emotional and behavioral dysfunctions are considered from developmental and socialization perspectives.

**PSYCH 7477 Clinical Intervention with Children and Families: 3 semester hours**

Prerequisite: PSYCH 7434 and PSYCH 7476. This course provides an overview of the theory and practice of clinical interventions with children, adolescents, and families.

**PSYCH 7478 Directed Research In Industrial/Organizational Psychology: 1-4 semester hours**

Independent study of an issue in industrial/organizational psychology through the application of research techniques.

**PSYCH 7479 Directed Readings In Industrial/Organizational Psychology: 1-4 semester hours**

Independent literature review of a topic in industrial/organizational psychology.

**PSYCH 7483 Directed Research: 1-10 semester hours****PSYCH 7484 Directed Readings: 1-10 semester hours****PSYCH 7485 Research Team I: 2 semester hours**

Group supervision of beginning research leading to the Independent Research Project.

**PSYCH 7486 Research Team II: 2 semester hours**

Prerequisites: Completion of Independent Research Project or third year standing in doctoral program in clinical psychology. Group supervision of advanced research related to dissertation proposal and program's comprehensive examination required for doctoral candidacy.

**PSYCH 7487 Thesis Research Project: 1 semester hour**

Prerequisites: Admission to the doctoral program in clinical psychology. Supervised original research project of a clinically-related topic.

**PSYCH 7488 Specialty Examination Research: 1-6 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology. Supervised original review and analysis of a clinicallyrelated topic.

**PSYCH 7491 MA Thesis Research: 1-10 semester hours****PSYCH 7492 Ph D Thesis Research: 1-10 semester hours****Courses****PSYCH 1000 Choosing A Career In Psychology: 1 semester hour**

Prerequisite: Psychology Major or consent of instructor. This course is an orientation to the field of psychology for majors and for students who are considering declaring the major. This course is to be completed by native and transfer Psychology majors during their first semester of study at UMSL. Students will be engaged in activities that will help them to develop and identify their professional goals, learn about the various specialties and careers available within the field of psychology, understand the education and skills necessary for various careers, learn the requirements for a psychology major, become familiar with minors that are available at UMSL, think about a possible choice of minor or certificate, and become acquainted with the interest areas of UMSL faculty in Psychology and related fields. All Psychology majors must complete this course during the first semester at UMSL with a grade of C- or higher.

**PSYCH 1003 General Psychology: 3 semester hours**

A survey of the basic concepts, theories, and pivotal findings over the past 100 years in the science of Psychology, with special emphasis on contemporary concepts and findings that focus on the relation of the brain to normal and pathological behaviors. All Psychology majors must complete this course with a grade of C- or higher.

**PSYCH 1268 Human Growth And Development: 3 semester hours**

Prerequisites: PSYCH 1003. A survey course, designed for non-majors. This course examines development over the lifespan with an emphasis on the developmental tasks and hazards of each age period. Majors in Psychology and students planning to pursue a career in psychology research, teaching, or practice are strongly encouraged to take PSYCH 2270 instead of this course.

**PSYCH 2160 Social Psychology: 3 semester hours**

Same as SOC 2160. Prerequisite: PSYCH 1003 or SOC 1010. This course examines the behavior, thoughts, and feelings of individuals in their social environments. The content focuses not only on how people relate to one another, but also on the processes affecting their interactions with others. Specific topics include the self, social judgments, attitudes and persuasion, helping behavior, prejudice, aggression, attraction, conformity and obedience, and group processes. All Psychology majors taking this course instead of PSYCH 2270 must complete it with a grade of C- or higher.

**PSYCH 2200 Drugs And Behavior: 3 semester hours**

Prerequisite: PSYCH 1003. The course is an introduction to psychopharmacology and the relationship among drugs, and how these impact the brain and behavior. The emphasis is on physiological mechanisms underlying the behavioral responses to psychotherapeutic substances, illicit psychoactive drugs, commonly used substances (alcohol, nicotine, caffeine), and drug-like substances produced naturally in the body.

**PSYCH 2201 Psychological Statistics: 4 semester hours**

Prerequisites: PSYCH 1003 and satisfaction of the University's mathematical skills requirement. (With Laboratory) This course serves as an introduction to statistical concepts and methods used in Psychological measurement and the analysis and interpretation of social sciences data. Topics include descriptive statistics, frequency distributions centrality, variability, and correlational measures; as well as an introduction to statistical inference, sampling fundamentals, significance testing and effect size, t-test, and analysis of variance. All Psychology majors must complete this course with a grade of C- or higher before registering for PSYCH 2219.

**PSYCH 2205 Human Sexuality: Psychological Perspectives: 3 semester hours**

Prerequisites: PSYCH 1003. This course is a comprehensive overview of human sexuality from the standpoint of the behavioral science of Psychology. This course includes a study of sexual anatomy and physiology, intersex classifications, sex and gender differences, sexual orientation, interpersonal and interpersonal aspects of human sexuality, classification and treatment of sexual dysfunction and sexual disorders, sexual victimization, and the methods employed for the scientific examination of human sexual behavior.

**PSYCH 2211 Introduction To Biological Psychology: 3 semester hours**

Prerequisites: PSYCH 1003 and 3 hours of BIOL chosen from either BIOL 1012, or BIOL 1102, or BIOL 1831. Students with career goals that include graduate study in Psychology are urged to complete the BIOL 1831 prerequisite for this course. This course introduces psychology students to behavioral neuroscience and neuropsychology. Course topics include basic neuroanatomy and neurophysiology, neurodevelopment, sensory and motor systems, and the integration of subcortical and cortical networks. All are covered with an emphasis on behavioral outcomes of normal and pathological functioning of the brain. All psychology majors must complete this course with a grade of C- or higher.

**PSYCH 2219 Research Methods: 3 semester hours**

Prerequisite: Completion of PSYCH 2201 with a final grade of C- or higher is required prior to enrolling in this course. This course is a comprehensive overview of research methods in the social sciences. Topics include technical scientific writing in current APA format, critical evaluation of research literature, the application of statistical methods, and mastery of the ethical principles guiding social sciences research. Course and laboratory work involve designing and evaluating research questions, formulating research hypotheses, designing and conducting original research studies, and presenting research results. All psychology majors must complete this course with a grade of C- or higher.

**PSYCH 2222 Group Processes In Organizations: 3 semester hours**

Prerequisite: PSYCH 1003 or MGMT 3600. Topics Include Theory, Research And Practice In Coordination, Conflict And Decision-Making In Groups And Organizations, As Well As The Role Of Influence, Power, And Leadership Effectiveness In Understanding Interpersonal And Group Relations.

**PSYCH 2230 Psychology Of Gender: 3 semester hours**

Same as GS 2230. Prerequisite: PSYCH 1003. Evaluation of psychological theories and research regarding physiological, cognitive, and personality gender differences and similarities, gender related problems in adjustment, and gender specific clinical interventions.

**PSYCH 2232 Psychology Of Trauma: 3 semester hours**

Same as GS 2232. Prerequisites: PSYCH 1003. This course is designed to review the psychological effects of crime, violence, war, natural disasters, and other traumas. Particular attention is paid to the development of specific psychopathology and other negative consequences of traumatic events. The process of recovery from distress following psychological events is further emphasized. The role of gender and its relationship to victimization and the development of psychopathology and recovery are considered throughout the course.

**PSYCH 2245 Abnormal Psychology: 3 semester hours**

Prerequisite: PSYCH 1003. This course examines the historical views and current perspectives on the possible antecedents, symptoms, and treatments of major psychological disorders, including anxiety, dissociative, mood, somatoform, eating, schizophrenia and substance-related disorders. Major diagnostic categories and criteria, individual and social factors of maladaptive behavior, methods of clinical assessment, research strategies, and types of therapy will also be covered. All psychology majors must complete this course with a grade of C- or higher.

**PSYCH 2270 Developmental Psychology: Infancy, Childhood And Adolescence: 3 semester hours**

Prerequisites: PSYCH 1003. This course systematically examines theories and research concerning the physical, social, emotional, and cognitive development of children from conception through adolescence. It will provide students with a basic knowledge of infant, child, and adolescent development; its subject matter; its approaches to gathering and evaluating evidence about the causes of behavior; and the ways in which our knowledge is applied to enhance the development and the quality of life of children. It is intended for Psychology majors and students with career interests in research, education, and/or the treatment of children. All Psychology majors taking this course instead of PSYCH 2160, must complete it with a grade of C- or higher.

**PSYCH 2272 Developmental Psychology: Adulthood And Aging: 3 semester hours**

Same as GERON 2272. Prerequisite: PSYCH 1003. Personality, social, and physiological development from the onset of early adulthood through maturity and old age.

**PSYCH 2280 Psychology Of Death And Dying: 3 semester hours**

Same as GERON 2280. Prerequisites: PSYCH 1003. A beginning exploration of end-of-life issues integrating the scholarly, social, and individual dimensions of death and dying. This course provides a solid grounding in theory and research, as well as practical application to students' lives.

**PSYCH 2285 American Culture and Minority Mental Health: 3 semester hours**

Prerequisites: PSYCH 1003. Provides an examination of the relationship between American culture and mental health. The focus is on the lives of American minority groups, with specific attention given to how racism, prejudice, and minority status currently reveal themselves within a mental health framework. An eclectic, multidisciplinary approach that draws from clinical and social psychology will be utilized.

**PSYCH 3205 Evolutionary Psychology: 3 semester hours**

Prerequisites: PSYCH 2211. Evolutionary Psychology refers to a fundamentally unique approach to studying and thinking about human and animal behavior through considerations of 1. The challenges and stressors encountered in ancestral environments, 2. The proximate physical, psychological, and anatomical methods that evolved to meet these adaptive problems, and 3. How adaptive or maladaptive these mechanisms are in current environments. Special emphasis will be placed on the evolution of brain structures, cognitive processes, and social behaviors. The content for this course is not new; Evolutionary Psychology involves looking at the science of Psychology through a unique lens, shaped by its tenets. Although appreciation for this approach to psychological research is increasing, it remains controversial in psychology circles. We will discuss the state of this aspect of Psychology as well.

**PSYCH 3256 Environmental Psychology: 3 semester hours**

Prerequisites: PSYCH 2160 or SOC 2160 Analysis of environmental influences on behavior and man's influence, in turn, on the environment. Topics will include a consideration of both individual processes relating to the environment (such as the perception, evaluation, and adaptation to the environment) and social processes relating to the environment (such as privacy, territoriality, and crowding).

**PSYCH 3290 Traumatic Stress in Childhood and Adolescence: 3 semester hours**

Same as CAST 3290. Prerequisites: PSYCH 2270 (majors), PSYCH 1268, or approval from the instructor. Exploration of the impact of stressors experienced during infancy, childhood and adolescence. Integrates how theoretical frameworks, cultural considerations and policy implications apply to child development research and practice.

**PSYCH 3316 Fundamentals Of Leadership: 3 semester hours**

Prerequisites: PSYCH 1003 and six additional hours of Psychology, or consent of instructor. This course addresses concepts and methods for developing leadership skills in work and everyday settings. Contemporary approaches to leadership development are reviewed in relation to psychological and organizational theory. This course is designed to be relevant to the wide range of leadership opportunities that arise in work and daily life. Experiential exercises are used to help students discover and develop new leadership skills.

**PSYCH 3318 Industrial And Organizational Psychology: 3 semester hours**

Same as MGMT 3623. Prerequisite: PSYCH 2201 or MGMT 3600. This course introduces the student to psychological research and theories pertaining to human behavior in the work setting. Topics covered include: selection, performance appraisal, training, leadership, motivation, job satisfaction, and organizational design.

**PSYCH 3340 Clinical Problems Of Childhood: 3 semester hours**

Prerequisite: PSYCH 1003 and six additional hours of Psychology, or consent of instructor. This course will address the clinical disorders and difficulties of children, as well as the causes and the treatment of these disorders. Topics addressed include autism, childhood schizophrenia, conduct disorders, learning disabilities, ADHD, mood disorders, health-related disorders, anxiety disorders, and child maltreatment. Treatments designed for specific use with children, including behavioral, drug and community mental health approaches will be addressed. This course is recommended for those going on to graduate work in psychology.

**PSYCH 3346 Introduction To Clinical Psychology: 3 semester hours**

Prerequisite: PSYCH 1003, PSYCH 2245; and three additional hours of Psychology. This course provides a conceptual framework for research, description and understanding of clinical phenomena. Assessment, interviewing, the clinical use of tests and psychological approaches to treatment are also addressed.

**PSYCH 3390 Directed Studies: 1-6 semester hours**

Prerequisite: Consent of instructor Directed reading and research. May be repeated for a maximum total of ten hours.

**PSYCH 3400 Conceptual and Historical Foundations of Psychology: 3 semester hours**

Prerequisite: PSYCH 1003 and three additional hours of Psychology. This course addresses basic questions about human life debated throughout the history of the West that are present in contemporary Psychology. These include the relation between mind and body, how we know about the world, the nature of morality, and how we think and feel. Greek and Judeo-Christian traditions, and science and religion, have provided distinct, fundamental approaches to how these questions have been asked and answered. This course examines these and related historical, conceptual, and theoretical foundations underlying contemporary Psychology.

**PSYCH 3500 Health Psychology: 3 semester hours**

Prerequisite: PSYCH 1003 and three additional hours of Psychology. Health Psychology involves the discipline and principles of psychology and behavior in understanding how the mind, body, and behavior interact in health and disease. Class topics include theoretical foundations of health and illness, health promotion and primary prevention of illness, health enhancing and health damaging behaviors, psychosomatic illness, stress and coping, pain management, and a variety of specific behavior-related medical illnesses (e.g., heart disease, eating disorders, cancer, AIDS).

**PSYCH 3820 Cross-Cultural Psychology: 3 semester hours**

Prerequisites: PSYCH 1003 and 9 hours of Psychology The purpose of this course is to present students with a broad theoretical and applied overview of cross-cultural psychology. To this end, the course presents an orientation to the definitions, concepts, theories, and methodologies of crosscultural psychology. Included is an examination of cultural and ecological factors and their influences on perceptual and cognitive processes, personality, language, and other psychological variables.

**PSYCH 4300 Introduction To Psychopharmacology: Drugs And Mental Illness: 3 semester hours**

Prerequisites: PSYCH 1003, PSYCH 2211 or PSYCH 2200; PSYCH 2245. The course is designed to provide an introduction to drugs used to treat anxiety disorders, major depression, schizophrenia, and other psychopathologies. The emphasis will be on understanding neural mechanisms related to psychological disorders and to the effectiveness of current drug treatments.

**PSYCH 4305 Developmental Psychology: Cognitive Development of Children: 3 semester hours**

Prerequisites: PSYCH 1003, PSYCH 2270, and Junior standing, or consent of instructor. Data and theory concerned with how children's thinking changes over time. Discussion will include domain-general versus domain-specific theories, social and cultural influences on cognition, gains in memory, attention, problem solving, and metacognition, conceptual development, children's naive theories, schooling, and various definitions and measures of intelligence.

**PSYCH 4311 Psychology Of Nonverbal Behavior: 3 semester hours**

Prerequisite: PSYCH 2160 or PSYCH 2160. This course examines the psychological perspective on the role of nonverbal behavior in social settings. Primary concerns of the course will include an analysis of the functions of nonverbal behavior (e.g., providing information, regulating interaction, expressing intimacy, exercising influence, and managing impressions), factors influencing nonverbal expression (e.g., culture, personality, relationships), and various theoretical views on nonverbal communication. Applications to various problems and settings in everyday life will also be pursued.

**PSYCH 4314 Behavioral Neuroscience: 3 semester hours**

Prerequisites: 9 hours of Psych and/or Biology: PSYCH 2211 is recommended but not required. A neuroscience course focusing on behavioral outcomes of brain function and dysfunction. Emphasis will be on modern research methods with animal models and humans. Topics discussed will include the classic findings in the field, but the emphasis will be on recent findings from human neuropsychology, neuroimaging, cognitive neuroscience, neuropharmacology, and neuroendocrinology.

**PSYCH 4316 Developmental Psychology: Social Development of Children and Adolescents: 3 semester hours**

Prerequisites: PSYCH 1003, PSYCH 2270, and Junior standing, or consent of instructor. This course examines data and theory concerned with social behavior in infants, preschoolers, and school-aged children. Discussion will include emotional regulation; measurement and nature of temperament; the formation and maintenance of attachment relationships; sex-role development; and theories of aggression and the effects of socializing agents such as family, peers, media, and culture on development.

**PSYCH 4330 Hormones, The Brain And Behavior: 3 semester hours**

Prerequisites: 9 hours of Psychology or Biology, including at least one of the following: PSYCH 2200, PSYCH 2211, or PSYCH 4300 or permission of instructor. This course may be taken for graduate credit with permission of the instructor. Historically, hormones have been studied for their role in reproduction, including reproductive physiology and sexual behaviors. It is now clear, however, that the endocrine system actively interacts with brain regions unrelated to reproduction with the result that sex hormones and neuropeptide hormones influence a wide range of behaviors including mood, anxiety, stress responses, cognition, memory, violence, attachment, aging, weight control and athletic prowess. Emphasis of the class is on hormonal contribution both to reproductive and non-reproductive behaviors with special attention paid to gender behavioral differences.

**PSYCH 4349 Human Learning And Memory: 3 semester hours**

Prerequisite: Nine hours of psychology or consent of instructor. This course is an introduction to classic and contemporary theories, methodologies, and theoretical perspectives used in the fields of learning and memory. The course will explore the various divisions of memory along with processes involved in the acquisition, retention, and retrieval of information. Some of the specific topics include infantile amnesia, false memory, flashbulb memories, and photographic memory. The course will explore various theories of learning as well as optimal conditions for the long-term retention of information.

**PSYCH 4356 Cognitive Processes: 3 semester hours**

Prerequisite: Nine hours of psychology or consent of instructor. This course is an overview of the major topics in cognitive psychology, including perception, visual imagery, attention, memory, knowledge representation and retrieval, language, problem solving, reasoning, judgment, decision making, and intelligence.

**PSYCH 4365 Psychological Tests And Measurements: 3 semester hours**

Prerequisites: Grade of C- or above in PSYCH 2201 and PSYCH 2219, or consent of instructor. This course is a survey of the basic principles, research, and theories on testing and measurement of psychological constructs. Students will critically examine several professionally developed tests and learn about the administration, interpretation, and psychometric qualities of each.

**PSYCH 4374 Introduction To Clinical Neuropsychology: 3 semester hours**

Prerequisites: Nine hours of Psychology. An introduction to current theory and practice of clinical neuropsychology with a focus on neuropsychological findings concerning relationships between the brain and behavior. Particular attention is devoted to function, neuroanatomy, neurological syndromes, patterns of brain impairment associated with various medical diseases, and methods of neuropsychological assessment and intervention.



**PSYCH 4376 Mental Health And Aging: 3 semester hours**

Same GERON 4376 and SOC WK 4376. Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) This course provides a survey of theory and research in mental health issues for older populations, focusing on psychological and social aspects of mental health and impairment. The course details approaches to understanding prevalence, etiology, assessment, and treatment of the psychological disorders most commonly experienced by older adults, including anxiety, depression, delirium, and dementia, among others.

**PSYCH 4392 Selected Topics In Psychology: 1-3 semester hours**

Prerequisite: Twelve hours of psychology and consent of instructor. A seminar of selected issues and methods in psychology. May be repeated once for credit.

**PSYCH 4398 Child Maltreatment: A Multidisciplinary Approach: 3 semester hours**

Same as SOC WK 4398 and CAST 4398. Focuses on clinical aspects of child abuse with attention to identification, reporting, intervention and prevention. Perspectives from the disciplines of psychology and social work are provided.

**PSYCH 4698 Internship in Child Advocacy Studies: 3 semester hours**

Same as CAST 4698. Prerequisites: PSYCH 4398, completion of or concurrent enrollment in PSYCH 4498 and PSYCH 4598, and approval from the CAST director. Internship under CAST staff supervision in child or youth-serving setting. Monthly seminar participation required. Approval from the CAST director is required prior to enrolling.

**PSYCH 4999 Integrated Psychology: 2 semester hours**

Prerequisites: This course is restricted to Psychology majors and must be taken during majors' final semester of study. This capstone course serves as a review of the primary sub-fields of psychology. An advanced general psychology textbook will guide the class through important contemporary topics in behavioral neuroscience, learning and memory, cognition, psychopathologies and their treatments, and developmental and social psychology. The Major Field Aptitude Test in Psychology will serve as the final exam for the course. All Psychology majors must complete this course with a grade of C- or higher.

**PSYCH 5001 Neuropsychological Assessment: 3 semester hours**

Prerequisites: Admission to Psychology graduate program, or consent of instructor. This graduate level course will review neuroanatomical systems that mediate primary cognitive networks and methods of assessments and interpretation of data. The course will also review common neurological and psychiatric conditions that result in neuropsychological compromise.

**PSYCH 5340 Human Neuroanatomy: 3 semester hours**

Prerequisites: Admission to graduate program in psychology or consent of instructor. This course provides an overview of brain anatomy for graduate students in psychology and related disciplines. It explores the structure and function of the human nervous system both in health and disease. The course will cover core concepts from cellular neuroscience, neuroimaging and neuroanatomical techniques, sensory and motor systems, and the anatomical basis of cognitive functions.

**PSYCH 5400 Seminar: Special Topics in Behavioral Neuroscience: 1 semester hour**

Prerequisites: Admission to the graduate program in behavioral neuroscience or consent of the instructor. A seminar of selected contemporary topics in behavioral neuroscience. The class will meet weekly to discuss a journal article in the field with special focus on the methodologies used in neuroscience research. May be repeated for a total of 3 credit hours, provided the subject matter is different.

**PSYCH 5407 Psychopharmacology: 3 semester hours**

Prerequisite: 12 units of graduate-level An examination of the effects of drugs on the brain and on behavior. Primary emphasis is on those drugs used in the treatment of affective disorders, schizophrenia and anxiety.

**PSYCH 5465 Seminar: Behavioral Neuroscience: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Behavioral neuroscience is the study of the relation of the brain to behavior. The field has emerged as the new face of psychology; there are few subfields in psychology that have not been influenced by findings from animal labs, and from human studies employing physiological recordings, neuroimaging and psychotherapeutic drugs. This course will serve as an introduction for graduate students in psychology of brain morphology and function with an emphasis on normal and pathological behaviors.

**PSYCH 5468 Seminar: Cognitive Processes: 3 semester hours**

Prerequisites: Admission to the Graduate Program in Psychology or consent of instructor. This course is an introduction to classic and contemporary theories, methodologies, and theoretical perspectives used in the field of cognitive psychology. The emphasis is on basic research in the field of cognitive psychology but some applications of these experiments are discussed as well. The class will read and discuss chapters from cognitive psychology textbooks as well as classic and contemporary empirical journal articles in cognitive Psychology.

**PSYCH 5610 Mechanisms Of Aging I: The Aging Body: 1 semester hour**

Same as SOC WK 5610 and GERON 5610. Prerequisites: Graduate standing and BIOL 1102 or equivalent. (MSW students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social sciences/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

**PSYCH 5611 Mechanisms Of Aging II: The Aging Brain: 1 semester hour**

Same as SOC WK 5611 and GERON 5611. Prerequisites: GERON 5610 or SOC WK 5610 or PSYCH 5610 or equivalent or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

**PSYCH 5612 Mechanisms Of Aging III: Diseases Of Aging: 1 semester hour**

Same as SOC WK 5612 and GERON 5612. Prerequisites: GERON 5610 and GERON 5611, or SOC WK 5610 and SOC WK 5611, or PSYCH 5610 and PSYCH 5611 or equivalent or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course). Provides students with a social sciences/humanities background with the information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.

**PSYCH 6415 Seminar in Health Psychology & Behavioral Medicine: 3 semester hours**

Prerequisites: Consent of instructor. This course analyzes research, theory, and clinical applications in the interrelationships of behavior, psychological states, physical health and disease. Discussion includes theoretical foundations of health and illness, biopsychosocial factors affecting health and illness, diagnostic issues, prevention, Interdisciplinary treatment applications, health and public policy, and research issues. Critical evaluation of theory and empirical support for clinical applications will be discussed.

**PSYCH 6441 Aging And Health Behavior: 3 semester hours**

Same as GERON 6441. Prerequisite: Graduate standing. This course examines sociocultural influences on health care practices of older adults. The role of social support and other social resources in the health behavior of older adults is emphasized. Topics include self care decisions, formal service utilization, family caregiving, and planned interventions for older adults.

**PSYCH 6448 Multicultural Issues In Clinical Psychology: 3 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. A survey of theoretical perspectives utilized in the treatment of various cultural groups. Their relationship to and implications for the treatment of members of various cultural groups will be explored. Strategies and ethical concerns in diagnosis, test interpretation, and treatment are considered.

**PSYCH 6466 Seminar: Developmental Psychology: 1-3 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. A critical examination of contemporary problems in developmental psychology.

**PSYCH 7403 Psychopathology: 3 semester hours**

Prerequisite: Admission To Clinical Psychology Program Or Permission Of Instructor. A Critical Examination Of The Clinical-Experimental Literature In Psychopathology. Etiologies Of Cognitive/Affective Functions And Dysfunctions Are Explored, And Implications For Therapeutic Interventions Are Considered.

**PSYCH 7404 Introduction To Clinical Assessment I: 4 semester hours**

Prerequisites: Admission to Clinical Psychology program. Fundamentals of clinical assessment with emphasis on interviewing and the measurement of cognitive functioning. This course includes a laboratory.

**PSYCH 7405 History And Systems In Psychology: 3 semester hours**

Prerequisites: Admission to Clinical Psychology program or consent of instructor. A comprehensive overview of the history of psychology with emphasis on the systems of thought that have shaped contemporary psychological theory and research.

**PSYCH 7406 Introduction To Clinical Assessment II: 4 semester hours**

Prerequisites: PSYCH 7404. This course addresses theory and techniques of personality assessment including clinical interviewing, objective and projective assessment, and integrative report writing.

**PSYCH 7410 Women And Mental Health: 3 semester hours**

Same as GS 6410. Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. This course will focus on contemporary research on the psychology of women pertaining to mental health issues. Etiology and treatment of disorders disproportionately affecting women will be emphasized.

**PSYCH 7412 Social Psychology: 3 semester hours**

Prerequisites: Admittance to psychology doctoral program or consent of instructor. A review of key areas in contemporary theory and research in social psychology.

**PSYCH 7419 Existential Issues In Clinical Psychology: 3 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. This course will review existential thought in psychology and its application to understanding clinical problems and treatment. Particular attention will be given to how psychotherapy can be understood within an existential framework that focuses on the issues of death, freedom, responsibility, and isolation.

**PSYCH 7421 Quantitative Methods I: 4 semester hours**

Prerequisites: Admission to the Graduate Program in Psychology or consent of instructor. A comprehensive study of univariate statistical concepts and analyses used in psychological research. Topics include descriptive statistics, normal distributions, z, t, F, chi-square statistics, and distributions. Correlation, simple and multiple regression, factorial and repeated measures analysis of variance, significance testing and effect size are also examined.

**PSYCH 7422 Quantitative Methods II: 4 semester hours**

Prerequisites: PSYCH 7421 and consent of instructor (With laboratory) A comprehensive study of the use of multivariate statistics in data analysis. Topics include the general linear model, multiple regression, factor analysis, and multivariate analysis of variance.

**PSYCH 7423 Quantitative Methods III: 3 semester hours**

Prerequisites: PSYCH 7422 and PSYCH 7429 and consent of instructor. A selective study of the use of multivariate statistics in data analysis. Topics include structural equation modeling, multilevel modeling, and analysis of longitudinal data.

**PSYCH 7429 Psychometric Theory: 3 semester hours**

Prerequisites: PSYCH 7421, PSYCH 7422 and consent of instructor A consideration of classical and modern theories of psychological testing. Topics include test reliability, validity and construction.

**PSYCH 7430 Introduction To Clinical Skills: 1 semester hour**

Prerequisites: Admission to doctoral program in clinical psychology. An introduction to processes and procedures involved in psychotherapy.

**PSYCH 7431 Clinical Supervision: 1-3 semester hours**

Prerequisite: Admission to Clinical Psychology Program. Supervised experience in clinical practice. May be repeated six times for credit.

**PSYCH 7432 Ethics And Professional Issues: 3 semester hours**

Prerequisites: Admission to Clinical Psychology program. A study of issues in professional development, clinical supervision, risk management, and ethical standards as they relate to teaching, research, and professional practice.

**PSYCH 7433 Clerkship in Clinical Psychology: 1 semester hour**

Prerequisites: Admission to the doctoral program in Clinical Psychology. Supervised training in an affiliated agency or organization following completion of two years of course work. (May be repeated 3 times).

**PSYCH 7434 Introduction to Clinical Interventions: 3 semester hours**

Prerequisites: Admittance to Clinical Psychology program and PSYCH 7406. This course focuses on conceptual and methodological issues that are central to the development, evaluation and application of interventions in clinical psychology. Topics include efficacy and effectiveness research, introduction to theories of behavior change, and applications with specific populations.

**PSYCH 7439 Summer Supervision: 1 semester hour**

Prerequisites: PSYCH 7431 Supervised experience in clinical practice at all graduate year levels during the summer months. Can be repeated for credit.

**PSYCH 7442 Seminar: Cognitive And Behavioral Interventions: 3 semester hours**

Prerequisites: PSYCH 7434 This course focuses on the theory and practice of cognitive-behavioral interventions in the field of clinical psychology.

**PSYCH 7447 Trauma And Recovery: 3 semester hours**

Prerequisites: Graduate Trauma Studies Certificate A comprehensive seminar on the psychological effects associated with exposure to potentially traumatic events. The course will include information on the history of trauma studies; definitions of stressful and traumatic events; common responses to these events; theoretical models for conceptualizing traumatic responses; information on specific types of traumatic events; and issues in treatment.

**PSYCH 7449 Research Methods and Project Development In Applied Psychology: 1-3 semester hours**

Prerequisite: Admission to the Graduate Program in Psychology or consent of instructor. This course focuses on the basics of conducting research in Industrial-Organizational Psychology. Topics include: philosophy of science; reliability and validity; experimental, quasi-experimental, and non-experimental designs; power; meta-analysis; survey/item analyses; and cross-cultural methods. In addition, the course includes group supervision of initial research that leads to thesis or dissertation proposals. Can be taken up to three times for a total of 6 credit hours.

**PSYCH 7450 Clinical Internship I: 1-9 semester hours**

Prerequisite: Consent of advisor. Formal, one year, full-time internship providing student with in-depth supervised training within a site approved by the American Psychological Association. This course is repeated in the fall and spring semesters of the internship year.

**PSYCH 7451 Clinical Internship II: 1-9 semester hours**

Prerequisite: PSYCH 7450 and consent of advisor. Formal, one-year, full-time internship providing student with in-depth supervised training within a site approved by the American Psychological Association. (Taken in the final summer of the internship).

**PSYCH 7454 Seminar: Personnel Psychology: 3 semester hours**

An analysis of theories and research in personnel and industrial psychology. Topics include testing, assessment centers, performance appraisal, and interviewing.

**PSYCH 7455 Seminar: Organizational Psychology: 3 semester hours**

An analysis of theories and research in organizational psychology. Topics include theories of motivation, leadership, job design, group process decision-making, organizational effectiveness, and the relation between organizations and their environment.

**PSYCH 7457 Seminar: Special Topics In Industrial Psychology: 3 semester hours**

A seminar of selected issues and methods in personnel psychology.

**PSYCH 7458 Seminar: Special Topics In Organizational Psychology: 3 semester hours**

A seminar of selected issues and methods in organizational psychology.

**PSYCH 7459 Practicum In Industrial/Organizational Psychology: 1-4 semester hours**

Supervised experience in personnel or human resource management.

**PSYCH 7461 Summer Research in I/O Psychology: 1 semester hour**

Prerequisites: Admission to I/O program. Supervised experience on research topics in I/O psychology at all graduate year levels during the summer months. Can be repeated for credit.

**PSYCH 7464 Field Experiences in Industrial-Organizational Psychology: 3 semester hours**

Prerequisites: PSYCH 7454 and PSYCH 7455 or consent of instructor. The course focuses on the innovative application of psychological theory and principles to solving some pressing human resources issues, including actual organizational projects. Through readings, discussions and projects, students obtain hands-on experience with applied psychological issues, striking the needed balance between the theoretical and applied components of Industrial-Organizational psychology.

**PSYCH 7465 Applied Issues In Organizational Psychology: 3 semester hours**

Prerequisites: PSYCH 7455 or consent of instructor course focuses on the application of psychological theory and principles to organizational development consulting. While such consulting is ultimately intended to enhance organizational level functioning, applications of this approach begin with learning at the individual and small group levels. In this course, students work through real-world cases that address real organizational problems. In addition to this casework, the readings and class discussions will address the theoretical and practical links between individual/team learning and organizational development.

**PSYCH 7466 Seminar Series in Industrial/Organizational Psychology: 1 semester hour**

Prerequisites: Open only to students in the I/O Psychology Graduate Program. A seminar series involving speakers, presentations, and discussions focusing on applied and theoretical perspectives, techniques, and research in the field of Industrial/Organizational Psychology. May be taken up to 6 times for credit.

**PSYCH 7469 I/O Professional Issues And Ethics: 3 semester hours**

Prerequisite: Consent of Instructor In this course students learn the ethical standards as they relate to teaching, research and professional practice in industrial organizational psychology. Other professional and career issues are also discussed.

**PSYCH 7472 Special Topics In Psychology: 1-3 semester hours****PSYCH 7474 Clinical Research In Applied Settings: 3 semester hours**

Prerequisites: PSYCH 7421 and PSYCH 7422 This course provides information on the design and implementation of research in applied settings (e.g., human service agencies). Topics include program evaluation, consultation models, risk factor analysis, presentation and health promotion, and quality control.

**PSYCH 7476 Seminar In Developmental Psychopathology: 2 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology or consent of instructor. Introduction to principles, theory, and methods of study in the field of clinical child psychology. Emotional and behavioral dysfunctions are considered from developmental and socialization perspectives.

**PSYCH 7477 Clinical Intervention with Children and Families: 3 semester hours**

Prerequisite: PSYCH 7434 and PSYCH 7476. This course provides an overview of the theory and practice of clinical interventions with children, adolescents, and families.

**PSYCH 7478 Directed Research In Industrial/Organizational Psychology: 1-4 semester hours**

Independent study of an issue in industrial/organizational psychology through the application of research techniques.



**PSYCH 7479 Directed Readings In Industrial/Organizational Psychology: 1-4 semester hours**

Independent literature review of a topic in industrial/organizational psychology.

**PSYCH 7483 Directed Research: 1-10 semester hours****PSYCH 7484 Directed Readings: 1-10 semester hours****PSYCH 7485 Research Team I: 2 semester hours**

Group supervision of beginning research leading to the Independent Research Project.

**PSYCH 7486 Research Team II: 2 semester hours**

Prerequisites: Completion of Independent Research Project or third year standing in doctoral program in clinical psychology. Group supervision of advanced research related to dissertation proposal and program's comprehensive examination required for doctoral candidacy.

**PSYCH 7487 Thesis Research Project: 1 semester hour**

Prerequisites: Admission to the doctoral program in clinical psychology. Supervised original research project of a clinically-related topic.

**PSYCH 7488 Specialty Examination Research: 1-6 semester hours**

Prerequisites: Admission to the doctoral program in Clinical Psychology. Supervised original review and analysis of a clinically-related topic.

**PSYCH 7491 MA Thesis Research: 1-10 semester hours****PSYCH 7492 Ph D Thesis Research: 1-10 semester hours**

## Quantitative Management Science

### Courses

**QN MGT S 6360 Advanced Operations Research Applications: 3 semester hours**

Prerequisite: LOG OM 5350. Application of operation research techniques to business problems. After a brief review of these techniques, followed by an examination of typical applications reported in the literature, the major portion of the term is spent in analyzing and solving an actual business operations research problem. A team approach is used, with groups of two or three students responsible for finding and solving an operations research problem in a local company. Primary emphasis is placed on the use of operations research techniques to solve management problems.

### Courses

**QN MGT S 6360 Advanced Operations Research Applications: 3 semester hours**

Prerequisite: LOG OM 5350. Application of operation research techniques to business problems. After a brief review of these techniques, followed by an examination of typical applications reported in the literature, the major portion of the term is spent in analyzing and solving an actual business operations research problem. A team approach is used, with groups of two or three students responsible for finding and solving an operations research problem in a local company. Primary emphasis is placed on the use of operations research techniques to solve management problems.

## Russian

### Courses

**RUSSIAN 1001 Russian I: 5 semester hours**

Emphasis will be placed upon the speaking and understanding of Russian and upon the acquisition of the fundamentals of grammar and syntax. Five hours of class and one hour language laboratory per week required.

**RUSSIAN 1002 Russian II: 5 semester hours**

Prerequisite: RUSSIAN 1001 or equivalent. Emphasis will be placed upon the speaking and understanding of Russian and upon the acquisition of the fundamentals of grammar and syntax. Five hours of class and one hour language laboratory per week required.

**RUSSIAN 1035 English Grammar For Students Of Foreign Languages: 1 semester hour**

This course is designed to familiarize the student with basic English grammar and the terms commonly used in the teaching of most languages. This course does not count toward a major or minor in English or any other language.

**RUSSIAN 1108 Introduction To Life In Russia: 2 semester hours**

This course gives insights into the practices, customs and habits of contemporary Russian society. It targets the beginner and teaches many useful phrases for basic reading skills for business or travel. Course is taught in English and does not count towards the language requirement.

**RUSSIAN 2100 Scientific Russian: 3 semester hours**

Prerequisite: RUSSIAN 1002 or equivalent. Introduction to reading of selected Russian texts in the natural and social sciences. Designed primarily for majors in these areas.

**RUSSIAN 2101 Intermediate Russian Language & Culture: 5 semester hours**

Prerequisite: RUSSIAN 1002 or equivalent. Grammar review and continued development of language skills with readings in their cultural context.

**RUSSIAN 2190 Special Readings: 1-3 semester hours**

Prerequisite: RUSSIAN 2101 or equivalent. Readings on literary topics mutually acceptable to student and instructor.

### Courses

**RUSSIAN 1001 Russian I: 5 semester hours**

Emphasis will be placed upon the speaking and understanding of Russian and upon the acquisition of the fundamentals of grammar and syntax. Five hours of class and one hour language laboratory per week required.

**RUSSIAN 1002 Russian II: 5 semester hours**

Prerequisite: RUSSIAN 1001 or equivalent. Emphasis will be placed upon the speaking and understanding of Russian and upon the acquisition of the fundamentals of grammar and syntax. Five hours of class and one hour language laboratory per week required.

**RUSSIAN 1035 English Grammar For Students Of Foreign Languages: 1 semester hour**

This course is designed to familiarize the student with basic English grammar and the terms commonly used in the teaching of most languages. This course does not count toward a major or minor in English or any other language.

**RUSSIAN 1108 Introduction To Life In Russia: 2 semester hours**

This course gives insights into the practices, customs and habits of contemporary Russian society. It targets the beginner and teaches many useful phrases for basic reading skills for business or travel. Course is taught in English and does not count towards the language requirement.

**RUSSIAN 2100 Scientific Russian: 3 semester hours**

Prerequisite: RUSSIAN 1002 or equivalent. Introduction to reading of selected Russian texts in the natural and social sciences. Designed primarily for majors in these areas.



***RUSSIAN 2101 Intermediate Russian Language & Culture: 5 semester hours***

Prerequisite: RUSSIAN 1002 or equivalent. Grammar review and continued development of language skills with readings in their cultural context.

***RUSSIAN 2190 Special Readings: 1-3 semester hours***

Prerequisite: RUSSIAN 2101 or equivalent. Readings on literary topics mutually acceptable to student and instructor.

## Secondary Education

### Courses

***SEC ED 3240 Curriculum And Methods Of Teaching Physical Sciences: 3 semester hours***

Prerequisites: TCH ED 3310 or TCH ED 5310 and a near major in the subject area. A study of the scope and sequence of the physical science courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of science. To be taken concurrently with Practicum I. This course must be completed in residence.

***SEC ED 4011 The Curriculum And Methods Of Teaching History And Social Studies: 3 semester hours***

Prerequisites: Admission to the Teacher Education Program and completion of all Level II courses. Must be taken concurrently with SEC ED 4989. A study of the scope and sequence of history and social studies courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. May not count toward history hours required for history major. Must be completed prior to student teaching. This course must be completed in residence. Not available for graduate credit.

***SEC ED 4012 Social Studies Teaching Seminar: 1 semester hour***

Prerequisites: SEC ED 4989. Must be taken concurrently with student teaching. Addresses the application of teaching strategies and instructional technology in the classroom setting. Offered concurrently with Secondary School Student Teaching, SEC ED 4990. Not available for graduate credit.

***SEC ED 4013 United States History For The Secondary Classroom: 3 semester hours***

Prerequisites: Admission to the Teacher Education Program. TCH ED 3310 or consent of the instructor. This course is required for Social Studies certification. Adapts the themes and subject matter of American history to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting themes of American history, on expanding bibliography, and on choosing methods of inquiry for use in an interactive classroom. Cannot be counted towards the minimum 39-hour history major requirement, but can be counted towards the 45 hour maximum and for Social Studies certification. Not available for graduate credit.

***SEC ED 4090 American Government For The Secondary Classroom: 3 semester hours***

Same as POL SCI 4090. Prerequisites: POL SCI 4090/ SEC ED 4090 must be taken concurrently with SEC ED 4011 except with special consent of the School Studies Coordinator. Adapts the themes and subject matter of American Government to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting methods of inquiry for use in an interactive classroom. Can be counted towards the Political Science major requirement, but not the American Politics subgroup. Counts towards Social Studies certification. Not available for graduate credit.

***SEC ED 4320 Classroom Management: 3 semester hours***

Same as ECH ED 4320, ELE ED 4320. Prerequisites: Level I and II courses or consent of instructor. Understanding classroom management as the development of engaging instruction that establishes healthy and culturally appropriate teacher-student relationships, builds successful classroom community and enhances student learning. Participants develop a culturally relevant classroom management plan that includes rules, procedures, expected behaviors and uses problem solving strategies to resolve behavior problems. Emphasis is on the teacher developing the social competence of Pre K-12 students within culturally diverse classrooms and engaging families in supportive interactions.

***SEC ED 4589 Curriculum And Methods Of Teaching Foreign Languages: 3 semester hours***

Same as FGN LANG 4589. Prerequisites: TCH ED 3310 or TCH ED 5310 and passing the departmental language skill test. A study of the scope and sequence of the foreign language courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of foreign language. To be taken prior to student teaching. This course must be completed in residence. Not available for graduate credit.

***SEC ED 4590 Foreign Language Teaching Seminar: 2 semester hours***

Same as FGN LANG 4589. Prerequisite: Concurrent enrollment in SEC ED 4990 or consent of instructor. A practicum course in the teaching of foreign languages. Review and explanation of drills, dialogues, and a variety of classroom techniques, oral and written. A continuation of SEC ED 4589, Curriculum & Methods, with an emphasis on specific practical skills. To be taken concurrently with SEC ED 4990, Student Teaching. Not available for graduate credit.

***SEC ED 4646 The Curriculum And Methods Of Teaching Math: 3 semester hours***

Prerequisites: Admission to the Teacher Education Program and completion of all Level II courses. Must be taken concurrently with SEC ED 4989. A study of the scope and sequence of the mathematics courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of mathematics. To be taken prior to student teaching. This course must be completed in residence. Not available for graduate credit.

***SEC ED 4648 Mathematics Teaching Seminar: 2 semester hours***

Prerequisites: SEC ED 4989. Must be taken concurrently with SEC ED 4990. A seminar in the integration of mathematics curricula, Educational philosophy, teaching strategies, and instructional technology in the classroom setting. Not available for graduate credit.

**SEC ED 4837 Chemistry/Physics Teaching Seminar: 2 semester hours**

Prerequisites: SEC ED 3240 and SEC ED 4989. A seminar to accompany practice teaching covering integration of physical science curricula and methods into the classroom setting. To be taken concurrently with SEC ED 4990. Two-hour discussion per week.

**SEC ED 4880 Writing For Teachers: 3 semester hours**

Prerequisite: ENGL 3090 or junior level English. Same as ENGL 4880. Writing for Teachers is an English-education course that supports writing across the curriculum for both pre-service English and content area teachers. Teacher candidates learn writing theories and literacy strategies to help their future students construct meaning from their discipline. The course works best for those who are completing level II or beginning level III education courses. The course counts toward the Certificate in Writing.

**SEC ED 4885 The Curriculum And Methods Of Teaching English: 3 semester hours**

Prerequisites: Completion of Level II education courses and a near major in English. A study of the scope and sequence of the English courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. The course prepares students for reflective teaching by relating course readings to field experiences and theory to practice. To be taken prior to student teaching and concurrently with Practicum I, SEC ED 4989.

**SEC ED 4886 The Curriculum and Methods of Teaching Speech and Theatre: 3 semester hours**

Same as TH DAN 4886. Prerequisites: TCH ED 3310 or TCH ED 5310; students must be within three hours of completing a major in either Communications or Theatre, with 15-18 hours completed in the other subject area. A study in the scope and sequence of the Speech and Theatre courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. The course prepares students for reflective teaching by relating course readings to field experience and theory to practice. To be taken prior to student teaching and concurrently with SEC ED 4989; Secondary Education Professional Internship. This course must be completed in residence. Not available for graduate credit.

**SEC ED 4888 English Teaching Seminar: 2 semester hours**

Prerequisites: SEC ED 4885 and a near major in the subject area. A seminar in the integration of English curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with Practicum II SEC ED 4990. Not available for graduate credit.

**SEC ED 4985 Curriculum And Methods Of Teaching Life Sciences: 4 semester hours**

Prerequisites: TCH ED 3310 or TCH ED 5310 and a near major in biology. A study of the scope and sequence of the life science courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. The analysis of teaching/learning and field experience observations in secondary school classrooms will be integrated into classroom activities and discussions. Take concurrently with SEC ED 4989. This course must be completed in residence.

**SEC ED 4986 Laboratory In Teaching Life Sciences: 2 semester hours**

Prerequisite: TCH ED 3310. Discussion, development, utilization, and evaluation of equipment, materials, and techniques applicable to instruction in the life sciences.

**SEC ED 4989 Practicum I: Site Based Experience: 3 semester hours**

Prerequisites: Level I & II requirements. This course is an intensive professional development experience (1 day per week for 14 weeks) working in a school setting. Activities on site include assisting the classroom teaching in all areas of instruction, assessment, and classroom management. This course is to be taken during the semester immediately preceding Practicum II (student teaching). This course must be taken in conjunction with methods of instruction course in specific content area. Assignments from the methods course(s) may be completed in the Practicum setting, and experiences in the school guide the methods course activities and discussions. Not available for graduate credit.

**SEC ED 4990 Practicum II: Site Based Experience: 12 semester hours**

Prerequisites: SEC ED 4989 and appropriate curriculum and methods course in the teaching field. Teacher candidates spend time in schools engaged in various capacities to improve student learning within small group instruction, whole class teaching, lesson planning and special programs to demonstrate proficiency on all MoSPE standards. Not available for graduate credit.

**SEC ED 4993 Student Teaching In Music K-6: 6 semester hours**

Prerequisites: Level I and Level II Education Courses. \*MUS ED 3570, \*MUSIC ED 3670/ SEC ED 3670, PRACTM 2180. \*MUS ED 3680 \*MUS ED 3700 (Instrumental emphasis majors); MUS ED 3290, \*MUS ED 3690 / SEC ED 3690, \*MUS ED 3710(Choral/Vocal emphasis majors); and admission to student teaching. Must be taken "in block" with SEC ED 3294 and must immediately precede it in the semester. Clinical teaching experience in music education settings in the schools under university and school supervision with seminar included. Required of all majors in music education. \*Courses must be taken in residence. Not available for graduate credit.

**SEC ED 4994 Student Teaching In Music, 7-12: 6 semester hours**

Prerequisite: SEC ED 4993. Must be taken "in block" with SEC ED 4993 and must immediately follow it in the semester. Clinical Teaching experience in music education settings in the schools under university and school supervision with seminar included. Assignments will be in different settings from those of SEC ED 4993. Required of all majors in music education. Courses must be taken in residence. Not available for graduate credit.

**SEC ED 4996 Practicum II: Site Based Experience in Elementary Art: 6 semester hours**

Prerequisites: ART ED 4273, SEC ED 4989, 45 hours of Studio Art, and 15 hours of Art History. Intensive clinical teaching experience under university and school supervision, with seminar included. Must be taken "in block" with SEC ED 4997. Not available for graduate credit.

**SEC ED 4997 Practicum II: Site Based Experience in Secondary Art: 6 semester hours**

Prerequisites: ART ED 4273, SEC ED 4989, 45 hours of Studio Art, and 15 hours of Art History. Clinical teaching experience under university and school supervision in middle/junior high and/or high school, with seminar included. Must be taken in block with SEC ED 4996. Not available for graduate credit.

**SEC ED 4999 Biology Science Teaching Seminar: 3 semester hours**

Prerequisites: SEC ED 4985 and SEC ED 4986. The application of Educational philosophy, science curriculum, teaching strategies and instructional technology in the classroom setting. Offered concurrently with Secondary School Student Teaching, SEC ED 4990. Not available for graduate credit.

**SEC ED 5000 Teacher Practicum Research: 1 semester hour**

Prerequisites: Admission into Student Teaching. Students conduct research on their own teaching in order to modify their instruction, curriculum and assessment practices. Concurrent enrollment in Sec ED 4990, Secondary Student Teaching.

**SEC ED 5012 Social Studies Teaching Advanced Seminar: 2 semester hours**

Prerequisites: SEC ED 4011 An advanced seminar in the analysis and synthesis of current research and best practice of social studies curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

**SEC ED 5374 Foreign Language Teaching Advanced Seminar: 2 semester hours**

Prerequisites: SEC ED 4589 or FGN LANG 4589. An advanced seminar in the analysis and synthesis of current research and best practice of foreign language curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

**SEC ED 5648 Mathematics Teaching Advanced Seminar: 2 semester hours**

Prerequisites: SEC ED 4646. An advanced seminar in the analysis and synthesis of current research and best practice of mathematics curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

**SEC ED 5888 English Teaching Advanced Seminar: 2 semester hours**

Prerequisites: SEC ED 4885. An advanced seminar in the analysis and synthesis of current research and best practice of English curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

**SEC ED 5989 Practicum I: Site Based Experience: 2 semester hours**

Prerequisites: Graduate standing and Level I & II requirements. An intensive professional development experience (1 day per week for 14 weeks) working in a school setting. Activities on site include assisting the classroom teacher in all areas of instruction, assessment, and classroom management. This course is to be taken during the semester immediately preceding Practicum II (student teaching). This course must be taken in conjunction with methods of instruction course in specific content area. Assignments from the methods course(s) may be completed in the Practicum setting, and experiences in the school guide the methods course activities and discussions. Activities to acquire research skills will be included.

**SEC ED 5990 Practicum II: Site Based Experience: 8 semester hours**

Prerequisites: SEC ED 5989 with a B- or better and appropriate curriculum and methods course in the teaching field. Teacher candidates spend time in schools engaged in various capacities to improve student learning within small group instruction, whole class teaching, lesson planning and special programs to demonstrate proficiency on all MoSPE standards. Teacher candidates collect data for a research project.

**SEC ED 5999 Biology Teaching Advanced Seminar: 3 semester hours**

Prerequisites: SEC ED 4985 and SEC ED 4989. An advanced seminar in the analysis and synthesis of current research and best practice of science curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

**SEC ED 6404 Seminar: 1-10 semester hours****SEC ED 6415 Curriculum Leadership in Education: 3 semester hours**

Prerequisites: ED PSY 6030 or consent of instructor. Strategies for developing and implementing up-to-date curriculum. Using current research of innovative programs and new approaches, students will develop skills in analyzing and evaluating content area curriculum according to Common Core and national content standards in order to lead curriculum development in an educational setting.

**SEC ED 6416 Curriculum Design for Educational Programs: 3 semester hours**

Prerequisites: ED PSY 6030, SEC ED 6415 or consent of instructor. Principles of curriculum design and development for a formal or informal educational setting. Students may choose to develop an integrated or differentiated curriculum using the Common Core or national content standards. Compare and contrast curriculum design approaches while connecting curriculum and instruction practices to learner performance.

**SEC ED 6420 Improving Teaching and Learning: 3 semester hours**

Prerequisites: ED PSY 6030, or consent of instructor. Students will learn to improve their teaching effectiveness through the use of various models of instruction that are based on current learning theories and research in teaching methodology to improve the achievement of diverse learners. Focus on inquiry models that prepare educators for effectively teaching the Common Core standards. Prior instructional experience is recommended.

**SEC ED 6428 Secondary School Curriculum Reform In The Life Sciences: 1-4 semester hours**

Prerequisites: Graduate Standing. Field-based experiences in improving the district level secondary school science program, with special attention to the life sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. To reflect the number of modules selected by the student, this course may be repeated for a maximum of 4 credit hours.

**SEC ED 6441 Problems And Research In Teaching Secondary School Science: 3 semester hours**

Prerequisites: Graduate Standing & science education experience A thorough examination of research related to middle and secondary school science instruction with particular emphasis on innovative programs. Includes methods of investigation and techniques for interpreting the professional research literature.

**SEC ED 6485 Secondary School Curriculum Reform In The Physical Sciences: 1-4 semester hours**

Prerequisite: Graduate Standing. Field-based experiences in improving the district-level secondary school science program, with special attention to the physical sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. To reflect the number of modules selected by the student, this course may be repeated for a maximum of 4 credit hours.

**SEC ED 6490 Internship: 1-10 semester hours**

Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**SEC ED 6497 Problems: 1-10 semester hours**



## Courses

### **SEC ED 3240 Curriculum And Methods Of Teaching Physical Sciences: 3 semester hours**

Prerequisites: TCH ED 3310 or TCH ED 5310 and a near major in the subject area. A study of the scope and sequence of the physical science courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of science. To be taken concurrently with Practicum I. This course must be completed in residence.

### **SEC ED 4011 The Curriculum And Methods Of Teaching History And Social Studies: 3 semester hours**

Prerequisites: Admission to the Teacher Education Program and completion of all Level II courses. Must be taken concurrently with SEC ED 4989. A study of the scope and sequence of history and social studies courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. May not count toward history hours required for history major. Must be completed prior to student teaching. This course must be completed in residence. Not available for graduate credit.

### **SEC ED 4012 Social Studies Teaching Seminar: 1 semester hour**

Prerequisites: SEC ED 4989. Must be taken concurrently with student teaching. Addresses the application of teaching strategies and instructional technology in the classroom setting. Offered concurrently with Secondary School Student Teaching, SEC ED 4990. Not available for graduate credit.

### **SEC ED 4013 United States History For The Secondary Classroom: 3 semester hours**

Prerequisites: Admission to the Teacher Education Program. TCH ED 3310 or consent of the instructor. This course is required for Social Studies certification. Adapts the themes and subject matter of American history to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting themes of American history, on expanding bibliography, and on choosing methods of inquiry for use in an interactive classroom. Cannot be counted towards the minimum 39-hour history major requirement, but can be counted towards the 45 hour maximum and for Social Studies certification. Not available for graduate credit.

### **SEC ED 4090 American Government For The Secondary Classroom: 3 semester hours**

Same as POL SCI 4090. Prerequisites: POL SCI 4090/ SEC ED 4090 must be taken concurrently with SEC ED 4011 except with special consent of the School Studies Coordinator. Adapts the themes and subject matter of American Government to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting methods of inquiry for use in an interactive classroom. Can be counted towards the Political Science major requirement, but not the American Politics subgroup. Counts towards Social Studies certification. Not available for graduate credit.

### **SEC ED 4320 Classroom Management: 3 semester hours**

Same as ECH ED 4320, ELE ED 4320. Prerequisites: Level I and II courses or consent of instructor. Understanding classroom management as the development of engaging instruction that establishes healthy and culturally appropriate teacher-student relationships, builds successful classroom community and enhances student learning. Participants develop a culturally relevant classroom management plan that includes rules, procedures, expected behaviors and uses problem solving strategies to resolve behavior problems. Emphasis is on the teacher developing the social competence of Pre K-12 students within culturally diverse classrooms and engaging families in supportive interactions.

### **SEC ED 4589 Curriculum And Methods Of Teaching Foreign Languages: 3 semester hours**

Same as FGN LANG 4589. Prerequisites: TCH ED 3310 or TCH ED 5310 and passing the departmental language skill test. A study of the scope and sequence of the foreign language courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of foreign language. To be taken prior to student teaching. This course must be completed in residence. Not available for graduate credit.

### **SEC ED 4590 Foreign Language Teaching Seminar: 2 semester hours**

Same as FGN LANG 4589. Prerequisite: Concurrent enrollment in SEC ED 4990 or consent of instructor. A practicum course in the teaching of foreign languages. Review and explanation of drills, dialogues, and a variety of classroom techniques, oral and written. A continuation of SEC ED 4589, Curriculum & Methods, with an emphasis on specific practical skills. To be taken concurrently with SEC ED 4990, Student Teaching. Not available for graduate credit.

### **SEC ED 4646 The Curriculum And Methods Of Teaching Math: 3 semester hours**

Prerequisites: Admission to the Teacher Education Program and completion of all Level II courses. Must be taken concurrently with SEC ED 4989. A study of the scope and sequence of the mathematics courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of mathematics. To be taken prior to student teaching. This course must be completed in residence. Not available for graduate credit.

### **SEC ED 4648 Mathematics Teaching Seminar: 2 semester hours**

Prerequisites: SEC ED 4989. Must be taken concurrently with SEC ED 4990. A seminar in the integration of mathematics curricula, Educational philosophy, teaching strategies, and instructional technology in the classroom setting. Not available for graduate credit.

### **SEC ED 4837 Chemistry/Physics Teaching Seminar: 2 semester hours**

Prerequisites: SEC ED 3240 and SEC ED 4989. A seminar to accompany practice teaching covering integration of physical science curricula and methods into the classroom setting. To be taken concurrently with SEC ED 4990. Two-hour discussion per week.

### **SEC ED 4880 Writing For Teachers: 3 semester hours**

Prerequisite: ENGL 3090 or junior level English. Same as ENGL 4880. Writing for Teachers is an English-education course that supports writing across the curriculum for both pre-service English and content area teachers. Teacher candidates learn writing theories and literacy strategies to help their future students construct meaning from their discipline. The course works best for those who are completing level II or beginning level III education courses. The course counts toward the Certificate in Writing.



**SEC ED 4885 The Curriculum And Methods Of Teaching English: 3 semester hours**

Prerequisites: Completion of Level II education courses and a near major in English. A study of the scope and sequence of the English courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. The course prepares students for reflective teaching by relating course readings to field experiences and theory to practice. To be taken prior to student teaching and concurrently with Practicum I, SEC ED 4989.

**SEC ED 4886 The Curriculum and Methods of Teaching Speech and Theatre: 3 semester hours**

Same as TH DAN 4886. Prerequisites: TCH ED 3310 or TCH ED 5310; students must be within three hours of completing a major in either Communications or Theatre, with 15-18 hours completed in the other subject area. A study in the scope and sequence of the Speech and Theatre courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. The course prepares students for reflective teaching by relating course readings to field experience and theory to practice. To be taken prior to student teaching and concurrently with SEC ED 4989; Secondary Education Professional Internship. This course must be completed in residence. Not available for graduate credit.

**SEC ED 4888 English Teaching Seminar: 2 semester hours**

Prerequisites: SEC ED 4885 and a near major in the subject area. A seminar in the integration of English curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with Practicum II SEC ED 4990. Not available for graduate credit.

**SEC ED 4985 Curriculum And Methods Of Teaching Life Sciences: 4 semester hours**

Prerequisites: TCH ED 3310 or TCH ED 5310 and a near major in biology. A study of the scope and sequence of the life science courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. The analysis of teaching/learning and field experience observations in secondary school classrooms will be integrated into classroom activities and discussions. Take concurrently with SEC ED 4989. This course must be completed in residence.

**SEC ED 4986 Laboratory In Teaching Life Sciences: 2 semester hours**

Prerequisite: TCH ED 3310. Discussion, development, utilization, and evaluation of equipment, materials, and techniques applicable to instruction in the life sciences.

**SEC ED 4989 Practicum I: Site Based Experience: 3 semester hours**

Prerequisites: Level I & II requirements. This course is an intensive professional development experience (1 day per week for 14 weeks) working in a school setting. Activities on site include assisting the classroom teaching in all areas of instruction, assessment, and classroom management. This course is to be taken during the semester immediately preceding Practicum II (student teaching). This course must be taken in conjunction with methods of instruction course in specific content area. Assignments from the methods course(s) may be completed in the Practicum setting, and experiences in the school guide the methods course activities and discussions. Not available for graduate credit.

**SEC ED 4990 Practicum II: Site Based Experience: 12 semester hours**

Prerequisites: SEC ED 4989 and appropriate curriculum and methods course in the teaching field. Teacher candidates spend time in schools engaged in various capacities to improve student learning within small group instruction, whole class teaching, lesson planning and special programs to demonstrate proficiency on all MoSPE standards. Not available for graduate credit.

**SEC ED 4993 Student Teaching In Music K-6: 6 semester hours**

Prerequisites: Level I and Level II Education Courses. \*MUS ED 3570, \*MUSIC ED 3670/ SEC ED 3670, PRACTM 2180. \*MUS ED 3680 \*MUS ED 3700 (Instrumental emphasis majors); MUS ED 3290, \*MUS ED 3690 / SEC ED 3690, \*MUS ED 3710(Choral/Vocal emphasis majors); and admission to student teaching. Must be taken "in block" with SEC ED 3294 and must immediately precede it in the semester. Clinical teaching experience in music education settings in the schools under university and school supervision with seminar included. Required of all majors in music education. \*Courses must be taken in residence. Not available for graduate credit.

**SEC ED 4994 Student Teaching In Music, 7-12: 6 semester hours**

Prerequisite: SEC ED 4993. Must be taken "in block" with SEC ED 4993 and must immediately follow it in the semester. Clinical Teaching experience in music education settings in the schools under university and school supervision with seminar included. Assignments will be in different settings from those of SEC ED 4993. Required of all majors in music education. Courses must be taken in residence. Not available for graduate credit.

**SEC ED 4996 Practicum II: Site Based Experience in Elementary Art: 6 semester hours**

Prerequisites: ART ED 4273, SEC ED 4989, 45 hours of Studio Art, and 15 hours of Art History. Intensive clinical teaching experience under university and school supervision, with seminar included. Must be taken "in block" with SEC ED 4997. Not available for graduate credit.

**SEC ED 4997 Practicum II: Site Based Experience in Secondary Art: 6 semester hours**

Prerequisites: ART ED 4273, SEC ED 4989, 45 hours of Studio Art, and 15 hours of Art History. Clinical teaching experience under university and school supervision in middle/junior high and/or high school, with seminar included. Must be taken in block with SEC ED 4996. Not available for graduate credit.

**SEC ED 4999 Biology Science Teaching Seminar: 3 semester hours**

Prerequisites: SEC ED 4985 and SEC ED 4986. The application of Educational philosophy, science curriculum, teaching strategies and instructional technology in the classroom setting. Offered concurrently with Secondary School Student Teaching, SEC ED 4990. Not available for graduate credit.

**SEC ED 5000 Teacher Practicum Research: 1 semester hour**

Prerequisites: Admission into Student Teaching. Students conduct research on their own teaching in order to modify their instruction, curriculum and assessment practices. Concurrent enrollment in Sec Ed 4990, Secondary Student Teaching.

**SEC ED 5012 Social Studies Teaching Advanced Seminar: 2 semester hours**

Prerequisites: SEC ED 4011 An advanced seminar in the analysis and synthesis of current research and best practice of social studies curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

**SEC ED 5374 Foreign Language Teaching Advanced Seminar: 2 semester hours**

Prerequisites: SEC ED 4589 or FGN LANG 4589. An advanced seminar in the analysis and synthesis of current research and best practice of foreign language curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

**SEC ED 5648 Mathematics Teaching Advanced Seminar: 2 semester hours**

Prerequisites: SEC ED 4646. An advanced seminar in the analysis and synthesis of current research and best practice of mathematics curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

**SEC ED 5888 English Teaching Advanced Seminar: 2 semester hours**

Prerequisites: SEC ED 4885. An advanced seminar in the analysis and synthesis of current research and best practice of English curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

**SEC ED 5989 Practicum I: Site Based Experience: 2 semester hours**

Prerequisites: Graduate standing and Level I & II requirements. An intensive professional development experience (1 day per week for 14 weeks) working in a school setting. Activities on site include assisting the classroom teacher in all areas of instruction, assessment, and classroom management. This course is to be taken during the semester immediately preceding Practicum II (student teaching). This course must be taken in conjunction with methods of instruction course in specific content area. Assignments from the methods course(s) may be completed in the Practicum setting, and experiences in the school guide the methods course activities and discussions. Activities to acquire research skills will be included.

**SEC ED 5990 Practicum II: Site Based Experience: 8 semester hours**

Prerequisites: SEC ED 5989 with a B- or better and appropriate curriculum and methods course in the teaching field. Teacher candidates spend time in schools engaged in various capacities to improve student learning within small group instruction, whole class teaching, lesson planning and special programs to demonstrate proficiency on all MoSPE standards. Teacher candidates collect data for a research project.

**SEC ED 5999 Biology Teaching Advanced Seminar: 3 semester hours**

Prerequisites: SEC ED 4985 and SEC ED 4989. An advanced seminar in the analysis and synthesis of current research and best practice of science curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

**SEC ED 6404 Seminar: 1-10 semester hours****SEC ED 6415 Curriculum Leadership in Education: 3 semester hours**

Prerequisites: ED PSY 6030 or consent of instructor. Strategies for developing and implementing up-to-date curriculum. Using current research of innovative programs and new approaches, students will develop skills in analyzing and evaluating content area curriculum according to Common Core and national content standards in order to lead curriculum development in an educational setting.

**SEC ED 6416 Curriculum Design for Educational Programs: 3 semester hours**

Prerequisites: ED PSY 6030, SEC ED 6415 or consent of instructor. Principles of curriculum design and development for a formal or informal educational setting. Students may choose to develop an integrated or differentiated curriculum using the Common Core or national content standards. Compare and contrast curriculum design approaches while connecting curriculum and instruction practices to learner performance.

**SEC ED 6420 Improving Teaching and Learning: 3 semester hours**

Prerequisites: ED PSY 6030, or consent of instructor. Students will learn to improve their teaching effectiveness through the use of various models of instruction that are based on current learning theories and research in teaching methodology to improve the achievement of diverse learners. Focus on inquiry models that prepare educators for effectively teaching the Common Core standards. Prior instructional experience is recommended.

**SEC ED 6428 Secondary School Curriculum Reform In The Life Sciences: 1-4 semester hours**

Prerequisites: Graduate Standing. Field-based experiences in improving the district level secondary school science program, with special attention to the life sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. To reflect the number of modules selected by the student, this course may be repeated for a maximum of 4 credit hours.

**SEC ED 6441 Problems And Research In Teaching Secondary School Science: 3 semester hours**

Prerequisites: Graduate Standing & science education experience A thorough examination of research related to middle and secondary school science instruction with particular emphasis on innovative programs. Includes methods of investigation and techniques for interpreting the professional research literature.

**SEC ED 6485 Secondary School Curriculum Reform In The Physical Sciences: 1-4 semester hours**

Prerequisite: Graduate Standing. Field-based experiences in improving the district-level secondary school science program, with special attention to the physical sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. To reflect the number of modules selected by the student, this course may be repeated for a maximum of 4 credit hours.

**SEC ED 6490 Internship: 1-10 semester hours**

Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**SEC ED 6497 Problems: 1-10 semester hours**

## Sociology

### Courses

**SOC 1010 Introduction To Sociology: 3 semester hours**

An introduction to sociological approaches to human behavior including types of social organizations, patterns of social interaction, and social influences on individual conduct.

**SOC 1040 Social Problems: 3 semester hours**

Conditions defined by society as social problems, as well as potential solutions, are examined from various sociological perspectives. Emphasis is given to problem issues prevalent in metropolitan settings. Analyses focus on victims and beneficiaries of both problem conditions and alternative solutions.

**SOC 1051 Sport, Culture, and Society: 3 semester hours**

SAME AS ANTHRO 1051. What is the relationship between sport, culture, and society? This course takes a critical and analytical approach to the relationship between sport and socio-cultural issues and institutions: values, education, socialization, deviance, violence, inequality, the mass media, and economics. Students will investigate the functions of sport in various cultures and societies, analyze the relationship between sport and social problems, and develop policy recommendations that address these issues.

**SOC 1061 Religion in Contemporary Society: 3 semester hours**

This course covers the impact of religion on political, social, cultural, and economic institutions. It examines the role of religion in contemporary social life, including the relationship between gender, ethnicity, race, class and religion; the contested place of religion in secularization and modernization; and the role of religion in political conflict.

**SOC 1091 Introductory Topics in Sociology: 3 semester hours**

This course features special and current topics at the introductory level in the field of sociology. Examines the basic concepts and provides an understanding of the development of new trends and areas of study. May be repeated provided topic is different.

**SOC 1241 Globalization and Social Change: 3 semester hours**

Introduces sociological approaches to globalization. Covers sociological concepts such as modernization, Westernization, global capitalism, and the information society. Themes include global governance and transnational society, the global diffusion of American popular culture and consumer culture, and the role of new media. Also discusses the anti-globalization movement and forms of social resistance.

**SOC 1999 The City: 3 semester hours**

This course explores the central role of cities in the modern world. Covers processes of urbanization such as immigration, segregation and ghettoization, suburbanization, and sprawl. Explores the consequences of urban inequality and issues related to race and ethnicity, class, and gender in an urban context. Also covers urban landscapes, demographics, and lifestyles; and cities as centers of music and other forms of popular culture.

**SOC 2102 Introduction To Gender Studies: 3 semester hours**

Same as GS 2102, SOC WK 2102, and HIST 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

**SOC 2103 Gender Roles In Society: 3 semester hours**

Prerequisite: SOC 1010. The study of social processes through which gender roles are developed and acquired; the impact of gender roles on personal identity and social conduct; the relationship between gender roles and social inequality; and individual and social consequences of changing gender roles in contemporary society.

**SOC 2160 Social Psychology: 3 semester hours**

Same as PSYCH 2160. Prerequisite: PSYCH 1003 or SOC 1010. This course examines the behavior, thoughts, and feelings of individuals in their social environments. The content focuses not only on how people relate to one another, but also on the processes affecting their interactions with others. Specific topics include the self, social judgments, attitudes and persuasion, helping behavior, prejudice, aggression, attraction, conformity and obedience, and group processes. All Psychology majors taking this course instead of PSYCH 2270 must complete it with a grade of C- or higher.

**SOC 2180 Alcohol, Drugs And Society: 3 semester hours**

Same as CRIMIN 2180. Prerequisite: SOC 1010 or PSYCH 1003. This course examines the medical, legal and social aspects of alcohol and drug use. Medical aspects considered include treatment approaches and the role of physicians in controlling such behavior. In the legal realm, past and present alcohol and drug laws are explored. Cultural and social influences on alcohol and drug use are discussed.

**SOC 2192 Special Topics in Sociology: 3 semester hours**

This course focuses on a specific society or group of societies utilizing sociological approaches. Examines environmental, economic, social, political, ethnic, religious, linguistic and/or cultural domains. Students are exposed to basic sociological concepts for understanding diverse societies in their historical and/or contemporary contexts. May be repeated provided topic is different.

**SOC 2200 Languages and World View: 3 semester hours**

Same as FGN LANG 2100 and ANTHRO 2100. Prerequisites: Completion of two semesters of one foreign language at the college level. This course investigates the extent to which peoples' linguistic and cultural background informs their understanding of the world. Experts on a variety of major Western and non-Western languages will introduce students to differences in ideas about time, space, human relationships, and other issues based on language. The course will also analyze common cultural misunderstandings among native speakers of English and speakers of other languages.

**SOC 2201 Deviance and Society: 3 semester hours**

The study of traits and behaviors that violate social norms and elicit negative reactions. Explores the establishment of categories of deviance; the motivations behind deviant behavior; the identification of individuals and groups as deviant; the effects of institutionalization and social control upon the deviant; and the efforts of deviants to eradicate the label society has placed upon them.

**SOC 2202 Urban Sociology: 3 semester hours**

Covers classical works and contemporary theories in urban sociology from the nineteenth to the twenty-first centuries. Examines urbanism and community, forms and functions of cities, inequality and social difference, gender and sexuality, globalization and urban change, immigration and its impact on cities, and urban exclusion/social resistance. Includes reading well-known ethnographic works on such topics as sex work, homelessness, drug users and crackhouses, life in corner bars, gang members, and other alternative subcultures.

**SOC 2224 Marriage And The Family: 3 semester hours**

Same as GS 3224. The study of patterns of close relationships, and how these relationships are influenced by larger social forces. Topics include love, dating, mate selection, cohabitation, alternative lifestyles, working families, parenting, single mothers, families in crisis, domestic violence, and divorce. Universal and variable aspects of family organization, family role systems, and changes in family social structure are considered.



**SOC 2280 Technology And Society: 3 semester hours**

Examines the role of technology in the development of today's industrial and post-industrial societies. Topics include the social and cultural origins of technological innovation; the connection between technology and urbanization; and the impact of technological change on beliefs and values. Outlines the transition from industrial society to the post-industrial "information society," and the role of technology in globalization.

**SOC 2316 Power, Ideology And Social Movements: 3 semester hours**

This course explores how power and ideology operate in the advanced modern world. It investigates the historical and institutional contexts that help explain uprisings and discontents in the twentieth and twenty-first centuries, such as the Occupy Wall Street movement, the political struggles in the Middle East, and the uprisings and social movements throughout Latin America. Topics include an overview of the key works of Marxist theory and major radical social thinkers. Among the issues examined is the potential for social movements to produce revolutionary action resulting in new social systems.

**SOC 2338 Health & Society: 3 semester hours**

Exploration of social dimensions and issues related to health and illness such as access to the health care delivery system; factors influencing prevention, utilization and compliance; changing relationships among health care providers and consumers; health care costs, trends, and cross-cultural variations.

**SOC 3210 Sociological Theory: 3 semester hours**

Prerequisite: SOC 1010 or consent of instructor. The nature of sociological theory. An investigation of theory from Comte through contemporary developments. Contributions made by theorists in related disciplines.

**SOC 3211 Language and Society: 3 semester hours**

Same as ANTHRO 3211. Prerequisites: ANTHRO 1011 or SOC 1010 or consent of instructor. Variable topics in the subfield of linguistic anthropology will be explored. The focus of the course may include study of communication as part of our evolutionary heritage, the use of language as an index of social and cultural change, language and gender, or other topics.

**SOC 3220 Social Statistics: 3 semester hours**

Same as ANTHRO 3220. Prerequisite: SOC 1010 or ANTHRO 1011 and MATH 1020 or MATH 1030. Issues and techniques of statistical analysis relevant to quantitative sociological research e.g. elementary probability, measurements of central tendency and dispersion, measures of relationships including linear regression and correlation, inferential and nonparametric statistics. The course includes an introduction to computer-based statistical analysis.

**SOC 3224 Families in Global Perspective: 3 semester hours**

Same as GS 3224. Prerequisites: SOC 1010 or consent of instructor. This course presents research from the fields of demography, sociology, economics, and public policy in order to develop a broader understanding of the causes and consequences of population aging, one of the major demographic changes faced by social institutions worldwide. Attention to the global diversity of human experiences by age, gender, socioeconomic status, and health.

**SOC 3230 Research Methods: 3 semester hours**

Prerequisites: SOC 1010 and satisfaction of mathematics proficiency requirement or consent of instructor. Research planning and interpretation, principles of research design, measurement, and sampling. Techniques for the collection, analysis, and presentation of data. The course also includes an introduction to the Statistical Package for the Social Sciences (SPSS) and lab exercises.

**SOC 3237 Japanese Popular Culture: 3 semester hours**

SAME AS ANTHRO 3237. Prerequisites: ANTHRO 1011. Through biographies, fiction, films, anime, manga, television, music, magazines, and other media, the course investigates a range of topics related to Japanese history, social diversity, subcultural identity, gender, demographic change, and media. The study of Japanese popular culture is ideal for understanding theoretical issues such as the construction of gender and sexuality, identity formation, nationalism, emerging youth cultures, and the processes of globalization and localization. Satisfies University cultural diversity requirements.

**SOC 3250 Sociology Of Victimization: 3 semester hours**

Same as GS 3250. Prerequisite: SOC 1010. This course examines the role of social factors in a wide range of kinds of victimization--crime, violence, natural disasters, accidents, disease, etc. The topic of social reactions to various kinds of victimization is also covered. Sociological theories of victimization are emphasized.

**SOC 3260 Social Interaction In Small Groups: 3 semester hours**

Prerequisites: SOC 2160 or PSYCH 2160 or consent of instructor. Analysis of human interaction with emphasis on group problem solving, group structure, and group process.

**SOC 3268 The Sociology Of Conflict: 3 semester hours**

Prerequisite: SOC 1010 or consent of instructor. The conditions under which social conflicts arise, develop, and are terminated (or in some cases resolved) are examined. The functions of different levels of conflict are studied to determine the potential effects and outcomes of planned intervention.

**SOC 3280 The Networked Society: 3 semester hours**

Prerequisites: SOC 1010, ANTHRO 1011, or introductory course in another social science, or consent of instructor. Explores the effects of modern information technology on societies worldwide. Covers the ways in which new technologies of communication have created increasingly networked local and global societies, as well as to the ways in which they have created new social problems.

**SOC 3291 Current Issues in Sociology: 3 semester hours**

Prerequisites: Prerequisite: SOC 1010 or ANTHRO 1011, or consent of instructor. Selected topics in sociology, with emphasis on current issues and trends in the field. May be repeated provided topic is different.

**SOC 3344 Problems Of Urban Community: 3 semester hours**

Prerequisite: SOC 1010, junior standing or consent of instructor. Issues of inequality and identity in cities, with emphasis on the consequences of urban growth; processes of class, racial, and ethnic group formation; and urban poverty. Also covers local community organization and politics, and the role of popular culture and religion in community identities.

**SOC 3600 Management and Organizational Behavior: 3 semester hours**

Same as MGMT 3600. Prerequisites: Junior standing and a 2.0 campus GPA. This course involves the study of the behavior of individuals and groups in an organizational setting. Specific topics examined include: motivation, leadership, organizational design, and conflict resolution, as well as basic coverage of management principles. In covering these topics, both classic and current perspectives are provided.

**SOC 4040 Survey Research Practicum for Sociology: 3 semester hours**

Prerequisite: Junior standing, SOC 3230, college-level statistics course, and consent of instructor. The execution of a sample survey, including establishing study objectives, sampling, questionnaire construction, interviewing, coding, data analysis, and presentation of results. May be repeated provided the course topic is different.



**SOC 4100 Introduction to Feminist and Gender Theory: 3 semester hours**

Same as GS 4100. Prerequisites: GS 2102. This class serves as an initial intellectual investigation into gendered ideologies (such as the effects of race, ethnicity, nationality, socioeconomic class, sexuality, and religion) and functions as a bridge to later advanced gender theory and methods courses. Topics include interdisciplinary feminist theories (with a focus on gender equality), including masculinity theory, queer theory, muted group theory, and other evolving frameworks.

**SOC 4150 Feminist Theory and Social Research: 3 semester hours**

Same as GS 4150. Prerequisites: GS 2102 and Junior Standing or consent of instructor. This course provides an in-depth examination of feminist theoretical contributions to social science research. We begin by examining the 20th century roots of contemporary feminist theories. With these foundations in place, we then shift to an investigation of how feminist theory has informed sociological research by examining current feminist understandings of gender, race, class and sexual inequalities across a range of contemporary social problems. Fulfills WGS feminist theory requirement.

**SOC 4160 Geographic Information Systems in Anthropology & Sociology: 4 semester hours**

Same as ANTHRO 4160. Prerequisites: ANTHRO 1005 or ANTHRO 1011 or ANTHRO 1019 or SOC 1010 or consent of instructor. Instruction in use of GIS software to record and analyze findings in archaeology, biological anthropology, cultural anthropology, and sociology. Emphasis is placed upon research design, development of data collection methodologies, and the use of GIS in describing and explaining human behavior and its relationship to the physical environment.

**SOC 4300 Communities And Crime: 3 semester hours**

Same as CRIMIN 4300. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the sources, consequences, and control of crime within communities. Emphasis on social and ecological theories of crime, and on population instability, family structure, and the concentration of poverty as causes of crime.

**SOC 4307 Community-Based Research in Sociology: 3 semester hours**

Prerequisites: Junior standing, SOC 3210, SOC 3230, and completion of junior-level writing requirement. An advanced course in qualitative/ethnographic modes of inquiry, building on research and analytical skills learned in previous courses. Some quantitative methods may supplement the research when appropriate. Students experience the process of discovery, representation, presentation, and justification based on fieldwork and/or archival research. The focus is on applying sociological knowledge to practical issues faced by communities and institutions in the St. Louis area. May be repeated provided the topic is different.

**SOC 4312 Sociology Of Wealth And Poverty: 3 semester hours**

Prerequisite: SOC 1010, junior standing or consent of instructor. Theory and research on social stratification and inequality in contemporary societies.

**SOC 4320 Forms Of Criminal Behavior: 3 semester hours**

Same as CRIMIN 4320. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Examination of major types of criminal behavior including violent, property, public order, and organizational offenses. Emphasis on theories of and responses to these crimes.

**SOC 4325 Gender, Crime & Justice: 3 semester hours**

Same as CRIMIN 4325 and GS 4325. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the role of gender in crime and in the justice system. Emphasis on gender differences in crime commission, criminal processing, and the employment of women in criminal justice agencies. Fulfills Criminology diversity requirement.

**SOC 4331 Qualitative Methods In Social Research: 3 semester hours**

Prerequisites: Junior Standing, SOC 3230, college-level statistics course; or consent of instructor. This course is devoted to qualitative methods including participant observation, ethnographic fieldwork, intensive interview, content analysis, and oral history. Considers the place of these kinds of techniques in social research, as well as the issues raised by them. Involves participation in individual or group research projects using one or more of the methods learned.

**SOC 4336 Sociology of Organizations: 3 semester hours**

Prerequisite: SOC 1010 and junior standing or consent of instructor. This course examines the internal and external forces that influence the structures, adaptive flexibility, and actions of public and private organizations and agencies. Specific foci include: organizational responses to opportunities, constraints, and contingencies in their surrounding environments; sources of conflict and impediments to organizational goal attainment; and strategies for increasing organizational effectiveness, efficiency, and chances for survival.

**SOC 4340 Race, Crime, And Justice: 3 semester hours**

Same as CRIMIN 4340. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the involvement of racial minorities in crime and the criminal justice system. Emphasis on group differences in offending, processing, victimization, and employment in criminal justice agencies. Fulfills CCJ diversity requirement.

**SOC 4350 Special Study: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports, and field work.

**SOC 4354 Sociology Of Business And Work Settings: 3 semester hours**

Prerequisite: SOC 1010, junior standing or consent of instructor. The sociology of work and occupations in America, Europe, and Asia; organization structures and worker participation; worker attitude, behaviors, and commitment; the socialization of the worker; determinants of worker behavior; social problems of work and business; and the impact of community on the work place and business behavior.

**SOC 4356 Sociology Of Education: 3 semester hours**

Prerequisite: SOC 1010 and junior standing, or consent of instructor. Education as a social institution, its role as an agent of socialization, and its effect upon the processes of social change and social mobility. The relationship between the school and its community.

**SOC 4360 Sociology Of Minority Groups: 3 semester hours**

Same as GS 4360. Prerequisites: SOC 1010 and junior standing or consent of instructor. The study of dominant-subordinate group relations. Religion, ethnicity, race, and gender as factors in the unequal distribution of power.

**SOC 4361 Social Gerontology: 3 semester hours**

Same as GERON 4361. Prerequisites: SOC 1010 and junior standing or consent of instructor. Topics include: Sociological theories of aging, technological and social change and its effects on the environment of older people, and prejudice and discrimination against the elderly.

**SOC 4365 Sociological Writing: 3 semester hours**

Prerequisites: SOC 1010, ENGL 3100 and Junior standing, or consent of instructor. This course offers directed practice in the interpretation and reporting of sociological research in a wide range of styles, including those appropriate for research reports, journal articles, policy papers, non-technical magazines, books and monographs, as well as oral reports to diverse consumers.

**SOC 4378 Selected Topics In Social Psychology: 1-3 semester hours**

Prerequisite: PSYCH 2160 or SOC 2160 or consent of instructor. Focused examination of selected issues, concepts and methods in the study of social interaction. May be taken twice for credit.

**SOC 4380 Advanced Topics in Sociology: 1-3 semester hours**

Prerequisites: SOC 1010 and junior standing or consent of instructor. Examination of a specific sociological topic of current relevance in the community. May be repeated provided the topic is different.

**SOC 4385 Internship In Sociology: 1-6 semester hours**

Prerequisites: Junior standing and consent of instructor. Students participate in supervised placements in positions related to the profession of Sociology.

**SOC 4600 Masculinities: 3 semester hours**

Same as GS 4600. Prerequisites: SOC 2102 or consent of instructor. This course examines men and masculinities through a critical lens, looking carefully at an institutionalized system of gender relations and practices that is assumed to be a natural phenomenon that is culturally universal. The course explores various masculine behaviors, myths, ideologies, and experiences so that students can consider the relationship between masculine practice and social power and delineate choices for future directions. The course is necessarily interdisciplinary and may utilize tools and methods from the social sciences and the humanities. Satisfies WGS gender theory requirement.

## Courses

**SOC 1010 Introduction To Sociology: 3 semester hours**

An introduction to sociological approaches to human behavior including types of social organizations, patterns of social interaction, and social influences on individual conduct.

**SOC 1040 Social Problems: 3 semester hours**

Conditions defined by society as social problems, as well as potential solutions, are examined from various sociological perspectives. Emphasis is given to problem issues prevalent in metropolitan settings. Analyses focus on victims and beneficiaries of both problem conditions and alternative solutions.

**SOC 1051 Sport, Culture, and Society: 3 semester hours**

SAME AS ANTHRO 1051. What is the relationship between sport, culture, and society? This course takes a critical and analytical approach to the relationship between sport and socio-cultural issues and institutions: values, education, socialization, deviance, violence, inequality, the mass media, and economics. Students will investigate the functions of sport in various cultures and societies, analyze the relationship between sport and social problems, and develop policy recommendations that address these issues.

**SOC 1061 Religion in Contemporary Society: 3 semester hours**

This course covers the impact of religion on political, social, cultural, and economic institutions. It examines the role of religion in contemporary social life, including the relationship between gender, ethnicity, race, class and religion; the contested place of religion in secularization and modernization; and the role of religion in political conflict.

**SOC 1091 Introductory Topics in Sociology: 3 semester hours**

This course features special and current topics at the introductory level in the field of sociology. Examines the basic concepts and provides an understanding of the development of new trends and areas of study. May be repeated provided topic is different.

**SOC 1241 Globalization and Social Change: 3 semester hours**

Introduces sociological approaches to globalization. Covers sociological concepts such as modernization, Westernization, global capitalism, and the information society. Themes include global governance and transnational society, the global diffusion of American popular culture and consumer culture, and the role of new media. Also discusses the anti-globalization movement and forms of social resistance.

**SOC 1999 The City: 3 semester hours**

This course explores the central role of cities in the modern world. Covers processes of urbanization such as immigration, segregation and ghettoization, suburbanization, and sprawl. Explores the consequences of urban inequality and issues related to race and ethnicity, class, and gender in an urban context. Also covers urban landscapes, demographics, and lifestyles; and cities as centers of music and other forms of popular culture.

**SOC 2102 Introduction To Gender Studies: 3 semester hours**

Same as GS 2102, SOC WK 2102, and HIST 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

**SOC 2103 Gender Roles In Society: 3 semester hours**

Prerequisite: SOC 1010. The study of social processes through which gender roles are developed and acquired; the impact of gender roles on personal identity and social conduct; the relationship between gender roles and social inequality; and individual and social consequences of changing gender roles in contemporary society.

**SOC 2160 Social Psychology: 3 semester hours**

Same as PSYCH 2160. Prerequisite: PSYCH 1003 or SOC 1010. This course examines the behavior, thoughts, and feelings of individuals in their social environments. The content focuses not only on how people relate to one another, but also on the processes affecting their interactions with others. Specific topics include the self, social judgments, attitudes and persuasion, helping behavior, prejudice, aggression, attraction, conformity and obedience, and group processes. All Psychology majors taking this course instead of PSYCH 2270 must complete it with a grade of C- or higher.

**SOC 2180 Alcohol, Drugs And Society: 3 semester hours**

Same as CRIMIN 2180. Prerequisite: SOC 1010 or PSYCH 1003. This course examines the medical, legal and social aspects of alcohol and drug use. Medical aspects considered include treatment approaches and the role of physicians in controlling such behavior. In the legal realm, past and present alcohol and drug laws are explored. Cultural and social influences on alcohol and drug use are discussed.

**SOC 2192 Special Topics in Sociology: 3 semester hours**

This course focuses on a specific society or group of societies utilizing sociological approaches. Examines environmental, economic, social, political, ethnic, religious, linguistic and/or cultural domains. Students are exposed to basic sociological concepts for understanding diverse societies in their historical and/or contemporary contexts. May be repeated provided topic is different.

**SOC 2200 Languages and World View: 3 semester hours**

Same as FGN LANG 2100 and ANTHRO 2100. Prerequisites: Completion of two semesters of one foreign language at the college level. This course investigates the extent to which peoples' linguistic and cultural background informs their understanding of the world. Experts on a variety of major Western and non-Western languages will introduce students to differences in ideas about time, space, human relationships, and other issues based on language. The course will also analyze common cultural misunderstandings among native speakers of English and speakers of other languages.

**SOC 2201 Deviance and Society: 3 semester hours**

The study of traits and behaviors that violate social norms and elicit negative reactions. Explores the establishment of categories of deviance; the motivations behind deviant behavior; the identification of individuals and groups as deviant; the effects of institutionalization and social control upon the deviant; and the efforts of deviants to eradicate the label society has placed upon them.

**SOC 2202 Urban Sociology: 3 semester hours**

Covers classical works and contemporary theories in urban sociology from the nineteenth to the twenty-first centuries. Examines urbanism and community, forms and functions of cities, inequality and social difference, gender and sexuality, globalization and urban change, immigration and its impact on cities, and urban exclusion/social resistance. Includes reading well-known ethnographic works on such topics as sex work, homelessness, drug users and crackhouses, life in corner bars, gang members, and other alternative subcultures.

**SOC 2224 Marriage And The Family: 3 semester hours**

Same as GS 3224. The study of patterns of close relationships, and how these relationships are influenced by larger social forces. Topics include love, dating, mate selection, cohabitation, alternative lifestyles, working families, parenting, single mothers, families in crisis, domestic violence, and divorce. Universal and variable aspects of family organization, family role systems, and changes in family social structure are considered.

**SOC 2280 Technology And Society: 3 semester hours**

Examines the role of technology in the development of today's industrial and post-industrial societies. Topics include the social and cultural origins of technological innovation; the connection between technology and urbanization; and the impact of technological change on beliefs and values. Outlines the transition from industrial society to the post-industrial "information society," and the role of technology in globalization.

**SOC 2316 Power, Ideology And Social Movements: 3 semester hours**

This course explores how power and ideology operate in the advanced modern world. It investigates the historical and institutional contexts that help explain uprisings and discontents in the twentieth and twenty-first centuries, such as the Occupy Wall Street movement, the political struggles in the Middle East, and the uprisings and social movements throughout Latin America. Topics include an overview of the key works of Marxist theory and major radical social thinkers. Among the issues examined is the potential for social movements to produce revolutionary action resulting in new social systems.

**SOC 2338 Health & Society: 3 semester hours**

Exploration of social dimensions and issues related to health and illness such as access to the health care delivery system; factors influencing prevention, utilization and compliance; changing relationships among health care providers and consumers; health care costs, trends, and cross-cultural variations.

**SOC 3210 Sociological Theory: 3 semester hours**

Prerequisite: SOC 1010 or consent of instructor. The nature of sociological theory. An investigation of theory from Comte through contemporary developments. Contributions made by theorists in related disciplines.

**SOC 3211 Language and Society: 3 semester hours**

Same as ANTHRO 3211. Prerequisites: ANTHRO 1011 or SOC 1010 or consent of instructor. Variable topics in the subfield of linguistic anthropology will be explored. The focus of the course may include study of communication as part of our evolutionary heritage, the use of language as an index of social and cultural change, language and gender, or other topics.

**SOC 3220 Social Statistics: 3 semester hours**

Same as ANTHRO 3220. Prerequisite: SOC 1010 or ANTHRO 1011 and MATH 1020 or MATH 1030. Issues and techniques of statistical analysis relevant to quantitative sociological research e.g. elementary probability, measurements of central tendency and dispersion, measures of relationships including linear regression and correlation, inferential and nonparametric statistics. The course includes an introduction to computer-based statistical analysis.

**SOC 3224 Families in Global Perspective: 3 semester hours**

Same as GS 3224. Prerequisites: SOC 1010 or consent of instructor. This course presents research from the fields of demography, sociology, economics, and public policy in order to develop a broader understanding of the causes and consequences of population aging, one of the major demographic changes faced by social institutions worldwide. Attention to the global diversity of human experiences by age, gender, socioeconomic status, and health.

**SOC 3230 Research Methods: 3 semester hours**

Prerequisites: SOC 1010 and satisfaction of mathematics proficiency requirement or consent of instructor. Research planning and interpretation, principles of research design, measurement, and sampling. Techniques for the collection, analysis, and presentation of data. The course also includes an introduction to the Statistical Package for the Social Sciences (SPSS) and lab exercises.

**SOC 3237 Japanese Popular Culture: 3 semester hours**

SAME AS ANTHRO 3237. Prerequisites: ANTHRO 1011. Through biographies, fiction, films, anime, manga, television, music, magazines, and other media, the course investigates a range of topics related to Japanese history, social diversity, subcultural identity, gender, demographic change, and media. The study of Japanese popular culture is ideal for understanding theoretical issues such as the construction of gender and sexuality, identity formation, nationalism, emerging youth cultures, and the processes of globalization and localization. Satisfies University cultural diversity requirements.

**SOC 3250 Sociology Of Victimization: 3 semester hours**

Same as GS 3250. Prerequisite: SOC 1010. This course examines the role of social factors in a wide range of kinds of victimization--crime, violence, natural disasters, accidents, disease, etc. The topic of social reactions to various kinds of victimization is also covered. Sociological theories of victimization are emphasized.

**SOC 3260 Social Interaction In Small Groups: 3 semester hours**

Prerequisites: SOC 2160 or PSYCH 2160 or consent of instructor. Analysis of human interaction with emphasis on group problem solving, group structure, and group process.



**SOC 3268 The Sociology Of Conflict: 3 semester hours**

Prerequisite: SOC 1010 or consent of instructor. The conditions under which social conflicts arise, develop, and are terminated (or in some cases resolved) are examined. The functions of different levels of conflict are studied to determine the potential effects and outcomes of planned intervention.

**SOC 3280 The Networked Society: 3 semester hours**

Prerequisites: SOC 1010, ANTHRO 1011, or introductory course in another social science, or consent of instructor. Explores the effects of modern information technology on societies worldwide. Covers the ways in which new technologies of communication have created increasingly networked local and global societies, as well as to the ways in which they have created new social problems.

**SOC 3291 Current Issues in Sociology: 3 semester hours**

Prerequisites: Prerequisite: SOC 1010 or ANTHRO 1011, or consent of instructor. Selected topics in sociology, with emphasis on current issues and trends in the field. May be repeated provided topic is different.

**SOC 3344 Problems Of Urban Community: 3 semester hours**

Prerequisite: SOC 1010, junior standing or consent of instructor. Issues of inequality and identity in cities, with emphasis on the consequences of urban growth; processes of class, racial, and ethnic group formation; and urban poverty. Also covers local community organization and politics, and the role of popular culture and religion in community identities.

**SOC 3600 Management and Organizational Behavior: 3 semester hours**

Same as MGMT 3600. Prerequisites: Junior standing and a 2.0 campus GPA. This course involves the study of the behavior of individuals and groups in an organizational setting. Specific topics examined include: motivation, leadership, organizational design, and conflict resolution, as well as basic coverage of management principles. In covering these topics, both classic and current perspectives are provided.

**SOC 4040 Survey Research Practicum for Sociology: 3 semester hours**

Prerequisite: Junior standing, SOC 3230, college-level statistics course, and consent of instructor. The execution of a sample survey, including establishing study objectives, sampling, questionnaire construction, interviewing, coding, data analysis, and presentation of results. May be repeated provided the course topic is different.

**SOC 4100 Introduction to Feminist and Gender Theory: 3 semester hours**

Same as GS 4100. Prerequisites: GS 2102. This class serves as an initial intellectual investigation into gendered ideologies (such as the effects of race, ethnicity, nationality, socioeconomic class, sexuality, and religion) and functions as a bridge to later advanced gender theory and methods courses. Topics include interdisciplinary feminist theories (with a focus on gender equality), including masculinity theory, queer theory, muted group theory, and other evolving frameworks.

**SOC 4150 Feminist Theory and Social Research: 3 semester hours**

Same as GS 4150. Prerequisites: GS 2102 and Junior Standing or consent of instructor. This course provides an in-depth examination of feminist theoretical contributions to social science research. We begin by examining the 20th century roots of contemporary feminist theories. With these foundations in place, we then shift to an investigation of how feminist theory has informed sociological research by examining current feminist understandings of gender, race, class and sexual inequalities across a range of contemporary social problems. Fulfills WGS feminist theory requirement.

**SOC 4160 Geographic Information Systems in Anthropology & Sociology: 4 semester hours**

Same as ANTHRO 4160. Prerequisites: ANTHRO 1005 or ANTHRO 1011 or ANTHRO 1019 or SOC 1010 or consent of instructor. Instruction in use of GIS software to record and analyze findings in archaeology, biological anthropology, cultural anthropology, and sociology. Emphasis is placed upon research design, development of data collection methodologies, and the use of GIS in describing and explaining human behavior and its relationship to the physical environment.

**SOC 4300 Communities And Crime: 3 semester hours**

Same as CRIMIN 4300. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the sources, consequences, and control of crime within communities. Emphasis on social and ecological theories of crime, and on population instability, family structure, and the concentration of poverty as causes of crime.

**SOC 4307 Community-Based Research in Sociology: 3 semester hours**

Prerequisites: Junior standing, SOC 3210, SOC 3230, and completion of junior-level writing requirement. An advanced course in qualitative/ethnographic modes of inquiry, building on research and analytical skills learned in previous courses. Some quantitative methods may supplement the research when appropriate. Students experience the process of discovery, representation, presentation, and justification based on fieldwork and/or archival research. The focus is on applying sociological knowledge to practical issues faced by communities and institutions in the St. Louis area. May be repeated provided the topic is different.

**SOC 4312 Sociology Of Wealth And Poverty: 3 semester hours**

Prerequisite: SOC 1010, junior standing or consent of instructor. Theory and research on social stratification and inequality in contemporary societies.

**SOC 4320 Forms Of Criminal Behavior: 3 semester hours**

Same as CRIMIN 4320. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Examination of major types of criminal behavior including violent, property, public order, and organizational offenses. Emphasis on theories of and responses to these crimes.

**SOC 4325 Gender, Crime & Justice: 3 semester hours**

Same as CRIMIN 4325 and GS 4325. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the role of gender in crime and in the justice system. Emphasis on gender differences in crime commission, criminal processing, and the employment of women in criminal justice agencies. Fulfills Criminology diversity requirement.

**SOC 4331 Qualitative Methods In Social Research: 3 semester hours**

Prerequisites: Junior Standing, SOC 3230, college-level statistics course; or consent of instructor. This course is devoted to qualitative methods including participant observation, ethnographic fieldwork, intensive interview, content analysis, and oral history. Considers the place of these kinds of techniques in social research, as well as the issues raised by them. Involves participation in individual or group research projects using one or more of the methods learned.



**SOC 4336 Sociology of Organizations: 3 semester hours**

Prerequisite: SOC 1010 and junior standing or consent of instructor.

This course examines the internal and external forces that influence the structures, adaptive flexibility, and actions of public and private organizations and agencies. Specific foci include: organizational responses to opportunities, constraints, and contingencies in their surrounding environments; sources of conflict and impediments to organizational goal attainment; and strategies for increasing organizational effectiveness, efficiency, and chances for survival.

**SOC 4340 Race, Crime, And Justice: 3 semester hours**

Same as CRIMIN 4340. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the involvement of racial minorities in crime and the criminal justice system. Emphasis on group differences in offending, processing, victimization, and employment in criminal justice agencies. Fulfills CCJ diversity requirement.

**SOC 4350 Special Study: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports, and field work.

**SOC 4354 Sociology Of Business And Work Settings: 3 semester hours**

Prerequisite: SOC 1010, junior standing or consent of instructor. The sociology of work and occupations in America, Europe, and Asia; organization structures and worker participation; worker attitude, behaviors, and commitment; the socialization of the worker; determinants of worker behavior; social problems of work and business; and the impact of community on the work place and business behavior.

**SOC 4356 Sociology Of Education: 3 semester hours**

Prerequisite: SOC 1010 and junior standing, or consent of instructor. Education as a social institution, its role as an agent of socialization, and its effect upon the processes of social change and social mobility. The relationship between the school and its community.

**SOC 4360 Sociology Of Minority Groups: 3 semester hours**

Same as GS 4360. Prerequisites: SOC 1010 and junior standing or consent of instructor. The study of dominant-subordinate group relations. Religion, ethnicity, race, and gender as factors in the unequal distribution of power.

**SOC 4361 Social Gerontology: 3 semester hours**

Same as GERON 4361. Prerequisites: SOC 1010 and junior standing or consent of instructor. Topics include: Sociological theories of aging, technological and social change and its effects on the environment of older people, and prejudice and discrimination against the elderly.

**SOC 4365 Sociological Writing: 3 semester hours**

Prerequisites: SOC 1010, ENGL 3100 and Junior standing, or consent of instructor. This course offers directed practice in the interpretation and reporting of sociological research in a wide range of styles, including those appropriate for research reports, journal articles, policy papers, non-technical magazines, books and monographs, as well as oral reports to diverse consumers.

**SOC 4378 Selected Topics In Social Psychology: 1-3 semester hours**

Prerequisite: PSYCH 2160 or SOC 2160 or consent of instructor. Focused examination of selected issues, concepts and methods in the study of social interaction. May be taken twice for credit.

**SOC 4380 Advanced Topics in Sociology: 1-3 semester hours**

Prerequisites: SOC 1010 and junior standing or consent of instructor. Examination of a specific sociological topic of current relevance in the community. May be repeated provided the topic is different.

**SOC 4385 Internship In Sociology: 1-6 semester hours**

Prerequisites: Junior standing and consent of instructor. Students participate in supervised placements in positions related to the profession of Sociology.

**SOC 4600 Masculinities: 3 semester hours**

Same as GS 4600. Prerequisites: SOC 2102 or consent of instructor. This course examines men and masculinities through a critical lens, looking carefully at an institutionalized system of gender relations and practices that is assumed to be a natural phenomenon that is culturally universal. The course explores various masculine behaviors, myths, ideologies, and experiences so that students can consider the relationship between masculine practice and social power and delineate choices for future directions. The course is necessarily interdisciplinary and may utilize tools and methods from the social sciences and the humanities. Satisfies WGS gender theory requirement.

## Social Work

### Courses

**SOC WK 2000 Social Work And Social Issues: 3 semester hours**

Prerequisites: SOC 1010 or PSYCH 1003 Examination of the network of social programs and services developed in response to social problems in modern urban communities and the various roles and functions performed by the helping professions. Students will be introduced to basic values, skills, and training involved in a helping relationship as well as the characteristics of clients seeking help and professionals engaged in the helping process.

**SOC WK 2001 Social Work and Social Issues Lab: 1 semester hour**

Prerequisites: Simultaneous with SOC WK 2000. The lab session will be used for field trips to social agencies which will allow students to better understand the many roles social workers are involved in. This course is required for social work majors.

**SOC WK 2102 Introduction To Gender Studies: 3 semester hours**

Same as HIST 2102, SOC 2102, and GS 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

**SOC WK 2200 Social Welfare As A Social Institution: 3 semester hours**

Prerequisite: SOC WK 2000 or consent of instructor. A study of the: 1) development of social welfare service and the philosophy underlying the present practices and systems, 2) present social welfare programs with particular emphasis given to public income maintenance provisions, 3) special welfare needs of the black, elderly, women, indian and hispanic americans, and 4) Development of social work as a profession. This course may be taken by non-social work majors.

**SOC WK 2201 Social Welfare As A Social Institution Laboratory: 1 semester hour**

Prerequisites: Simultaneous with SOC WK 2200. The lab session will be used for field trips to social agencies. This course is required for all Social Work majors.

**SOC WK 2330 Asians In Migration: 3 semester hours**

This course is a comparative analysis of the social and cultural diversity of the peoples of East, South, and Southeast Asia. Study focuses on their reasons for migration and the extent and quality of the social and cultural connections they maintain to their homelands. Implications of these cultures for students in a variety of disciplines are explored. This course satisfies the cultural diversity requirement.

**SOC WK 3100 Introduction To Strategies for Social Work Practice: 3 semester hours**

Prerequisites: SOC WK 2200, SOC 1010 and PSYCH 1003 or permission of instructor. A presentation of basic knowledge, skills, and theory used for entry-level professional practice, such as problem assessment, interviewing skills, crisis intervention and referral procedures. The course objectives will also be to teach students how to help clients negotiate systems effectively, and to use resources, services, and opportunities.

**SOC WK 3210 Social Issues And Social Policy Development: 3 semester hours**

Prerequisites: SOC WK 2200, POL SCI 1100, and ECON 1000. The identification of issues concerning governmental provisions to meet contemporary social needs, with analysis of the principles and values underlying alternative solutions. A study of the processes by which citizen opinions and public policies evolve and are implemented in areas such as income maintenance, crime and delinquency, employment, family and child welfare, and public mental health.

**SOC WK 3410 Research Design In Social Work: 3 semester hours**

Prerequisites: Satisfaction of Math Proficiency requirement and either SOC 3220, CRIMIN 2220, or PSYCH 2201. Students explore research concepts and procedures (hypothesis testing, sampling, measurement, and design) emphasizing issues in social work research. Students learn to collect, analyze and present data.

**SOC WK 3510 Human Behavior In The Social Environment: 3 semester hours**

Prerequisites: BIOL 1012 and SOC 2160 or PSYCH 2160 or permission of instructor. This course will focus on the normative stages in the life span, and specifically, how human development is affected by the physical environment and social status characteristics. Empirical information and theoretical views on human development will be included. Human development will be viewed as a complex interaction of individual developmental stages with family, social, and community systems.

**SOC WK 3700 Diversity And Social Justice: 3 semester hours**

Same as GS 3700. Prerequisites: PSYCH 2160 or SOC 2160; and SOC WK 3100 taken prior or concurrently. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

**SOC WK 4110 Social Work Practice with Individuals, Families, and Groups: 3 semester hours**

Prerequisites: SOC WK 3100, SOC WK 3510, and SOC WK 3700 taken prior to or concurrently. This course continues the presentation of basic knowledge and practice skills for entry level professional practice begun in SOC WK 3100. It builds on the generalized helping model, incorporating specialized skills for working with specific groups of clients (e.g., children, aged, mentally ill, and physically handicapped), with families and small groups.

**SOC WK 4300 Social Work Practice with Communities: 3 semester hours**

Prerequisites: SOC WK 3210 taken prior to or concurrently, senior standing. Continuation of basic practice skills with emphasis given to analysis and intervention at the community level. Includes assessment of community assets and needs and the development of community-level interventions. Emphasis is also placed on helping the practitioner evaluate the impact of intervention.

**SOC WK 4350 Human Service Organizations: 3 semester hours**

Prerequisite: POL SCI 1100; PSYCH 2160 or SOC 2160 and admission to the BSW program or consent from instructor. This course seeks to help develop knowledge of organizational functioning and an understanding of organizational history, principles and philosophy of effective administration. Students develop theoretical and empirical understanding of groups and organizations, including concepts such as power and authority, organizational structure, goals, membership, leadership, motivation, technology and organizational culture. They will learn to develop a budget and to submit proposals for grant funding. Using a systemic perspective with organizations as settings for practice students learn to function in and through organizations.

**SOC WK 4376 Mental Health And Aging: 3 semester hours**

Same as GERON 4376 and PSYCH 4376. Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) This course provides a survey of theory and research in mental health issues for older populations, focusing on psychological and social aspects of mental health and impairment. The course details approaches to understanding prevalence, etiology, assessment, and treatment of the psychological disorders most commonly experienced by older adults, including anxiety, depression, delirium, and dementia, among others.

**SOC WK 4398 Child Maltreatment: A Multidisciplinary Approach: 3 semester hours**

SAME AS PSYCH 4398 and CAST 4398. Focuses on clinical aspects of child abuse with attention to identification, reporting, intervention and prevention. Perspectives from the disciplines of psychology and social work are provided.

**SOC WK 4601 Abused And Neglected Children: 3 semester hours**

Prerequisites: SOC WK 3510 or equivalent. This course explores the major concepts necessary for understanding abused and neglected children and their families. Emphasis is placed on (1) defining the problem, including societal stresses which contribute to the abuse and neglect; (2) examining existing practice methods; and (3) understanding the role of the social worker on interdisciplinary teams.

**SOC WK 4610 Intimate Partner Violence: 3 semester hours**

Same as GS 4610. Prerequisites: SOC WK 3510. Focuses on theoretical and empirical understanding of domestic violence in US society and social work practice with battered women and their families. Addresses direct services, community organizing, and public policy changes to help end violence against women. Relationships between violence against women and other forms of oppression (e.g., racism, economic exploitation, heterosexism and social class) are explored.

**SOC WK 4620 Addictions: Assessment And Intervention In Social Work Practice: 3 semester hours**

Prerequisites: SOC WK 4110 or SOC WK 5100 or equivalent, (or are taking concurrently), or consent of instructor. This class examines the interface of psychological, physical, social, and spiritual aspects of addiction. This practice class is designed to deepen students' abilities to address clients' issues related to addictions and addictive behaviors, including: prevention, assessment, and intervention. It builds on the generalized helping model within a systems perspective, and it introduces specialized skills for working with individuals, with specific groups of clients, with families, and with small groups.

**SOC WK 4630 Gender Issues in Social Work: 3 semester hours**

Same as GS 4630. Prerequisites: SOC WK 3700, GS 2102, or graduate standing. This course will help students become more sensitive to the social and welfare concerns based on gender. Topics may include work, education, family responsibilities, violence against women, and special health and mental health service needs. Emphasis will be placed on understanding how social action can be used to bring about positive change.

**SOC WK 4641 Crisis Intervention: 1 semester hour**

Prerequisites: SOC WK 4110 or SOC WK 5100 or equivalent (or are taking concurrently), or consent of instructor. This course introduces students to the theoretical framework as well as the skills needed to understand and engage in effective crisis intervention. Students will learn a specialized model for assessment and intervention with people in crisis and will have an opportunity to apply this model to a variety of case situations.

**SOC WK 4642 Non-Violent Crisis Intervention: 1 semester hour**

Prerequisites: Senior or Graduate Standing. Nonviolent Crisis Intervention is a nonharmful behavior management system designed to aid human service professionals in the management of disruptive and assaultive people. These techniques are used to reduce tension in agitated people, control anxiety during interventions, determine alternative approaches if a person becomes violent. Students will learn how to use nonverbal, paraverbal, verbal and physical intervention skills to maintain the best care and safety for clients.

**SOC WK 4643 Social Work Practice with Individuals with Development Disabilities: 1 semester hour**

Prerequisites: Senior Standing This evidence based course exposes students to the diverse issues related to the services and support needed by individuals with development issues. Students will explore the complex social contexts in which this population lives and the appropriate interventions to meet the unique challenges facing these individuals.

**SOC WK 4645 Social Work in Mental Health: 3 semester hours**

Prerequisites: SOC WK 3510 and SOC WK 4110 or the equivalent. The role of social work in the field of behavioral health has evolved over the last thirty years as the setting for service activity has shifted from inpatient facilities to community-based care and treatment. This course will integrate the basic components of good social work practice with the contemporary role of the social worker in the field of behavioral healthcare. This course will focus on practical applications of social work in the context of working with individuals and families dealing with mental health and/or addiction disorders with an emphasis on consumer empowerment and recovery.

**SOC WK 4670 Cross Cultural Perspectives On Social Policy: 3 semester hours**

Prerequisites: SOC WK 3210 or equivalent. This course examines social policies in different countries, which may include social insurance, social assistance, health care, and social services. Using a comparative framework, the course examines the nature of government involvement, and public and private sector relations. It examines adequacy, equity, inclusiveness, comprehensiveness, effectiveness, and efficiency of social policies in the countries being studied.

**SOC WK 4680 Introduction to Gerontological Practice: 3 semester hours**

Same as GERON 4680. Prerequisites: Advanced undergraduate or graduate standing. This course introduces key concepts and practices in the evaluation and care of older adults. It is intended for students considering aging-focused careers in the social service or healthcare fields. Topics include developmental and health-related theories of aging, functional and psychosocial aspects of aging, working with older adults in various service settings, multi and interdisciplinary team approaches, and basic standards of professional conduct that apply across professions.

**SOC WK 4800 Supervised Field Experience In Social Work I: 4 semester hours**

Prerequisite: SOC WK 3100, SOC WK 4110. SOC WK 4110 must be taken prior to or concurrently with SOC WK 4801; consent of instructor. This course provides students practice experience in social service agencies. Students work at the agencies approximately 20 hours per week. The purpose of this experience is to familiarize students with agency operations. Selection of the agency is based on student education needs.

**SOC WK 4801 Integrative Field Experience Seminar I: 2 semester hours**

Prerequisite: Consent of instructor and concurrent registration in SOC WK 4800. This seminar provides an opportunity for students to integrate previous course work with their experience in social work agencies. Classroom discussion will emphasize direct practice issues.

**SOC WK 4850 Supervised Field Experience In Social Work II: 4 semester hours**

Prerequisite: SOC WK 4800, SOC WK 4801 and consent of instructor this is a continuation of agency practice experience. Students work at the agency approximately 20 hours per week and continue at the same agency as SOC WK 4800 or change agencies with the consent of the instructor.

**SOC WK 4851 Integrative Field Seminar II: 2 semester hours**

Prerequisites: Consent of instructor and concurrent registration in SOC WK 4850. This seminar is a continuation of SOC WK 4801. Classroom discussion will emphasize administration and community organization issues.

**SOC WK 4900 Special Study: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent study through advanced readings in method and philosophy on a topic of particular interest, or field research in an agency.

**SOC WK 5100 Generalist Social Work Practice: 3 semester hours**

Prerequisites: SOC WK 4110 or equiv or admission to MSW program Using a problem-solving approach, students develop theoretical and empirical understanding and practical application of generalist social work methods. Students gain knowledge and skills that include interviewing, assessment, crisis and shortterm intervention, contracting, resource development, and case documentation needed for competent direct practice with diverse populations.

**SOC WK 5200 Social Policy And Social Services: 3 semester hours**

Prerequisites: SOC WK 3210 or POL SCI 2420 or POL SCI 3460 or equivalent or admission to the MSW program Covers the history and development of social welfare policies, legislative processes, and existing social welfare programs. Examines frameworks for social policy analysis, analyzes how social and economic conditions impact the process of social policy development and implementation, and introduces policy practice in social work.

**SOC WK 5300 Community Practice And Social Change: 3 semester hours**

Prerequisites: SOC WK 3300, or SOC 3344, or equivalent or admission to the MSW program Focuses on economic, social, and political theory and research on communities and social change. Examines conceptual models of community practice within the generalist model and develops skills in organizing, advocacy, and planning.

**SOC WK 5350 Social Work And Human Service Organizations: 3 semester hours**

Prerequisites: SOC WK 3510 and SOC WK 4300 or PSYCH 3318 or BUS AD 3611 or equivalent or admission to the MSW program. Students develop theoretical and empirical understanding of groups and organizations, including concepts such as power and authority, structure, goals, membership, leadership, motivation, technology and organizational culture. Using organizations as settings for social work practice and as targets for change, students learn strategies and skills for assessment and intervention.

**SOC WK 5410 Social Work Research Methods And Analysis I: 3 semester hours**

Prerequisites: SOC WK 3410 or SOC 3230 and SOC 3231 or equivalent and SOC 3220 or equivalent or admission to MSW program. The first of a two-course sequence designed to provide students with the knowledge base and skills for using scientific method to advance social practice, knowledge, and theory. Focuses on research methods at different levels (e.g., individual, group, organization, and community) and critical analysis and synthesis of academic literature necessary for effective, evidence-based social work practice. Covers quantitative and qualitative methods, research design, sampling, measurement, use of results, impact of research, and ethical considerations.

**SOC WK 5450 Social Work Research Methods And Analysis II: 3 semester hours**

Prerequisites: SOC WK 5410 or equivalent. Advanced course, focusing on analysis of qualitative and quantitative data to advanced social work practice, knowledge, and theory. Students learn to use and interpret various statistical procedures for analyzing quantitative data, including bivariate and multivariate analysis, and content and statistical analysis for qualitative data. Students apply these analytic techniques to social work case material using computer software applications.

**SOC WK 5500 Foundations Of Human Behavior In The Social Environment: 3 semester hours**

Same as GS 5500. Prerequisites: SOC WK 3510 or equivalent or admission to the MSW program. Focuses on theoretical and empirical understanding of human behavior in the social environment using a life-span perspective Introduces biological, behavioral, cognitive, and sociocultural theories of individuals, families, and small groups, and their implications for the professional social worker's understanding of socioeconomic status, gender, disability, ethnicity, race, and sexual orientation.

**SOC WK 5610 Mechanisms Of Aging I: The Aging Body: 1 semester hour**

Same as GERON 5610 and PSYCH 5610. Prerequisites: Graduate Standing and BIOL 1102 or equivalent (MSW students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social science/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

**SOC WK 5611 Mechanisms Of Aging II: The Aging Brain: 1 semester hour**

Same as GERON 5611 and PSYCH 5611. Prerequisites: SOC WK 5610, GERON 5610, PSYCH 5610 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

**SOC WK 5612 Mechanisms Of Aging III: Diseases Of Aging: 1 semester hour**

Same as GERON 5612 and PSYCH 5612. Prerequisites: SOC WK 5610 and SOC WK 5611, or GERON 5610 and GERON 5611, or PSYCH 5610 and PSYCH 5611 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background with information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.

**SOC WK 5620 Dying, Grief & Death in Older Adulthood: 3 semester hours**

Same as GERON 5620. Prerequisite: Six hours of graduate level gerontology, psychology, counseling and/or social work coursework, or special approval from the instructor. Undergraduates in their senior year may also request approval for entry from the Director of Gerontology. For those planning to work with older adults in counseling, healthcare, hospice and/or community support settings. Will examine trajectories to death in older age, the dying process, influences of medical and aging-related conditions, euthanasia and suicide, life extension and longevity, personal beliefs and existential responses, how individuals and families cope, ethical concerns, and strategies for supportive intervention. Topics are addressed from clinical, supportive care, and interdisciplinary perspectives.

**SOC WK 5635 Social Work Practice with Gay, Lesbian, Bisexual and Transgender Populations: 3 semester hours**

Same as GS 5635. Prerequisites: SOC WK 5100 and SOC WK 5500. This advanced practice course focuses on developing the theoretical and empirical knowledge and practice skills necessary for effective social work practice with lesbian, gay male, bisexual, and transgender (LGBT) persons and their families. This course aims to explore deeper understanding of LGBT identities, families, health and mental health challenges, and issues of political advocacy.

**SOC WK 5700 Diversity and Social Justice for Social Work: 3 semester hours**

Same as GS 5700. Prerequisite: Graduate Standing. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.



**SOC WK 5800 Graduate Field Practicum I: 2-4 semester hours**

Prerequisites: Graduate standing and consent of instructor. Provides integrative field experience in generalist social work practice. May be taken for 2-4 hours' credit depending on time in agency during semester, 75 contact hours = 1 credit hour. May be repeated once. A maximum of 4 credit hours will apply to the M.S.W. degree.

**SOC WK 5801 Foundation Field Practicum Seminar: 2 semester hours**

Prerequisite: Graduate standing and consent of instructor. Integrates academic content from foundation course work and experiential learning in field placements. Goals are to conceptualize the problem solving process in field practice, synthesize theory into a social work approach that encourages creative use of self, and underscore ethics and service to diverse groups in practices.

**SOC WK 6120 Theory And Practice With Older Adults: 3 semester hours**

Same as GERON 6120. Prerequisites: Graduate Standing. Examines theory and empirically-based assessment and intervention models for work with the elderly. It includes the life circumstances of older adults and how that differs from younger adult populations; how ethnicity, gender, social class, and sexual orientation interact with age and create special intervention issues; discussion of ethical and value issues (e.g. client autonomy, rationing of health care); examination of family and community resources in providing care; and interventions with physically or mentally disabled elders and elders in residential settings.

**SOC WK 6130 Interviewing Older Adults and Life Review: 3 semester hours**

Same as GERON 6130. Prerequisites: Graduate Standing. This course combines training in interviewing techniques with video production. Students will learn how to conduct life review interviews with older adults, and then take these skills into the community by interviewing older adults living in various settings. Students will learn how to use a digital vide camera and edit video clips on the computer. Student-conducted interviews will be viewed by the instructor and classmates, issues associated with aging will be discussed, and constructive feedback provided. Some of the video clips developed in the course will become part of an educational video clip library.

**SOC WK 6150 Theory And Practice With Families: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent, graduate standing and departmental approval. This course will examine theoretical approaches to social work with families, including the impact of the social environment. Skills will include assessment and multi-disciplinary intervention with multi-problem families. Special emphasis will be given to poverty, chemical dependency, intra-familial violence, physical and mental illnesses, and working with family members of diverse cultures, socioeconomic backgrounds, races, sexual orientation, and ability. Values and ethics will be emphasized.

**SOC WK 6160 Advanced Social Work Practice Across the Life Span: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent or consent of instructor Examines theory and empirically-based assessment and intervention strategies for diverse populations across the life span. Students will gain basic mastery of behavioral, cognitive-behavioral, brief therapeutic and supportive psychotherapeutic techniques and their appropriate use with children, adolescents, and young, middle and older adults. The course will also consider the effects of family, peers, and societal context (e.g. poverty, racism, and ageism) in understanding psycho-social stressors particular to each life era, including academic failure and delinquency, substance abuse, physical and mental illness, family disruption and instability, and grief and loss issues.

**SOC WK 6200 Family Policy: 3 semester hours**

Prerequisites: SOC WK 5200 or equivalent or consent of instructor and graduate standing. Examines policy development, implementation and impact of social policies on children, youth, and families. International national, and state policies that affect basic family needs will be the focus, including topics such as economic support, health care, child care and protection, and child and youth development. Intended and unintended consequences of existing policies on the family will be examined as well as future policy directions.

**SOC WK 6250 Social And Economic Development Policy: 3 semester hours**

Same as POL SCI 6418. Prerequisites: SOC WK 5200 or equivalent or consent of instructor and graduate standing. Examines major trends and alternatives in social and economic development policy and practice in state, national, and international perspectives. Students will develop skills in policy analysis and development.

**SOC WK 6300 Leadership and Management in Nonprofit Organizations: 3 semester hours**

Same as P P ADM 6300 and POL SCI 6300. Prerequisites: Graduate standing required. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions, and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

**SOC WK 6310 American Philanthropy and Nonprofit Resource Development: 3 semester hours**

Same as P P ADM 6310. Prerequisites: Graduate standing required. This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the nonprofit, voluntary sector. It further examines the contemporary forces which impact philanthropy and charitable giving, both by institutions and individuals. The course examines the effective planning and management of development programs (e.g., annual giving), fund raising vehicles (e.g., mail solicitations) and the fund raising process, form planning through donor relations.

**SOC WK 6311 Staff Management Issues in Nonprofit Organizations: 1 semester hour**

Same as P P ADM 6311. Prerequisites: Graduate standing required. This course addresses issues involved in managing staff in nonprofit organizations. The course will cover the following topics: fundamentals of staff supervision; balancing supervisory processes with counseling and coaching; selecting, hiring, evaluating, and terminating staff' legal issues that affect these processes.

**SOC WK 6312 Legal Issues in Managing Nonprofit Organizations: 1 semester hour**

Same as P P ADM 6312. Prerequisites: Graduate Standing required. This course addresses legal issues involved in managing and governing nonprofit organizations. The course will cover the following topics: The Board as steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

**SOC WK 6313 Financial Issues in Managing Nonprofit Organizations: 1 semester hour**

Same as P P ADM 6313. This course addresses financial issues involved in governing and managing nonprofit organizations. The course will cover the following topics: Cash flow analysis; budgeting; fund accounting; cost accounting (determining costs for programs and services); understanding and using standard financial statements, including balance sheets, cash flow statements, statements of activity, and operating and capital budgets.

**SOC WK 6400 Practice And Program Evaluation: 3 semester hours**

Prerequisites: SOC WK 5410 and SOC WK 5450 or equivalent or consent of instructor. Provides specialized knowledge in the use of qualitative and quantitative research skills to evaluate the effectiveness of social work practice. Topics will include single system design, group designs, and program evaluation. Students will design and conduct a research project associated with their advanced social work practicum. Results will be presented to the class and the agency. Value and ethical issues, particularly those relevant to client race and gender will be emphasized as students develop and conduct their research.

**SOC WK 6443 Health Care Policy: 3 semester hours**

Same as POL SCI 6443, P P ADM 6430, GERON 6443. Prerequisites: Graduate Standing and consent of instructor. (MSW students will normally take the social policy foundation course prior to enrolling in this course.) Survey course examining current issues in health care policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

**SOC WK 6449 Human Resources In The Public Sector: 3 semester hours**

Same as POL SCI 6449 and P P ADM 6490 Prerequisites: P P ADM 6600 or consent of instructor. Presents an overview of personnel & labor relations in the public sector. Particular emphasis placed on issues which are unique to the public sector, such as the merit system, the questions of representative bureaucracy and the constraints of personnel in the nonprofit sector. The topics include personnel reforms in the federal sector, equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation, and labor relations including grievance arbitration and collective bargaining.

**SOC WK 6450 Gerontological Assessment: 3 semester hours****SOC WK 6491 Strategic And Program Planning For Nonprofit Organizations: 3 semester hours**

Same as POL SCI 6490 and P P ADM 6550. Prerequisites: Graduate Standing or consent of Instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

**SOC WK 6601 Evid Bsd Approaches in Direct SW Practice: Cog & Rational Emotive Behavioral Therapy Models: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Cognitive Behavioral and Rational Emotive Behavioral therapy models. Students will utilize these theories to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. This course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6602 Evid Bsd Approaches in Dir SWork Practice: Sol Focused Therapy Model: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Solution Focus therapy model. Students will utilize this theory to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. This course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6603 Evid Bsd Approaches in Dir SWork Practice: Play and Interactive Models: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Play and Interactive therapy models. Students will utilize these theories to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. This course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6604 Introduction to Motivational Interviewing: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160, or consent of instructor, and graduate standing. This course focuses on skill development in Motivational Interviewing (MI), a specific style of interaction used to help clients/patients increase internal motivation to change behavior. The course will include theoretical underpinnings of MI, including a review of research establishing MI as an evidence-based intervention for a number of behavior areas. The course will also review a model of learning MI and provide specific opportunities for students to practice the skill. The broad objective of this course is to provide social work students an overview of Motivational Interviewing and its application to various domains of social work.

**SOC WK 6630 Diagnosis And Related Pharmacology For Social Work Practice: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent or consent of instructor. Course is designed for social work students, and will provide an overview of the development and treatment of selected mental health disorders classified by Diagnostic and Statistical Manual of Mental Disorders. In particular, the course will examine, from a systems perspective, the psychological and neuropsychological etiologies of mood, psychotic, personality and other disorders and their preferred pharmacological treatment.

**SOC WK 6640 School Social Work Practice in Public Schools: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent or graduate standing and consent of instructor. Examines the role of the social worker in school settings and includes work with youth, families, and communities in relation to the child or adolescent's functioning in school.

**SOC WK 6645 Hospital Social Work: 3 semester hours**

Prerequisites: SOC WK 5100 and SOC WK 5500 or equivalent. This course focuses the key issues and practices of providing social work services through an interdisciplinary model in a large academic urban hospital setting. Practice issues will include discharge planning (housing, transportation, insurance and finances, medications and social/community supports) with focus on cultural competence and health literacy. The course will also review the following aspects of hospital social work: inpatient medicine, inpatient psychiatry, forensic social work, emergency department social work, transplant social work and clinic social work. Class discussions will integrate information concerning current health care economics.

**SOC WK 6800 Graduate Field Practicum II: 2-6 semester hours**

Prerequisites: SOC WK 5800 and SOC WK 5801. Provides integrative field experience in student's graduate social work practice concentration. May be taken for 2 to 6 hours credit depending on time in agency during semester, 55 contact hours = 1 credit hour. May be repeated once and/or taken concurrently with SOC WK 6850.

**SOC WK 6850 Graduate Field Practicum III: 2-6 semester hours**

Prerequisites: SOC WK 6800 Provides advanced integrative field experience in students' graduate social work practice concentration. May be taken for 2 to 6 hours of credit depending on time in agency during semester, 55 contact hours = 1 credit hour. May be repeated once and/or taken concurrently with SOC WK 6800.

**SOC WK 6900 Directed Study In Professional Social Work: 1-10 semester hours**

Prerequisite: Graduate standing and consent of instructor. Independent graduate-level study on a topic of particular interest through readings, reports, and field work under faculty supervision.

## Courses

**SOC WK 2000 Social Work And Social Issues: 3 semester hours**

Prerequisites: SOC 1010 or PSYCH 1003 Examination of the network of social programs and services developed in response to social problems in modern urban communities and the various roles and functions performed by the helping professions. Students will be introduced to basic values, skills, and training involved in a helping relationship as well as the characteristics of clients seeking help and professionals engaged in the helping process.

**SOC WK 2001 Social Work and Social Issues Lab: 1 semester hour**

Prerequisites: Simultaneous with SOC WK 2000. The lab session will be used for field trips to social agencies which will allow students to better understand the many roles social workers are involved in This course is required for social work majors.

**SOC WK 2102 Introduction To Gender Studies: 3 semester hours**

Same as HIST 2102, SOC 2102, and GS 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

**SOC WK 2200 Social Welfare As A Social Institution: 3 semester hours**

Prerequisite: SOC WK 2000 or consent of instructor. A study of the: 1) development of social welfare service and the philosophy underlying the present practices and systems, 2) present social welfare programs with particular emphasis given to public income maintenance provisions, 3) special welfare needs of the black, elderly, women, indian and hispanic americans, and 4) Development of social work as a profession. This course may be taken by non-social work majors.

**SOC WK 2201 Social Welfare As A Social Institution Laboratory: 1 semester hour**

Prerequisites: Simultaneous with SOC WK 2200. The lab session will be used for field trips to social agencies. This course is required for all Social Work majors.

**SOC WK 2330 Asians In Migration: 3 semester hours**

This course is a comparative analysis of the social and cultural diversity of the peoples of East, South, and Southeast Asia. Study focuses on their reasons for migration and the extent and quality of the social and cultural connections they maintain to their homelands. Implications of these cultures for students in a variety of disciplines are explored. This course satisfies the cultural diversity requirement.

**SOC WK 3100 Introduction To Strategies for Social Work Practice: 3 semester hours**

Prerequisites: SOC WK 2200, SOC 1010 and PSYCH 1003 or permission of instructor. A presentation of basic knowledge, skills, and theory used for entry-level professional practice, such as problem assessment, interviewing skills, crisis intervention and referral procedures. The course objectives will also be to teach students how to help clients negotiate systems effectively, and to use resources, services, and opportunities.

**SOC WK 3210 Social Issues And Social Policy Development: 3 semester hours**

Prerequisites: SOC WK 2200, POL SCI 1100, and ECON 1000. The identification of issues concerning governmental provisions to meet contemporary social needs, with analysis of the principles and values underlying alternative solutions. A study of the processes by which citizen opinions and public policies evolve and are implemented in areas such as income maintenance, crime and delinquency, employment, family and child welfare, and public mental health.

**SOC WK 3410 Research Design In Social Work: 3 semester hours**

Prerequisites: Satisfaction of Math Proficiency requirement and either SOC 3220, CRIMIN 2220, or PSYCH 2201. Students explore research concepts and procedures (hypothesis testing, sampling, measurement, and design) emphasizing issues in social work research. Students learn to collect, analyze and present data.



**SOC WK 3510 Human Behavior In The Social Environment: 3 semester hours**

Prerequisites: BIOL 1012 and SOC 2160 or PSYCH 2160 or permission of instructor. This course will focus on the normative stages in the life span, and specifically, how human development is affected by the physical environment and social status characteristics. Empirical information and theoretical views on human development will be included. Human development will be viewed as a complex interaction of individual developmental stages with family, social, and community systems.

**SOC WK 3700 Diversity And Social Justice: 3 semester hours**

Same as GS 3700. Prerequisites: PSYCH 2160 or SOC 2160; and SOC WK 3100 taken prior or concurrently. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

**SOC WK 4110 Social Work Practice with Individuals, Families, and Groups: 3 semester hours**

Prerequisites: SOC WK 3100, SOC WK 3510, and SOC WK 3700 taken prior to or concurrently. This course continues the presentation of basic knowledge and practice skills for entry level professional practice begun in SOC WK 3100. It builds on the generalized helping model, incorporating specialized skills for working with specific groups of clients (e.g., children, aged, mentally ill, and physically handicapped), with families and small groups.

**SOC WK 4300 Social Work Practice with Communities: 3 semester hours**

Prerequisites: SOC WK 3210 taken prior to or concurrently, senior standing. Continuation of basic practice skills with emphasis given to analysis and intervention at the community level. Includes assessment of community assets and needs and the development of community-level interventions. Emphasis is also placed on helping the practitioner evaluate the impact of intervention.

**SOC WK 4350 Human Service Organizations: 3 semester hours**

Prerequisite: POL SCI 1100; PSYCH 2160 or SOC 2160 and admission to the BSW program or consent from instructor. This course seeks to help develop knowledge of organizational functioning and an understanding of organizational history, principles and philosophy of effective administration. Students develop theoretical and empirical understanding of groups and organizations, including concepts such as power and authority, organizational structure, goals, membership, leadership, motivation, technology and organizational culture. They will learn to develop a budget and to submit proposals for grant funding. Using a systemic perspective with organizations as settings for practice students learn to function in and through organizations.

**SOC WK 4376 Mental Health And Aging: 3 semester hours**

Same as GERON 4376 and PSYCH 4376. Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) This course provides a survey of theory and research in mental health issues for older populations, focusing on psychological and social aspects of mental health and impairment. The course details approaches to understanding prevalence, etiology, assessment, and treatment of the psychological disorders most commonly experienced by older adults, including anxiety, depression, delirium, and dementia, among others.

**SOC WK 4398 Child Maltreatment: A Multidisciplinary Approach: 3 semester hours**

SAME AS PSYCH 4398 and CAST 4398. Focuses on clinical aspects of child abuse with attention to identification, reporting, intervention and prevention. Perspectives from the disciplines of psychology and social work are provided.

**SOC WK 4601 Abused And Neglected Children: 3 semester hours**

Prerequisites: SOC WK 3510 or equivalent. This course explores the major concepts necessary for understanding abused and neglected children and their families. Emphasis is placed on (1) defining the problem, including societal stresses which contribute to the abuse and neglect; (2) examining existing practice methods; and (3) understanding the role of the social worker on interdisciplinary teams.

**SOC WK 4610 Intimate Partner Violence: 3 semester hours**

Same as GS 4610. Prerequisites: SOC WK 3510. Focuses on theoretical and empirical understanding of domestic violence in US society and social work practice with battered women and their families. Addresses direct services, community organizing, and public policy changes to help end violence against women. Relationships between violence against women and other forms of oppression (e.g., racism, economic exploitation, heterosexism and social class) are explored.

**SOC WK 4620 Addictions: Assessment And Intervention In Social Work Practice: 3 semester hours**

Prerequisites: SOC WK 4110 or SOC WK 5100 or equivalent, (or are taking concurrently), or consent of instructor. This class examines the interface of psychological, physical, social, and spiritual aspects of addiction. This practice class is designed to deepen students' abilities to address clients' issues related to addictions and addictive behaviors, including: prevention, assessment, and intervention. It builds on the generalized helping model within a systems perspective, and it introduces specialized skills for working with individuals, with specific groups of clients, with families, and with small groups.

**SOC WK 4630 Gender Issues in Social Work: 3 semester hours**

Same as GS 4630. Prerequisites: SOC WK 3700, GS 2102, or graduate standing. This course will help students become more sensitive to the social and welfare concerns based on gender. Topics may include work, education, family responsibilities, violence against women, and special health and mental health service needs. Emphasis will be placed on understanding how social action can be used to bring about positive change.

**SOC WK 4641 Crisis Intervention: 1 semester hour**

Prerequisites: SOC WK 4110 or SOC WK 5100 or equivalent (or are taking concurrently), or consent of instructor. This course introduces students to the theoretical framework as well as the skills needed to understand and engage in effective crisis intervention. Students will learn a specialized model for assessment and intervention with people in crisis and will have an opportunity to apply this model to a variety of case situations.

**SOC WK 4642 Non-Violent Crisis Intervention: 1 semester hour**

Prerequisites: Senior or Graduate Standing. Nonviolent Crisis Intervention is a nonharmful behavior management system designed to aid human service professionals in the management of disruptive and assaultive people. These techniques are used to reduce tension in agitated people, control anxiety during interventions, determine alternative approaches if a person becomes violent. Students will learn how to use nonverbal, paraverbal, verbal and physical intervention skills to maintain the best care and safety for clients.



**SOC WK 4643 Social Work Practice with Individuals with Development Disabilities: 1 semester hour**

Prerequisites: Senior Standing This evidence based course exposes students to the diverse issues related to the services and support needed by individuals with development issues. Students will explore the complex social contexts in which this population lives and the appropriate interventions to meet the unique challenges facing these individuals.

**SOC WK 4645 Social Work in Mental Health: 3 semester hours**

Prerequisites: SOC WK 3510 and SOC WK 4110 or the equivalent. The role of social work in the field of behavioral health has evolved over the last thirty years as the setting for service activity has shifted from inpatient facilities to community-based care and treatment. This course will integrate the basic components of good social work practice with the contemporary role of the social worker in the field of behavioral healthcare. This course will focus on practical applications of social work in the context of working with individuals and families dealing with mental health and/or addiction disorders with an emphasis on consumer empowerment and recovery.

**SOC WK 4670 Cross Cultural Perspectives On Social Policy: 3 semester hours**

Prerequisites: SOC WK 3210 or equivalent. This course examines social policies in different countries, which may include social insurance, social assistance, health care, and social services. Using a comparative framework, the course examines the nature of government involvement, and public and private sector relations. It examines adequacy, equity, inclusiveness, comprehensiveness, effectiveness, and efficiency of social policies in the countries being studied.

**SOC WK 4680 Introduction to Gerontological Practice: 3 semester hours**

Same as GERON 4680. Prerequisites: Advanced undergraduate or graduate standing. This course introduces key concepts and practices in the evaluation and care of older adults. It is intended for students considering aging-focused careers in the social service or healthcare fields. Topics include developmental and health-related theories of aging, functional and psychosocial aspects of aging, working with older adults in various service settings, multi and interdisciplinary team approaches, and basic standards of professional conduct that apply across professions.

**SOC WK 4800 Supervised Field Experience In Social Work I: 4 semester hours**

Prerequisite: SOC WK 3100, SOC WK 4110. SOC WK 4110 must be taken prior to or concurrently with SOC WK 4801; consent of instructor. This course provides students practice experience in social service agencies. Students work at the agencies approximately 20 hours per week. The purpose of this experience is to familiarize students with agency operations. Selection of the agency is based on student education needs.

**SOC WK 4801 Integrative Field Experience Seminar I: 2 semester hours**

Prerequisite: Consent of instructor and concurrent registration in SOC WK 4800. This seminar provides an opportunity for students to integrate previous course work with their experience in social work agencies. Classroom discussion will emphasize direct practice issues.

**SOC WK 4850 Supervised Field Experience In Social Work II: 4 semester hours**

Prerequisite: SOC WK 4800, SOC WK 4801 and consent of instructor this is a continuation of agency practice experience. Students work at the agency approximately 20 hours per week and continue at the same agency as SOC WK 4800 or change agencies with the consent of the instructor.

**SOC WK 4851 Integrative Field Seminar II: 2 semester hours**

Prerequisites: Consent of instructor and concurrent registration in SOC WK 4850. This seminar is a continuation of SOC WK 4801. Classroom discussion will emphasize administration and community organization issues.

**SOC WK 4900 Special Study: 1-10 semester hours**

Prerequisite: Consent of instructor. Independent study through advanced readings in method and philosophy on a topic of particular interest, or field research in an agency.

**SOC WK 5100 Generalist Social Work Practice: 3 semester hours**

Prerequisites: SOC WK 4110 or equiv or admission to MSW program Using a problem-solving approach, students develop theoretical and empirical understanding and practical application of generalist social work methods. Students gain knowledge and skills that include interviewing, assessment, crisis and shortterm intervention, contracting, resource development, and case documentation needed for competent direct practice with diverse populations.

**SOC WK 5200 Social Policy And Social Services: 3 semester hours**

Prerequisites: SOC WK 3210 or POL SCI 2420 or POL SCI 3460 or equivalent or admission to the MSW program Covers the history and development of social welfare policies, legislative processes, and existing social welfare programs. Examines frameworks for social policy analysis, analyzes how social and economic conditions impact the process of social policy development and implementation, and introduces policy practice in social work.

**SOC WK 5300 Community Practice And Social Change: 3 semester hours**

Prerequisites: SOC WK 3300, or SOC 3344, or equivalent or admission to the MSW program Focuses on economic, social, and political theory and research on communities and social change. Examines conceptual models of community practice within the generalist model and develops skills in organizing, advocacy, and planning.

**SOC WK 5350 Social Work And Human Service Organizations: 3 semester hours**

Prerequisites: SOC WK 3510 and SOC WK 4300 or PSYCH 3318 or BUS AD 3611 or equivalent or admission to the MSW program. Students develop theoretical and empirical understanding of groups and organizations, including concepts such as power and authority, structure, goals, membership, leadership, motivation, technology and organizational culture. Using organizations as settings for social work practice and as targets for change, students learn strategies and skills for assessment and intervention.

**SOC WK 5410 Social Work Research Methods And Analysis I: 3 semester hours**

Prerequisites: SOC WK 3410 or SOC 3230 and SOC 3231 or equivalent and SOC 3220 or equivalent or admission to MSW program. The first of a two-course sequence designed to provide students with the knowledge base and skills for using scientific method to advance social practice, knowledge, and theory. Focuses on research methods at different levels (e.g., individual, group, organization, and community) and critical analysis and synthesis of academic literature necessary for effective, evidence-based social work practice. Covers quantitative and qualitative methods, research design, sampling, measurement, use of results, impact of research, and ethical considerations.

**SOC WK 5450 Social Work Research Methods And Analysis II: 3 semester hours**

Prerequisites: SOC WK 5410 or equivalent. Advanced course, focusing on analysis of qualitative and quantitative data to advanced social work practice, knowledge, and theory. Students learn to use and interpret various statistical procedures for analyzing quantitative data, including bivariate and multivariate analysis, and content and statistical analysis for qualitative data. Students apply these analytic techniques to social work case material using computer software applications.

**SOC WK 5500 Foundations Of Human Behavior In The Social Environment: 3 semester hours**

Same as GS 5500. Prerequisites: SOC WK 3510 or equivalent or admission to the MSW program. Focuses on theoretical and empirical understanding of human behavior in the social environment using a life-span perspective. Introduces biological, behavioral, cognitive, and sociocultural theories of individuals, families, and small groups, and their implications for the professional social worker's understanding of socioeconomic status, gender, disability, ethnicity, race, and sexual orientation.

**SOC WK 5610 Mechanisms Of Aging I: The Aging Body: 1 semester hour**

Same as GERON 5610 and PSYCH 5610. Prerequisites: Graduate Standing and BIOL 1102 or equivalent (MSW students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social science/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

**SOC WK 5611 Mechanisms Of Aging II: The Aging Brain: 1 semester hour**

Same as GERON 5611 and PSYCH 5611. Prerequisites: SOC WK 5610, GERON 5610, PSYCH 5610 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

**SOC WK 5612 Mechanisms Of Aging III: Diseases Of Aging: 1 semester hour**

Same as GERON 5612 and PSYCH 5612. Prerequisites: SOC WK 5610 and SOC WK 5611, or GERON 5610 and GERON 5611, or PSYCH 5610 and PSYCH 5611 or equivalent, or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background with information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.

**SOC WK 5620 Dying, Grief & Death in Older Adulthood: 3 semester hours**

Same as GERON 5620. Prerequisite: Six hours of graduate level gerontology, psychology, counseling and/or social work coursework, or special approval from the instructor. Undergraduates in their senior year may also request approval for entry from the Director of Gerontology. For those planning to work with older adults in counseling, healthcare, hospice and/or community support settings. Will examine trajectories to death in older age, the dying process, influences of medical and aging-related conditions, euthanasia and suicide, life extension and longevity, personal beliefs and existential responses, how individuals and families cope, ethical concerns, and strategies for supportive intervention. Topics are addressed from clinical, supportive care, and interdisciplinary perspectives.

**SOC WK 5635 Social Work Practice with Gay, Lesbian, Bisexual and Transgender Populations: 3 semester hours**

Same as GS 5635. Prerequisites: SOC WK 5100 and SOC WK 5500. This advanced practice course focuses on developing the theoretical and empirical knowledge and practice skills necessary for effective social work practice with lesbian, gay male, bisexual, and transgender (LGBT) persons and their families. This course aims to explore deeper understanding of LGBT identities, families, health and mental health challenges, and issues of political advocacy.

**SOC WK 5700 Diversity and Social Justice for Social Work: 3 semester hours**

Same as GS 5700. Prerequisite: Graduate Standing. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

**SOC WK 5800 Graduate Field Practicum I: 2-4 semester hours**

Prerequisites: Graduate standing and consent of instructor. Provides integrative field experience in generalist social work practice. May be taken for 2-4 hours' credit depending on time in agency during semester, 75 contact hours = 1 credit hour. May be repeated once. A maximum of 4 credit hours will apply to the M.S.W. degree.

**SOC WK 5801 Foundation Field Practicum Seminar: 2 semester hours**

Prerequisite: Graduate standing and consent of instructor. Integrates academic content from foundation course work and experiential learning in field placements. Goals are to conceptualize the problem solving process in field practice, synthesize theory into a social work approach that encourages creative use of self, and underscore ethics and service to diverse groups in practices.

**SOC WK 6120 Theory And Practice With Older Adults: 3 semester hours**

Same as GERON 6120. Prerequisites: Graduate Standing. Examines theory and empirically-based assessment and intervention models for work with the elderly. It includes the life circumstances of older adults and how that differs from younger adult populations; how ethnicity, gender, social class, and sexual orientation interact with age and create special intervention issues; discussion of ethical and value issues (e.g. client autonomy, rationing of health care); examination of family and community resources in providing care; and interventions with physically or mentally disabled elders and elders in residential settings.

**SOC WK 6130 Interviewing Older Adults and Life Review: 3 semester hours**

Same as GERON 6130. Prerequisites: Graduate Standing. This course combines training in interviewing techniques with video production. Students will learn how to conduct life review interviews with older adults, and then take these skills into the community by interviewing older adults living in various settings. Students will learn how to use a digital video camera and edit video clips on the computer. Student-conducted interviews will be viewed by the instructor and classmates, issues associated with aging will be discussed, and constructive feedback provided. Some of the video clips developed in the course will become part of an educational video clip library.

**SOC WK 6150 Theory And Practice With Families: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent, graduate standing and departmental approval. This course will examine theoretical approaches to social work with families, including the impact of the social environment. Skills will include assessment and multi-disciplinary intervention with multi-problem families. Special emphasis will be given to poverty, chemical dependency, intra-familial violence, physical and mental illnesses, and working with family members of diverse cultures, socioeconomic backgrounds, races, sexual orientation, and ability. Values and ethics will be emphasized.

**SOC WK 6160 Advanced Social Work Practice Across the Life Span: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent or consent of instructor. Examines theory and empirically-based assessment and intervention strategies for diverse populations across the life span. Students will gain basic mastery of behavioral, cognitive-behavioral, brief therapeutic and supportive psychotherapeutic techniques and their appropriate use with children, adolescents, and young, middle and older adults. The course will also consider the effects of family, peers, and societal context (e.g. poverty, racism, and ageism) in understanding psycho-social stressors particular to each life era, including academic failure and delinquency, substance abuse, physical and mental illness, family disruption and instability, and grief and loss issues.

**SOC WK 6200 Family Policy: 3 semester hours**

Prerequisites: SOC WK 5200 or equivalent or consent of instructor and graduate standing. Examines policy development, implementation and impact of social policies on children, youth, and families. International, national, and state policies that affect basic family needs will be the focus, including topics such as economic support, health care, child care and protection, and child and youth development. Intended and unintended consequences of existing policies on the family will be examined as well as future policy directions.

**SOC WK 6250 Social And Economic Development Policy: 3 semester hours**

Same as POL SCI 6418. Prerequisites: SOC WK 5200 or equivalent or consent of instructor and graduate standing. Examines major trends and alternatives in social and economic development policy and practice in state, national, and international perspectives. Students will develop skills in policy analysis and development.

**SOC WK 6300 Leadership and Management in Nonprofit Organizations: 3 semester hours**

Same as P P ADM 6300 and POL SCI 6300. Prerequisites: Graduate standing required. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions, and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

**SOC WK 6310 American Philanthropy and Nonprofit Resource Development: 3 semester hours**

Same as P P ADM 6310. Prerequisites: Graduate standing required. This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the nonprofit, voluntary sector. It further examines the contemporary forces which impact philanthropy and charitable giving, both by institutions and individuals. The course examines the effective planning and management of development programs (e.g., annual giving), fund raising vehicles (e.g., mail solicitations) and the fund raising process, from planning through donor relations.

**SOC WK 6311 Staff Management Issues in Nonprofit Organizations: 1 semester hour**

Same as P P ADM 6311. Prerequisites: Graduate standing required. This course addresses issues involved in managing staff in nonprofit organizations. The course will cover the following topics: fundamentals of staff supervision; balancing supervisory processes with counseling and coaching; selecting, hiring, evaluating, and terminating staff; legal issues that affect these processes.

**SOC WK 6312 Legal Issues in Managing Nonprofit Organizations: 1 semester hour**

Same as P P ADM 6312. Prerequisites: Graduate Standing required. This course addresses legal issues involved in managing and governing nonprofit organizations. The course will cover the following topics: The Board as steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

**SOC WK 6313 Financial Issues in Managing Nonprofit Organizations: 1 semester hour**

Same as P P ADM 6313. This course addresses financial issues involved in governing and managing nonprofit organizations. The course will cover the following topics: Cash flow analysis; budgeting; fund accounting; cost accounting (determining costs for programs and services); understanding and using standard financial statements, including balance sheets, cash flow statements, statements of activity, and operating and capital budgets.

**SOC WK 6400 Practice And Program Evaluation: 3 semester hours**

Prerequisites: SOC WK 5410 and SOC WK 5450 or equivalent or consent of instructor. Provides specialized knowledge in the use of qualitative and quantitative research skills to evaluate the effectiveness of social work practice. Topics will include single system design, group designs, and program evaluation. Students will design and conduct a research project associated with their advanced social work practicum. Results will be presented to the class and the agency. Value and ethical issues, particularly those relevant to client race and gender will be emphasized as students develop and conduct their research.

**SOC WK 6443 Health Care Policy: 3 semester hours**

Same as POL SCI 6443, P P ADM 6430, GERON 6443. Prerequisites: Graduate Standing and consent of instructor. (MSW students will normally take the social policy foundation course prior to enrolling in this course.) Survey course examining current issues in health care policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.



**SOC WK 6449 Human Resources In The Public Sector: 3 semester hours**

Same as POL SCI 6449 and P P ADM 6490 Prerequisites: P P ADM 6600 or consent of instructor. Presents an overview of personnel & labor relations in the public sector. Particular emphasis placed on issues which are unique to the public sector, such as the merit system, the questions of representative bureaucracy and the constraints of personnel in the nonprofit sector. The topics include personnel reforms in the federal sector, equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation, and labor relations including grievance arbitration and collective bargaining.

**SOC WK 6450 Gerontological Assessment: 3 semester hours****SOC WK 6491 Strategic And Program Planning For Nonprofit Organizations: 3 semester hours**

Same as POL SCI 6490 and P P ADM 6550. Prerequisites: Graduate Standing or consent of Instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

**SOC WK 6601 Evid Bsd Approaches in Direct SW Practice: Cog & Rational Emotive Behavioral Therapy Models: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Cognitive Behavioral and Rational Emotive Behavioral therapy models. Students will utilize these theories to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. This course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6602 Evid Bsd Approaches in Dir SWork Practice: Sol Focused Therapy Model: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Solution Focus therapy model. Students will utilize this theory to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. This course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6603 Evid Bsd Approaches in Dir SWork Practice: Play and Interactive Models: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Play and Interactive therapy models. Students will utilize these theories to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. This course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6604 Introduction to Motivational Interviewing: 1 semester hour**

Prerequisites: SOC WK 5100 and SOC WK 6160, or consent of instructor, and graduate standing. This course focuses on skill development in Motivational Interviewing (MI), a specific style of interaction used to help clients/patients increase internal motivation to change behavior. The course will include theoretical underpinnings of MI, including a review of research establishing MI as an evidence-based intervention for a number of behavior areas. The course will also review a model of learning MI and provide specific opportunities for students to practice the skill. The broad objective of this course is to provide social work students an overview of Motivational Interviewing and its application to various domains of social work.

**SOC WK 6630 Diagnosis And Related Pharmacology For Social Work Practice: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent or consent of instructor. Course is designed for social work students, and will provide an overview of the development and treatment of selected mental health disorders classified by Diagnostic and Statistical Manual of Mental Disorders. In particular, the course will examine, from a systems perspective, the psychological and neuropsychological etiologies of mood, psychotic, personality and other disorders and their preferred pharmacological treatment.

**SOC WK 6640 School Social Work Practice in Public Schools: 3 semester hours**

Prerequisites: SOC WK 5100 or equivalent or graduate standing and consent of instructor. Examines the role of the social worker in school settings and includes work with youth, families, and communities in relation to the child or adolescent's functioning in school.

**SOC WK 6645 Hospital Social Work: 3 semester hours**

Prerequisites: SOC WK 5100 and SOC WK 5500 or equivalent. This course focuses the key issues and practices of providing social work services through an interdisciplinary model in a large academic urban hospital setting. Practice issues will include discharge planning (housing, transportation, insurance and finances, medications and social/community supports) with focus on cultural competence and health literacy. The course will also review the following aspects of hospital social work: inpatient medicine, inpatient psychiatry, forensic social work, emergency department social work, transplant social work and clinic social work. Class discussions will integrate information concerning current health care economics.

**SOC WK 6800 Graduate Field Practicum II: 2-6 semester hours**

Prerequisites: SOC WK 5800 and SOC WK 5801. Provides integrative field experience in student's graduate social work practice concentration. May be taken for 2 to 6 hours credit depending on time in agency during semester, 55 contact hours = 1 credit hour. May be repeated once and/or taken concurrently with SOC WK 6850.

**SOC WK 6850 Graduate Field Practicum III: 2-6 semester hours**

Prerequisites: SOC WK 6800 Provides advanced integrative field experience in students' graduate social work practice concentration. May be taken for 2 to 6 hours of credit depending on time in agency during semester, 55 contact hours = 1 credit hour. May be repeated once and/or taken concurrently with SOC WK 6800.

**SOC WK 6900 Directed Study In Professional Social Work: 1-10 semester hours**

Prerequisite: Graduate standing and consent of instructor. Independent graduate-level study on a topic of particular interest through readings, reports, and field work under faculty supervision.



# Spanish

## Courses

### ***SPANISH 1001 Spanish Language and Culture I: 5 semester hours***

This first Spanish course is designed to encourage the development of communicative proficiency through an integrated approach to the teaching of all four language skills - listening and understanding, reading, writing, and speaking. It encourages development of communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they develop their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. SPANISH 1001, SPANISH 1002, and SPANISH 2101 together form the introductory Spanish language sequence. Note: Intended for students with no previous Spanish experience. Students with previous Spanish experience are expected to contact the department for placement advising.

### ***SPANISH 1002 Spanish Language and Culture II: 5 semester hours***

Prerequisite: SPANISH 1001 or equivalent. This second Spanish course is designed to continue the development of communicative proficiency through an integrated approach to the teaching of all four language skills - listening and understanding, reading, writing, and speaking. It encourages development of communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they strengthen their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. SPANISH 1001, SPANISH 1002, and SPANISH 2101 together form the introductory Spanish language sequence.

### ***SPANISH 1199 Special Topics: Language Immersion: Spanish: 1-3 semester hours***

Prerequisites: SPANISH 1002 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated, provided the topics vary, for a maximum of 3 credits.

### ***SPANISH 2101 Spanish Language And Culture III: 3 semester hours***

Prerequisites: SPANISH 1002 or equivalent. This third Spanish course is designed to further develop communicative proficiency through an integrated approach to the teaching of all four language skills - listening and understanding, reading, writing, and speaking. It continues the development of communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they strengthen their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. SPANISH 1001, SPANISH 1002, and SPANISH 2101 together form the introductory Spanish language sequence. Successful completion fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A.

### ***SPANISH 2115A Intensive Spanish Language and Culture: 5 semester hours***

Prerequisite: Special consent required. Contact department for information. This intensive study of Spanish is equivalent to SPANISH 1001, SPANISH 1002, and SPANISH 2101, and is offered in a condensed format. It is designed to develop communicative proficiency through an integrated approach to the teaching of all four language skills: listening and understanding, reading, writing, and speaking. It develops communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they build their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. Successful completion of SPANISH 2115A, SPANISH 2115B and SPANISH 2115C fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A. SPANISH 2115A, SPANISH 2115B and SPANISH 2115C are co-requisites and must be taken concurrently. All three must be completed with a grade of C- or better to satisfy the foreign language requirement.

### ***SPANISH 2115B Intensive Spanish Language and Culture: 5 semester hours***

Prerequisite: Special consent required. Contact department for information. This intensive study of Spanish is equivalent to SPANISH 1001, SPANISH 1002, and SPANISH 2101, and is offered in a condensed format. It is designed to develop communicative proficiency through an integrated approach to the teaching of all four language skills: listening and understanding, reading, writing, and speaking. It develops communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they build their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. Successful completion of SPANISH 2115A, SPANISH 2115B and SPANISH 2115C fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A. SPANISH 2115A, SPANISH 2115B and SPANISH 2115C are co-requisites and must be taken concurrently. All three must be completed with a grade of C- or better to satisfy the foreign language requirement.

**SPANISH 2115C Intensive Spanish Language and Culture: 3 semester hours**

Prerequisite: Special consent required. Contact department for information. This intensive study of Spanish is equivalent to SPANIS 1001, SPANISH 1002, and SPANISH 2101, and is offered in a condensed format. It is designed to develop communicative proficiency through an integrated approach to the teaching of all four language skills: listening and understanding, reading, writing, and speaking. It develops communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they build their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. Successful completion of SPANISH 2115A, SPANISH 2115B and SPANISH 2115C fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A. SPANISH 2115A, SPANISH 2115B and SPANISH 2115C are co-requisites and must be taken concurrently. All three must be completed with a grade of C- or better to satisfy the foreign language requirement.

**SPANISH 2171 Spanish Conversation And Pronunciation: 3 semester hours**

Prerequisite: SPANISH 2101 or equivalent. Emphasis will be placed upon the development of oral skills in Spanish and upon the problems of Spanish pronunciation and intonation.

**SPANISH 2172 Spanish Composition: 3 semester hours**

Prerequisite: SPANISH 2101 or equivalent. Emphasis in developing the capacity and the ability to write in Spanish. To be taken concurrently with the online course SPANISH 2172A.

**SPANISH 2172A Grammar for Spanish Composition: 1 semester hour**

Prerequisites: SPANISH 2101 or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 2172.

**SPANISH 2175 Commercial Spanish: 3 semester hours**

Prerequisites: SPANISH 2101 or equivalent. Students will continue to expand their skills in Spanish within a real-world framework related to business with an emphasis placed on business-related vocabulary and improved public speaking skills in Spanish. No previous business experience is necessary, although this course is perfect for those students pursuing a major or minor in Business, International Business, Marketing, Communication, or any other business-related field. This course may not be taken for credit toward a major, but will count toward a minor in Spanish.

**SPANISH 2180 Readings In Spanish: 3 semester hours**

Prerequisite: SPANISH 2101 Or Equivalent. Development of language skills through reading and discussion of a variety of texts. To be taken concurrently with the online course SPANISH 2180A.

**SPANISH 2180A Grammar for Readings in Spanish: 1 semester hour**

Prerequisites: SPANISH 2101 or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 2180.

**SPANISH 2190 Special Readings: 1-3 semester hours**

Prerequisite: SPANISH 2101 and consent of department. Independent study through readings, reports and conferences.

**SPANISH 2199 Special Topics: Language Immersion: Spanish: 1-3 semester hours**

Prerequisite: SPANISH 2101 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary, for a maximum of 3 credits.

**SPANISH 2199A Spanish Grammar for Language Immersion: 1 semester hour**

Prerequisites: SPANISH 2101 or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 2199.

**SPANISH 3199 Special Topics: Language Immersion: Spanish: 1-3 semester hours**

Prerequisites: 2 of the following 3 courses: SPANISH 2171, SPANISH 2172, SPANISH 2180 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary for a maximum of 3 credits.

**SPANISH 3200 Syntax Of The Spanish Language: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent. Study of the syntactical and morphological characteristics of the Spanish language. Designed primarily for students majoring in Spanish.

**SPANISH 3210 Hispanic Culture And Civilization: Spain: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 Of The 3 Courses) Or Equivalent. The Development Of Spanish Peninsula Civilization From Its Romantic Beginnings To The Present.

**SPANISH 3210A Spanish Grammar for Hispanic Culture and Civilization; Spain: 1 semester hour**

Prerequisites: SPANISH 2171, SPANISH 2172, or SPANISH 2180 (2 of the 3 courses) or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 3210.

**SPANISH 3211 Hispanic Culture And Civilization: Spanish America: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent. The development of the cultures and civilization of the Spanish speaking nations of the western hemisphere.

**SPANISH 3211A Spanish Grammar for Hispanic Culture and Civilization: Spanish America: 1 semester hour**

Prerequisites: SPANISH 2171, SPANISH 2172, or SPANISH 2180 (2 of the 3 courses) or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 3211.

**SPANISH 3215 Practicum In Spanish: 3 semester hours**

Prerequisites: 2 of the following: SPANISH 2171, SPANISH 2172, SPANISH 2180 or equivalent, or consent of the instructor. This course introduces students to the Hispanic/Latino cultures in the US through community service and academic work. Students will perform a minimum of 20 hours per semester of supervised fieldwork in local organizations that serve area Hispanics. Students will study several issues related to the community they serve, will reflect on their field experience, and will connect their field experience with class readings and discussions. Required weekly seminar accompanies the field experience. Designed for majors of various disciplines. Placement at the agencies is relevant to the enrolled student's.

**SPANISH 3260 Spanish For Business: 3 semester hours**

Prerequisites: SPANISH 2171 or SPANISH 2172 or equivalent and SPANISH 3200 or permission of the instructor. Cultivation of advanced language skills with emphasis on business vocabulary, basic business and cultural concepts and situational practice to help prepare for interaction in the Spanish-speaking business world. Designed for international business students, economics students, or anyone interested in expanding their awareness of the Spanish language or wishing to explore the possibilities of positions with companies that need to conduct business in Spanish.

**SPANISH 3271 Advanced Spanish Conversation: 3 semester hours**

Prerequisite: SPANISH 2171 or consent of department. Emphasis will be placed upon the further development of oral skills in Spanish.

**SPANISH 3280 Introduction To Hispanic Literature: Spain: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent and SPANISH 3200 or two of the following: SPANISH 2172A, SPANISH 2180A, SPANISH 3210A, SPANISH 3211A. A survey course that introduces students to a rich variety of Peninsular texts ranging from the early Hispano-Arabic texts, through the Middle Ages, the Golden Age, and finally, modern Peninsular literature. The focus is on texts and excerpts that will familiarize students with the major movements and styles of Peninsular literature. The socio-political contexts in which the works were written will be studied. Required of Spanish majors. SPANISH 2180 is recommended for prerequisite.

**SPANISH 3281 Introduction To Hispanic Literature: Spanish America: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent and SPANISH 3200 or two of the following: SPANISH 2172A, SPANISH 2180A, SPANISH 3210A, SPANISH 3211A. A survey course that introduces students to selected texts of Spanish-American writers from the colonial period to the present. The focus is on texts and excerpts that will familiarize students with the major movements and styles of Spanish-American literature. The socio-political contexts in which the works were written will also be studied. Required of Spanish majors. SPANISH 2180 is recommended for prerequisite.

**SPANISH 3290 Special Readings: Spanish: 1-3 semester hours**

Prerequisite: Consent of department. Independent study through readings, reports and conferences.

**SPANISH 3311 Introduction to Special Topics in Hispanic Culture: 3 semester hours**

Prerequisites: Two of SPANISH 2172, SPANISH 2180 or SPANISH 2199 and two of the following SPANISH 2172A, SPANISH 2180A, or SPANISH 2199A or equivalent. Selected topics in Hispanic culture taught in Spanish. This course may be repeated twice for credit provided that the topic is different each time.

**SPANISH 3326 Introduction to Hispanic Linguistics: 3 semester hours**

Prerequisites: SPANISH 2172 with SPANISH 2172A, and one of the following: SPANISH 2180 with SPANISH 2180A, or SPANISH 2199 with SPANISH 2199A; or the equivalent. Students will develop an understanding of the basic aspects and tools of analysis in the primary areas of linguistics as applied to the Spanish language, including phonetics and phonology, morphology, syntax, semantics, pragmatics, and sociolinguistics.

**SPANISH 3327 Introduction to Hispanic Dialectology: 3 semester hours**

Prerequisites: SPANISH 2172 with SPANISH 2172A, and one of the following: SPANISH 2180 with SPANISH 2180A, or SPANISH 2199 with SPANISH 2199A; or the equivalent. Students will develop awareness of the different dialects and colloquialisms found in the Spanish-speaking world.

**SPANISH 4172 Introduction To Creative Writing In Spanish: 3 semester hours**

Prerequisites: SPANISH 3280 or SPANISH 3281 (junior status) or consent of instructor. This course will be presented in two parts. First, students will read literature samples and discuss theory for creative writing; and second, they will explore their own creativity by writing poetry, essays and short stories through exercises and examples given by the instructor.

**SPANISH 4199 Special Topics: Language Immersion: 1-3 semester hours**

Prerequisites: SPANISH 3280 or SPANISH 3281 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary, for a maximum of 3 credits.

**SPANISH 4300 Advanced Grammar: 3 semester hours****SPANISH 4311 Special Topics In Hispanic Culture: 3 semester hours**

Prerequisites: SPANISH 3280, or SPANISH 3281 or junior standing. Selected topics in Hispanic culture taught in Spanish. This course may be repeated for credit provided the topic is different each time.

**SPANISH 4312 Special Topics in Hispanic Literature: 3 semester hours**

Prerequisites: Junior standing or SPANISH 3280 or SPANISH 3281. Selected topics in Hispanic literature taught in Spanish. This course may be repeated for credit provided that the topic is different each time.

**SPANISH 4315 Spanish Literature From 1939 To The Present: 3 semester hours**

Prerequisite: SPANISH 3280. A study of cultural and literary development since the Spanish Civil War. Emphasis on leading novelists and dramatists.

**SPANISH 4323 Spanish Second Language Acquisition: 3 semester hours**

Prerequisites: SPANISH 3326 or equivalent, or by instructor approval. This course provides an introduction to the theoretical and methodological foundations of second language acquisition of Spanish. Key topics in the field such as learner strategies, the role of formal instruction, target language input, influence from the first language, and effects of study abroad are addressed. Students read and critique relevant literature on the acquisition of different phonological, morphosyntactic, lexical, and discourse features of Spanish as a second language. Small-scale analyses of Spanish interlanguage data are also conducted. Course taught in Spanish.

**SPANISH 4324 Spanish Sociolinguistics: 3 semester hours**

Prerequisites: SPANISH 3326 or equivalent, or consent of instructor. This course examines how Spanish is used within its social context. Key theoretical and methodological concepts from the field of sociolinguistics are discussed as applied to the Spanish language. Topics include language and identity, speech style, gender and language use, language attitudes, languages in context, bilingualism, and language change. Students are introduced to phonological, morphosyntactic, and discursive features subject to sociolinguistic variation across the Spanish-speaking world. The social context and implications of Spanish in the United States are also addressed. Course taught in Spanish.



**SPANISH 4325 Poetry And Drama Of The Golden Age: 3 semester hours**

Prerequisite: SPANISH 3280. Selected readings from the drama of Lope de Vega, Tirso de Molina, Ruiz de Alarcon, Calderon de la Barca and from the poetry of Garcilaso, Fray Luis de Leon, San de la Cruz, Gongora, Lope de Vega, and Quevedo.

**SPANISH 4326 Applied Linguistics In Spanish: 3 semester hours**

Prerequisites: SPANISH 3200 or equivalent. Study of the general principles of linguistics applied to the learning and teaching of Spanish with special emphasis on historical linguistics. The course will focus on the development of the Spanish language with emphasis on etymological and phonological changes. Recommended for prospective teachers of Spanish.

**SPANISH 4328 Spanish Phonetics and Phonology: 3 semester hours**

Prerequisites: SPANISH 3326 or equivalent. This course, taught in Spanish, is a detailed study of the sound system of Spanish. The course includes an articulatory and acoustic description of Spanish sounds and suprasegmental features (including stress and intonation patterns). Students will learn to represent Spanish speech sounds and patterns through transcription. The course additionally incorporates a comparison of English and Spanish sound systems along with an introduction to major differences in pronunciation across different varieties of Spanish.

**SPANISH 4330 Cervantes: 3 semester hours**

Prerequisite: SPANISH 3280. A study of Don Quixote in relation with author's life and with the cultural background of the Spanish Golden Age. Independent readings on other works of Cervantes.

**SPANISH 4331 Picaresque And Satirical Prose (1550-1650): 3 semester hours**

Prerequisite: SPANISH 3280. A study of Renaissance and Baroque prose in its social context. All readings and discussions on Spanish.

**SPANISH 4345 Spanish American Literature Of The Twentieth Century: 3 semester hours**

Prerequisite: SPANISH 3281. A study of the leading Spanish American poets, essayists and novelists of this period as interpreters of contemporary man's dilemma and the "pathos" and "ethos" of their culture.

**SPANISH 4351 Spanish American Fiction In The Twentieth Century: 3 semester hours**

Prerequisite: SPANISH 3281. The role of prose fiction in Spanish American literary and cultural history from World War I to the present.

**SPANISH 4390 Special Readings: 1-3 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports and conferences.

**SPANISH 4399 Seminar On Hispanic Literature: 3 semester hours**

Required of major students in the senior year. Subject to be announced every year by the instructor in charge of the seminar.

**SPANISH 5172 Introduction to Creative Writing in Spanish: 3 semester hours**

Prerequisites: Graduate Standing or permission of instructor. This course will be presented in two parts. First, students will read literature samples and receive theory for creative writing; and second, they will explore their own creativity by writing poetry, essays and short stories through exercises and examples given by the instructor.

**SPANISH 5199 Intensive Advanced Immersion Experience: 1-3 semester hours**

Prerequisites: In-service teacher of target language or enrollment in post degree completion program  
Bulletin description: Designed for in-service and pre-service/post baccalaureate foreign language teachers, this course focuses specifically on enhancing oral proficiency in the target language and enriching cultural knowledge for purposes of classroom language instruction. The course may simulate a study abroad immersion experience or may be taught within the context of a study abroad program. This course may be repeated, provided the topics vary, for a maximum of 3 credits.

**SPANISH 5311 Advanced Topics In Spanish Culture: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Selected topics in Spanish culture; may be repeated for credit with a different topic. Students will be expected to conduct an independent research project. Language of instruction is Spanish.

**SPANISH 5312 Advanced Topics in Hispanic Literature: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Selected topics in Hispanic literature taught in Spanish. This course may be repeated for credit provided that the topic is different each time.

**SPANISH 5323 Spanish Second Language Acquisition: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. This course, taught in Spanish, provides an introduction to the theoretical and methodological foundations of second language acquisition on Spanish. Key topics in the field are illustrated through examples from Spanish, such as learner strategies, the role of formal instruction, target language input, influence from the first language, and effects of study abroad. Students read and critique relevant literature on the acquisition of different phonological, morphosyntactic, lexical, and discourse features of Spanish as a second language. Analyses of Spanish interlanguage data are also conducted.

**SPANISH 5324 Advanced Spanish Sociolinguistics: 3 semester hours**

Prerequisites: Graduate standing or consent of the instructor, and advanced proficiency in Spanish. This advanced course in Spanish linguistics examines how Spanish is used within its social context. Key theoretical and methodological concepts from the field of sociolinguistics are discussed as applied to the Spanish language. Topics include language and identity, speech style, gender and language use, language attitudes, languages in contact, bilingualism, and language change. The social context and implications of Spanish in the United States are also addressed. Students will complete a sociolinguistic research study design and presentation. Course taught in Spanish.

**SPANISH 5328 Spanish Phonetics and Phonology: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. This course, taught in Spanish, is a detailed study of the sound system of Spanish. The course includes an articulatory and acoustic description of Spanish sounds and suprasegmental features (including stress and intonation patterns). Students read and critique state-of-the-art experimental research on second language Spanish phonology and conduct analyses of Spanish phonological data. The course additionally incorporates a comparison of English and Spanish sound systems along with an introduction to major differences in pronunciation across different varieties of Spanish.



## Courses

### **SPANISH 1001 Spanish Language and Culture I: 5 semester hours**

This first Spanish course is designed to encourage the development of communicative proficiency through an integrated approach to the teaching of all four language skills - listening and understanding, reading, writing, and speaking. It encourages development of communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they develop their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. SPANISH 1001, SPANISH 1002, and SPANISH 2101 together form the introductory Spanish language sequence. Note: Intended for students with no previous Spanish experience. Students with previous Spanish experience are expected to contact the department for placement advising.

### **SPANISH 1002 Spanish Language and Culture II: 5 semester hours**

Prerequisite: SPANISH 1001 or equivalent. This second Spanish course is designed to continue the development of communicative proficiency through an integrated approach to the teaching of all four language skills - listening and understanding, reading, writing, and speaking. It encourages development of communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they strengthen their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. SPANISH 1001, SPANISH 1002, and SPANISH 2101 together form the introductory Spanish language sequence.

### **SPANISH 1199 Special Topics: Language Immersion: Spanish: 1-3 semester hours**

Prerequisites: SPANISH 1002 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated, provided the topics vary, for a maximum of 3 credits.

### **SPANISH 2101 Spanish Language And Culture III: 3 semester hours**

Prerequisites: SPANISH 1002 or equivalent. This third Spanish course is designed to further develop communicative proficiency through an integrated approach to the teaching of all four language skills - listening and understanding, reading, writing, and speaking. It continues the development of communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they strengthen their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. SPANISH 1001, SPANISH 1002, and SPANISH 2101 together form the introductory Spanish language sequence. Successful completion fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A.

### **SPANISH 2115A Intensive Spanish Language and Culture: 5 semester hours**

Prerequisite: Special consent required. Contact department for information. This intensive study of Spanish is equivalent to SPANISH 1001, SPANISH 1002, and SPANISH 2101, and is offered in a condensed format. It is designed to develop communicative proficiency through an integrated approach to the teaching of all four language skills: listening and understanding, reading, writing, and speaking. It develops communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they build their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. Successful completion of SPANISH 2115A, SPANISH 2115B and SPANISH 2115C fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A. SPANISH 2115A, SPANISH 2115B and SPANISH 2115C are co-requisites and must be taken concurrently. All three must be completed with a grade of C- or better to satisfy the foreign language requirement.

### **SPANISH 2115B Intensive Spanish Language and Culture: 5 semester hours**

Prerequisite: Special consent required. Contact department for information. This intensive study of Spanish is equivalent to SPANISH 1001, SPANISH 1002, and SPANISH 2101, and is offered in a condensed format. It is designed to develop communicative proficiency through an integrated approach to the teaching of all four language skills: listening and understanding, reading, writing, and speaking. It develops communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they build their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. Successful completion of SPANISH 2115A, SPANISH 2115B and SPANISH 2115C fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A. SPANISH 2115A, SPANISH 2115B and SPANISH 2115C are co-requisites and must be taken concurrently. All three must be completed with a grade of C- or better to satisfy the foreign language requirement.

**SPANISH 2115C Intensive Spanish Language and Culture: 3 semester hours**

Prerequisite: Special consent required. Contact department for information. This intensive study of Spanish is equivalent to SPANISH 1001, SPANISH 1002, and SPANISH 2101, and is offered in a condensed format. It is designed to develop communicative proficiency through an integrated approach to the teaching of all four language skills: listening and understanding, reading, writing, and speaking. It develops communicative proficiency through an interactive task-based approach, provides students with an active and rewarding learning experience as they build their language skills and cultural competency, and fosters awareness of the Spanish-speaking world through authentic cultural materials and information. Students will complete a final project that demonstrates the knowledge acquired through the basic language sequence. Successful completion of SPANISH 2115A, SPANISH 2115B and SPANISH 2115C fulfills the foreign language requirement for Bachelor of Arts candidates. Students who have successfully completed this course may advance to SPANISH 2172/ SPANISH 2172A or SPANISH 2180/ SPANISH 2180A. SPANISH 2115A, SPANISH 2115B and SPANISH 2115C are co-requisites and must be taken concurrently. All three must be completed with a grade of C- or better to satisfy the foreign language requirement.

**SPANISH 2171 Spanish Conversation And Pronunciation: 3 semester hours**

Prerequisite: SPANISH 2101 or equivalent. Emphasis will be placed upon the development of oral skills in Spanish and upon the problems of Spanish pronunciation and intonation.

**SPANISH 2172 Spanish Composition: 3 semester hours**

Prerequisite: SPANISH 2101 or equivalent. Emphasis in developing the capacity and the ability to write in Spanish. To be taken concurrently with the online course SPANISH 2172A.

**SPANISH 2172A Grammar for Spanish Composition: 1 semester hour**

Prerequisites: SPANISH 2101 or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 2172.

**SPANISH 2175 Commercial Spanish: 3 semester hours**

Prerequisites: SPANISH 2101 or equivalent. Students will continue to expand their skills in Spanish within a real-world framework related to business with an emphasis placed on business-related vocabulary and improved public speaking skills in Spanish. No previous business experience is necessary, although this course is perfect for those students pursuing a major or minor in Business, International Business, Marketing, Communication, or any other business-related field. This course may not be taken for credit toward a major, but will count toward a minor in Spanish.

**SPANISH 2180 Readings In Spanish: 3 semester hours**

Prerequisite: SPANISH 2101 Or Equivalent. Development of language skills through reading and discussion of a variety of texts. To be taken concurrently with the online course SPANISH 2180A.

**SPANISH 2180A Grammar for Readings in Spanish: 1 semester hour**

Prerequisites: SPANISH 2101 or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 2180.

**SPANISH 2190 Special Readings: 1-3 semester hours**

Prerequisite: SPANISH 2101 and consent of department. Independent study through readings, reports and conferences.

**SPANISH 2199 Special Topics: Language Immersion: Spanish: 1-3 semester hours**

Prerequisite: SPANISH 2101 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary, for a maximum of 3 credits.

**SPANISH 2199A Spanish Grammar for Language Immersion: 1 semester hour**

Prerequisites: SPANISH 2101 or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 2199.

**SPANISH 3199 Special Topics: Language Immersion: Spanish: 1-3 semester hours**

Prerequisites: 2 of the following 3 courses: SPANISH 2171, SPANISH 2172, SPANISH 2180 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary for a maximum of 3 credits.

**SPANISH 3200 Syntax Of The Spanish Language: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent. Study of the syntactical and morphological characteristics of the Spanish language. Designed primarily for students majoring in Spanish.

**SPANISH 3210 Hispanic Culture And Civilization: Spain: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 Of The 3 Courses) Or Equivalent. The Development Of Spanish Peninsula Civilization From Its Romantic Beginnings To The Present.

**SPANISH 3210A Spanish Grammar for Hispanic Culture and Civilization; Spain: 1 semester hour**

Prerequisites: SPANISH 2171, SPANISH 2172, or SPANISH 2180 (2 of the 3 courses) or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 3210.

**SPANISH 3211 Hispanic Culture And Civilization: Spanish America: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent. The development of the cultures and civilization of the Spanish speaking nations of the western hemisphere.

**SPANISH 3211A Spanish Grammar for Hispanic Culture and Civilization: Spanish America: 1 semester hour**

Prerequisites: SPANISH 2171, SPANISH 2172, or SPANISH 2180 (2 of the 3 courses) or equivalent. Development of language skills through continued study of the grammatical structures of the Spanish language. To be taken online concurrently with SPANISH 3211.

**SPANISH 3215 Practicum In Spanish: 3 semester hours**

Prerequisites: 2 of the following: SPANISH 2171, SPANISH 2172, SPANISH 2180 or equivalent, or consent of the instructor. This course introduces students to the Hispanic/Latino cultures in the US through community service and academic work. Students will perform a minimum of 20 hours per semester of supervised fieldwork in local organizations that serve area Hispanics. Students will study several issues related to the community they serve, will reflect on their field experience, and will connect their field experience with class readings and discussions. Required weekly seminar accompanies the field experience. Designed for majors of various disciplines. Placement at the agencies is relevant to the enrolled student's.

**SPANISH 3260 Spanish For Business: 3 semester hours**

Prerequisites: SPANISH 2171 or SPANISH 2172 or equivalent and SPANISH 3200 or permission of the instructor. Cultivation of advanced language skills with emphasis on business vocabulary, basic business and cultural concepts and situational practice to help prepare for interaction in the Spanish-speaking business world. Designed for international business students, economics students, or anyone interested in expanding their awareness of the Spanish language or wishing to explore the possibilities of positions with companies that need to conduct business in Spanish.

**SPANISH 3271 Advanced Spanish Conversation: 3 semester hours**

Prerequisite: SPANISH 2171 or consent of department. Emphasis will be placed upon the further development of oral skills in Spanish.

**SPANISH 3280 Introduction To Hispanic Literature: Spain: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent and SPANISH 3200 or two of the following: SPANISH 2172A, SPANISH 2180A, SPANISH 3210A, SPANISH 3211A. A survey course that introduces students to a rich variety of Peninsular texts ranging from the early Hispano-Arabic texts, through the Middle Ages, the Golden Age, and finally, modern Peninsular literature. The focus is on texts and excerpts that will familiarize students with the major movements and styles of Peninsular literature. The socio-political contexts in which the works were written will be studied. Required of Spanish majors. SPANISH 2180 is recommended for prerequisite.

**SPANISH 3281 Introduction To Hispanic Literature: Spanish America: 3 semester hours**

Prerequisites: SPANISH 2171, SPANISH 2172, SPANISH 2180 (2 of the 3 courses) or equivalent and SPANISH 3200 or two of the following: SPANISH 2172A, SPANISH 2180A, SPANISH 3210A, SPANISH 3211A. A survey course that introduces students to selected texts of Spanish-American writers from the colonial period to the present. The focus is on texts and excerpts that will familiarize students with the major movements and styles of Spanish-American literature. The socio-political contexts in which the works were written will also be studied. Required of Spanish majors. SPANISH 2180 is recommended for prerequisite.

**SPANISH 3290 Special Readings: Spanish: 1-3 semester hours**

Prerequisite: Consent of department. Independent study through readings, reports and conferences.

**SPANISH 3311 Introduction to Special Topics in Hispanic Culture: 3 semester hours**

Prerequisites: Two of SPANISH 2172, SPANISH 2180 or SPANISH 2199 and two of the following SPANISH 2172A, SPANISH 2180A, or SPANISH 2199A or equivalent. Selected topics in Hispanic culture taught in Spanish. This course may be repeated twice for credit provided that the topic is different each time.

**SPANISH 3326 Introduction to Hispanic Linguistics: 3 semester hours**

Prerequisites: SPANISH 2172 with SPANISH 2172A, and one of the following: SPANISH 2180 with SPANISH 2180A, or SPANISH 2199 with SPANISH 2199A; or the equivalent. Students will develop an understanding of the basic aspects and tools of analysis in the primary areas of linguistics as applied to the Spanish language, including phonetics and phonology, morphology, syntax, semantics, pragmatics, and sociolinguistics.

**SPANISH 3327 Introduction to Hispanic Dialectology: 3 semester hours**

Prerequisites: SPANISH 2172 with SPANISH 2172A, and one of the following: SPANISH 2180 with SPANISH 2180A, or SPANISH 2199 with SPANISH 2199A; or the equivalent. Students will develop awareness of the different dialects and colloquialisms found in the Spanish-speaking world.

**SPANISH 4172 Introduction To Creative Writing In Spanish: 3 semester hours**

Prerequisites: SPANISH 3280 or SPANISH 3281 (junior status) or consent of instructor. This course will be presented in two parts. First, students will read literature samples and discuss theory for creative writing; and second, they will explore their own creativity by writing poetry, essays and short stories through exercises and examples given by the instructor.

**SPANISH 4199 Special Topics: Language Immersion: 1-3 semester hours**

Prerequisites: SPANISH 3280 or SPANISH 3281 or equivalent. Faculty-led experience designed specifically to enhance acquisition of the target language and culture. This course may be repeated for credit if the topics vary, for a maximum of 3 credits.

**SPANISH 4300 Advanced Grammar: 3 semester hours****SPANISH 4311 Special Topics In Hispanic Culture: 3 semester hours**

Prerequisites: SPANISH 3280, or SPANISH 3281 or junior standing. Selected topics in Hispanic culture taught in Spanish. This course may be repeated for credit provided the topic is different each time.

**SPANISH 4312 Special Topics in Hispanic Literature: 3 semester hours**

Prerequisites: Junior standing or SPANISH 3280 or SPANISH 3281. Selected topics in Hispanic literature taught in Spanish. This course may be repeated for credit provided that the topic is different each time.

**SPANISH 4315 Spanish Literature From 1939 To The Present: 3 semester hours**

Prerequisite: SPANISH 3280. A study of cultural and literary development since the Spanish Civil War. Emphasis on leading novelists and dramatists.

**SPANISH 4323 Spanish Second Language Acquisition: 3 semester hours**

Prerequisites: SPANISH 3326 or equivalent, or by instructor approval. This course provides an introduction to the theoretical and methodological foundations of second language acquisition of Spanish. Key topics in the field such as learner strategies, the role of formal instruction, target language input, influence from the first language, and effects of study abroad are addressed. Students read and critique relevant literature on the acquisition of different phonological, morphosyntactic, lexical, and discourse features of Spanish as a second language. Small-scale analyses of Spanish interlanguage data are also conducted. Course taught in Spanish.

**SPANISH 4324 Spanish Sociolinguistics: 3 semester hours**

Prerequisites: SPANISH 3326 or equivalent, or consent of instructor. This course examines how Spanish is used within its social context. Key theoretical and methodological concepts from the field of sociolinguistics are discussed as applied to the Spanish language. Topics include language and identity, speech style, gender and language use, language attitudes, languages in context, bilingualism, and language change. Students are introduced to phonological, morphosyntactic, and discursive features subject to sociolinguistic variation across the Spanish-speaking world. The social context and implications of Spanish in the United States are also addressed. Course taught in Spanish.



**SPANISH 4325 Poetry And Drama Of The Golden Age: 3 semester hours**

Prerequisite: SPANISH 3280. Selected readings from the drama of Lope de Vega, Tirso de Molina, Ruiz de Alarcon, Calderon de la Barca and from the poetry of Garcilaso, Fray Luis de Leon, San de la Cruz, Gongora, Lope de Vega, and Quevedo.

**SPANISH 4326 Applied Linguistics In Spanish: 3 semester hours**

Prerequisites: SPANISH 3200 or equivalent. Study of the general principles of linguistics applied to the learning and teaching of Spanish with special emphasis on historical linguistics. The course will focus on the development of the Spanish language with emphasis on etymological and phonological changes. Recommended for prospective teachers of Spanish.

**SPANISH 4328 Spanish Phonetics and Phonology: 3 semester hours**

Prerequisites: SPANISH 3326 or equivalent. This course, taught in Spanish, is a detailed study of the sound system of Spanish. The course includes an articulatory and acoustic description of Spanish sounds and suprasegmental features (including stress and intonation patterns). Students will learn to represent Spanish speech sounds and patterns through transcription. The course additionally incorporates a comparison of English and Spanish sound systems along with an introduction to major differences in pronunciation across different varieties of Spanish.

**SPANISH 4330 Cervantes: 3 semester hours**

Prerequisite: SPANISH 3280. A study of Don Quixote in relation with author's life and with the cultural background of the Spanish Golden Age. Independent readings on other works of Cervantes.

**SPANISH 4331 Picaresque And Satirical Prose (1550-1650): 3 semester hours**

Prerequisite: SPANISH 3280. A study of Renaissance and Baroque prose in its social context. All readings and discussions on Spanish.

**SPANISH 4345 Spanish American Literature Of The Twentieth Century: 3 semester hours**

Prerequisite: SPANISH 3281. A study of the leading Spanish American poets, essayists and novelists of this period as interpreters of contemporary man's dilemma and the "pathos" and "ethos" of their culture.

**SPANISH 4351 Spanish American Fiction In The Twentieth Century: 3 semester hours**

Prerequisite: SPANISH 3281. The role of prose fiction in Spanish American literary and cultural history from World War I to the present.

**SPANISH 4390 Special Readings: 1-3 semester hours**

Prerequisite: Consent of instructor. Independent study through readings, reports and conferences.

**SPANISH 4399 Seminar On Hispanic Literature: 3 semester hours**

Required of major students in the senior year. Subject to be announced every year by the instructor in charge of the seminar.

**SPANISH 5172 Introduction to Creative Writing in Spanish: 3 semester hours**

Prerequisites: Graduate Standing or permission of instructor. This course will be presented in two parts. First, students will read literature samples and receive theory for creative writing; and second, they will explore their own creativity by writing poetry, essays and short stories through exercises and examples given by the instructor.

**SPANISH 5199 Intensive Advanced Immersion Experience: 1-3 semester hours**

Prerequisites: In-service teacher of target language or enrollment in post degree completion program Bulletin description: Designed for in-service and pre-service/post baccalaureate foreign language teachers, this course focuses specifically on enhancing oral proficiency in the target language and enriching cultural knowledge for purposes of classroom language instruction. The course may simulate a study abroad immersion experience or may be taught within the context of a study abroad program. This course may be repeated, provided the topics vary, for a maximum of 3 credits.

**SPANISH 5311 Advanced Topics In Spanish Culture: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Selected topics in Spanish culture; may be repeated for credit with a different topic. Students will be expected to conduct an independent research project. Language of instruction is Spanish.

**SPANISH 5312 Advanced Topics in Hispanic Literature: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. Selected topics in Hispanic literature taught in Spanish. This course may be repeated for credit provided that the topic is different each time.

**SPANISH 5323 Spanish Second Language Acquisition: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. This course, taught in Spanish, provides an introduction to the theoretical and methodological foundations of second language acquisition on Spanish. Key topics in the field are illustrated through examples from Spanish, such as learner strategies, the role of formal instruction, target language input, influence from the first language, and effects of study abroad. Students read and critique relevant literature on the acquisition of different phonological, morphosyntactic, lexical, and disclosure features of Spanish as a second language. Analyses of Spanish interlanguage data are also conducted.

**SPANISH 5324 Advanced Spanish Sociolinguistics: 3 semester hours**

Prerequisites: Graduate standing or consent of the instructor, and advanced proficiency in Spanish. This advanced course in Spanish linguistics examines how Spanish is used within its social context. Key theoretical and methodological concepts from the field of sociolinguistics are discussed as applied to the Spanish language. Topics include language and identity, speech style, gender and language use, language attitudes, languages in contact, bilingualism, and language change. The social context and implications of Spanish in the United States are also addressed. Students will complete a sociolinguistic research study design and presentation. Course taught in Spanish.

**SPANISH 5328 Spanish Phonetics and Phonology: 3 semester hours**

Prerequisites: Graduate standing or permission of instructor. This course, taught in Spanish, is a detailed study of the sound system of Spanish. The course includes an articulatory and acoustic description of Spanish sounds and suprasegmental features (including stress and intonation patterns). Students read and critique state-of-the-art experimental research on second language Spanish phonology and conduct analyses of Spanish phonological data. The course additionally incorporates a comparison of English and Spanish sound systems along with an introduction to major differences in pronunciation across different varieties of Spanish.

## Special Education



## Courses

### ***SPEC ED 3318 Inclusive Classrooms: 3 semester hours***

Prerequisites: Completion of Level I courses. This class is an introductory overview of inclusive education, the characteristics of special populations in diverse classrooms, and issues related to compliance with state and federal law in serving students with varying needs. In addition, Individualized Education Plans (IEPs) and the eligibility process will be emphasized. Applicable strategies for the successful inclusion of all students that enhance collaboration among relevant stakeholders will be provided.

### ***SPEC ED 3345 Cross Categorical Special Education I: 3 semester hours***

Prerequisites: TCH ED 3313 and Admission to the Teacher Ed Program. Study of characteristics of students with cross categorical disabilities and other pertinent issues including inclusion, assessment, and evaluation practices.

### ***SPEC ED 3346 Literacy Assessment and Reading for Students with Special Needs: 3 semester hours***

Prerequisites: Admission to the Teacher Education Program, completion of all Level II education courses. Must be taken during the same semester as SPEC ED 4989. Examination of current research and issues specific to educating students with disabilities in the area of reading. Topics include historical and contemporary perspectives on reading instruction and assessment, and implementation of evidence-based practice to improve phonological awareness, decoding, word recognition, fluency, comprehension, and vocabulary. Written language will also be addressed as it pertains to reading instruction.

### ***SPEC ED 3349 Cross-Categorical Special Education: 3-6 semester hours***

Prerequisites: Admission to the Teacher Education Program, completion of all Level II education courses. Study of research-based instructional, behavior, and IEP writing strategies used to assist students with cross-categorical disabilities. Students take this during the same semester as their Practicum I course.

### ***SPEC ED 4301 Special Education Orientation: 2 semester hours***

Prerequisites: Admission to Special Education Transition Program or consent of instructor. This course examines characteristics of students in crosscategorical placements. Examination of special education philosophy, historical and legal issues, special education process, and personal traits.

### ***SPEC ED 4315 Speech And Language Of Exceptional Children: 3 semester hours***

Prerequisites: SPEC ED 3318 and Admission to the Teacher Education Program. Study of speech and language development for students with exceptional needs and the techniques employed by classroom teachers to support their learning. Not available for graduate credit.

### ***SPEC ED 4323 Classroom Management and Positive Behavioral Supports in Inclusive Educational Settings: 3 semester hours***

Prerequisites: Completion of Level I and Level II courses. This course establishes healthy and culturally appropriate teacher-student relationships that build successful classroom community and enhance student learning. Teacher candidates develop a culturally appropriate classroom management plan that includes rules, procedures, and expected behaviors and uses problem-solving strategies to resolve behavior problems. In addition, teacher candidates will develop skills to assess, design and implement extensive, individualized, positive behavioral supports. Emphasis is on the candidates developing the social competence of PreK-12 students within diverse inclusive classrooms and engaging families in supportive interactions. Not available for Graduate Credit.

### ***SPEC ED 4325 Behavior Management: 3 semester hours***

Prerequisites: Admission to the Teacher Education Program, completion of all Level II Education courses. Study of classroom management and applied behavior analysis strategies. Focus on teacher as decision maker in the design, implementation, and evaluation of individual and group management programs with emphasis on functional assessment and positive behavior support.

### ***SPEC ED 4342 Transition Issues And Planning: 3 semester hours***

Prerequisites: TCH ED 3313 and Admission to the Teacher Education Program. This course provides information to teachers and human service professionals who work closely with adolescents and young adults with disabilities. Emphasis is placed on understanding and planning for the transition from school to adult life for students with disabilities. Transition outcomes include employment, residential options, and other developmental concerns. Topics include self-determination, career education and planning, interagency collaboration, vocational and residential issues and resources, and family support and involvement.

### ***SPEC ED 4989 Special Education Professional Internship: 3 semester hours***

Prerequisites: Level I & Level II requirements and ELE ED 4989. This course is an intensive professional development experience (9 hours per week for 14 weeks) working in a school setting with students with disabilities. Activities on site include assisting the classroom teacher in all areas of instruction, assessment, and classroom management. This course is to be taken during the semester immediately preceding student teaching. This course is to be taken in conjunction with SPEC ED 3349. Assignments from this course are carried out in the Internship, and Internship experiences inform the activities and discussions in this course. Not available for graduate credit.

### ***SPEC ED 4990 Special Education Student Teaching I: 6 semester hours***

Prerequisites: Completion of Level I, II & III coursework. Must enroll in both SPEC ED 4990 and SPEC ED 4991. Clinical teaching experience in elementary level special education program under university and school supervision. Required of all special education majors; must be taken during the same semester as SPC ED 4991. Not available for graduate credit.

### ***SPEC ED 4991 Special Education Student Teaching II: 6 semester hours***

Prerequisites: Completion of all Level I, II and III coursework. Must enroll in both SPEC ED 4990 and SPEC ED 4991. Clinical teaching experiences in secondary school classrooms under university and school supervision. Must be taken during the same semester as SPEC ED 4990. Required for all majors in special education. Not available for graduate credit.

**SPEC ED 5303 Instructional Practices: 3 semester hours**

Prerequisites: SPEC ED 4301 or consent of instructor This course provides an in-depth examination of methods and techniques for use in the education of students in crosscategorical placements.

**SPEC ED 5305 Planning And Managing The Teaching And Learning Environment: 3 semester hours**

Prerequisites: SPEC ED 4303 or consent of instructor This course provides an in-depth exploration of various behavior management techniques that are particularly applicable for students in cross-categorical placements. Projects on functional behavioral assessment and behavior support plans will be conducted.

**SPEC ED 6315 Understanding/Implementing Speech & Language Interventions that Assist Children with Special Needs: 3 semester hours**

Prerequisites: Graduate Standing. Study of speech and language development for students with exceptional needs and the techniques employed by classroom teachers to support their learning.

**SPEC ED 6325 Advanced Studies in Classroom & Behavior Management: 3 semester hours**

Prerequisite: Graduate Standing. Advanced study of classroom management and applied behavior analysis strategies. Focus on teacher as decision maker in the design, implementation, and evaluation of individual and group management programs with emphasis on functional assessment and positive behavior support.

**SPEC ED 6345 Characteristics and Education of Students with High-Incidence Disabilities: 3 semester hours**

Prerequisites: TCH ED 3313 or an equivalent course in psychology of the exceptional child. Advanced study of characteristics of students with high-incidence and cross categorical disabilities and other pertinent issues including inclusion, assessment, and evaluation practices.

**SPEC ED 6346 Reading Instruction and Intervention in Special Education: 3 semester hours**

Prerequisites: Graduate Standing. This course examines current research and issues specific to educating students with disabilities in the area of reading. Topics will include historical and contemporary perspectives on reading instruction and assessment, and implementation of evidence-based practice to improve phonological awareness, decoding, word recognition, fluency, comprehension, and vocabulary. Written language will also be addressed as it pertains to reading instruction. (No credit earned if credit previously earned from SPEC ED 3346).

**SPEC ED 6372 Screening And Diagnosis Of Developmental Delays: Birth To 5 Years: 3 semester hours**

Prerequisite: ED REM 3721 This course addresses the content, techniques, and special problems related to the assessment of children at risk for developmental delays in the birth to five year age range. Students gain experience in construction, administration and interpretation of assessment tools used with young children. Required for certification in severe handicaps and early childhood-special education.

**SPEC ED 6412 Psychology Of Exceptional Children: 3 semester hours**

An in-depth analysis of the unique psychological problems of exceptional children and youth. Current psychological theories and research emphasized.

**SPEC ED 6415 The Law And Special Education: 3 semester hours**

Prerequisite: Graduate Standing. Special education is governed by an elaborate and extensive body of statutes, regulations, and court decisions. This course will focus on the requirements, history, and evolution of laws impacting special education services; current legal requirements in providing a free appropriate public education (FAPE) to students with disabilities and the procedures to obtain legal information in law libraries and on the Internet; and how to conduct legal research using a variety of sources.

**SPEC ED 6430 Characteristics and Education of Individuals with Low-Incidence Disabilities: 3 semester hours**

Prerequisites: TCH ED 3313 or equivalent course in psychology of the exceptional child; graduate standing. An advanced study of the theoretical and methodological problems related to autism and developmental (low-incidence) disabilities. Particular emphasis on the application of current research findings to issues confronting individuals with autism and developmental disabilities, and family-and community-systems dynamics. Required course for concentration area: Autism and Development Disabilities.

**SPEC ED 6437 Individual and Schoolwide Systems of Positive Behavior Support: 3 semester hours**

Prerequisites: Graduate Standing. Focus on the design of comprehensive, multicomponent behavior support plans for individuals with disabilities who engage in challenging behaviors. Emphasis on simultaneously teaching social behavior and building supportive environments that improve targeted social skills. Based upon research foundations and current developments in maintaining primary (school-wide), secondary (classroom and targeted group), and tertiary (individual) systems of support, skills taught increase the capacity of schools, communities, and families to enjoy improved lifestyles.

**SPEC ED 6440 Disability, Schooling And Culture: 3 semester hours**

Prerequisites: TCH ED 3313 or equivalent An advanced course that will examine foundational issues in social and educational policy for students with disabilities. The course explores the historical, philosophical, sociological and economic dimensions of the recent emphasis on inclusive and community-based support systems for individuals with disabilities and their families. The course will review recent research and experience in the U.S. (primarily) concerning the evolving roles and relationships of families, teachers, administrators, and students with and without disabilities in disabilities in increasingly diverse schools and communities.

**SPEC ED 6443 Characteristics and Education of Students with Learning Disabilities: 3 semester hours**

Prerequisites: TCH ED 3313 or an equivalent course in psychology of exceptional children; graduate standing. Advanced study of the theoretical and methodological problems related to learning disabilities. Particular emphasis on the application of current research findings to the problems confronting learners with learning disabilities.

**SPEC ED 6450 Characteristics and Education of Students with Emotional/Behavioral Disorders: 3 semester hours**

Prerequisites: TCH ED 3313 or an equivalent course in psychology of exceptional children; graduate standing. Advanced study of the problems and characteristics of learners with emotional/behavioral disorders. Particular emphasis on the application of current research findings to problems confronting learners with emotional/behavioral disorders.

***SPEC ED 6462 Introduction To Early Childhood Special Education: 3 semester hours***

Prerequisites: SPEC ED 3313 or equivalent Study of issues and concepts central to special education of young children with disabilities, and at-risk for disabilities, and their families. Focus on program models, screening and assessment procedures, and curriculum concepts. An ecological perspective is emphasized.

***SPEC ED 6463 Curriculum, Methods, And Materials For Early Childhood Special Ed: 3 semester hours***

Prerequisites: SPEC ED 6462. In-depth study of integrated assessment-based curriculum development for learners in early childhood special education. Emphasis on individualized educational planning and implementation for learners and their families.

***SPEC ED 6492 Practicum In Special Education: 3-6 semester hours***

Prerequisites: Two courses in the area of concentration (developmental disabilities, early childhood special education, emotional/behavioral disorders, or learning disabilities). Supervised experience in the education of learners with disabilities in a school or other appropriate setting.

***SPEC ED 6497 Problems: 1-10 semester hours***

Prerequisites: TCH ED 3313 or equivalent and consent of instructor Investigation of a selected problem related to the education of learners with disabilities. To be conducted under the direction of a graduate faculty member.

***SPEC ED 6510 History Of Disability And Special Education: 3 semester hours***

Prerequisite: Consent of Instructor. Provides a historical context for approaching contemporary issues in the education and support of people with disabilities and their families. Requires students to become familiar with methods of retrieval and analysis of historical material.

***SPEC ED 6610 Foundations of Autism Spectrum Disorder: Research to Practice: 3 semester hours***

Prerequisites: Teaching Certificate or Consent of Instructor. The course focuses on characteristics of children and youth with autism spectrum disorders (ASD); trends and issues connected with ASD; and effective practices and strategies for structuring, managing, and promoting functional/behavioral skills development and interaction among children and youth with ASD.

***SPEC ED 6620 Assessment and Interventions for Children and Youth with Autism Spectrum Disorder: 3 semester hours***

Prerequisites: SPEC ED 6610; Teaching Certificate or Consent of Instructor. The course reviews functions of behavior as a foundation for understanding and completing functional behavior assessments; entails interpreting and graphing collected data; and incorporates intervention practice and applied curriculum modifications.

***SPEC ED 6630 Principles of Applied Behavior Analysis: 3 semester hours***

Prerequisites: Graduate Standing. Provides a detailed look at the theories, philosophy, and principles of applied behavior analysis. Focus is on applying these principles to assess behavior and develop and implement best practice interventions for reducing problem behaviors and teaching new behaviors to individuals with autism and other developmental disabilities in a variety of settings. Partially meets requirements of national Board Certified Behavior Analyst licensure exam preparation.

***SPEC ED 6650 Practicum I in Applied Behavior Analysis: 3 semester hours***

Prerequisites: SPEC ED 6630. Provides the opportunity for students to practically apply the principles and standards of ABA in applied settings. Focus is on students actively demonstrating skills in the areas of behavior assessment, behavior intervention development, and implementation, consultation, on-going evaluation, and training others in a variety of settings with a variety of clients. Access to field site required. Partially meets requirements of National Board Certified Behavior Analyst licensure exam preparation.

***SPEC ED 6660 Advanced Applications of Applied Behavior Analysis: 3 semester hours***

Prerequisites: SPEC ED 6630 and SPEC ED 6650. Provides a detailed look at methods of data collection, teaching new skills, and evaluating teaching strategies. Focus is on applying these methods to develop and implement best practice strategies that teach new behaviors to individuals with autism and other developmental disabilities, and evaluating the efficacy of these methods. Partially meets requirements of national Board Certified Behavior Analyst licensure exam preparation.

***SPEC ED 6670 Practicum II in Applied Behavior Analysis: 3 semester hours***

Prerequisites: SPEC ED 6630, SPEC ED 6650, and SPEC ED 6660. Provides the opportunity for students to practically apply the principles and standards of ABA in applied settings. Focus is on students actively demonstrating skills in the areas of behavior assessment, behavior intervention development, and implementation, consultation, ongoing evaluation, and training others in a variety of settings with a variety of clients. Access to field site required. Partially meets requirements of national Board Certified Behavior Analyst licensure exam preparation.

## Courses

***SPEC ED 3318 Inclusive Classrooms: 3 semester hours***

Prerequisites: Completion of Level I courses. This class is an introductory overview of inclusive education, the characteristics of special populations in diverse classrooms, and issues related to compliance with state and federal law in serving students with varying needs. In addition, Individualized Education Plans (IEPs) and the eligibility process will be emphasized. Applicable strategies for the successful inclusion of all students that enhance collaboration among relevant stakeholders will be provided.

***SPEC ED 3345 Cross Categorical Special Education I: 3 semester hours***

Prerequisites: TCH ED 3313 and Admission to the Teacher Ed Program. Study of characteristics of students with cross categorical disabilities and other pertinent issues including inclusion, assessment, and evaluation practices.

***SPEC ED 3346 Literacy Assessment and Reading for Students with Special Needs: 3 semester hours***

Prerequisites: Admission to the Teacher Education Program, completion of all Level II education courses. Must be taken during the same semester as SPEC ED 4989. Examination of current research and issues specific to educating students with disabilities in the area of reading. Topics include historical and contemporary perspectives on reading instruction and assessment, and implementation of evidence-based practice to improve phonological awareness, decoding, word recognition, fluency, comprehension, and vocabulary. Written language will also be addressed as it pertains to reading instruction.



***SPEC ED 3349 Cross-Categorical Special Education: 3-6 semester hours***

Prerequisites: Admission to the Teacher Education Program, completion of all Level II education courses. Study of research-based instructional, behavior, and IEP writing strategies used to assist students with cross-categorical disabilities. Students take this during the same semester as their Practicum I course.

***SPEC ED 4301 Special Education Orientation: 2 semester hours***

Prerequisites: Admission to Special Education Transition Program or consent of instructor This course examines characteristics of students in crosscategorical placements. Examination of special education philosophy, historical and legal issues, special education process, and personal traits.

***SPEC ED 4315 Speech And Language Of Exceptional Children: 3 semester hours***

Prerequisites: SPEC ED 3318 and Admission to the Teacher Education Program. Study of speech and language development for students with exceptional needs and the techniques employed by classroom teachers to support their learning. Not available for graduate credit.

***SPEC ED 4323 Classroom Management and Positive Behavioral Supports in Inclusive Educational Settings: 3 semester hours***

Prerequisites: Completion of Level I and Level II courses. This course establishes healthy and culturally appropriate teacher-student relationships that build successful classroom community and enhance student learning. Teacher candidates develop a culturally appropriate classroom management plan that includes rules, procedures, and expected behaviors and uses problem-solving strategies to resolve behavior problems. In addition, teacher candidates will develop skills to assess, design and implement extensive, individualized, positive behavioral supports. Emphasis is on the candidates developing the social competence of PreK-12 students within diverse inclusive classrooms and engaging families in supportive interactions. Not available for Graduate Credit.

***SPEC ED 4325 Behavior Management: 3 semester hours***

Prerequisites: Admission to the Teacher Education Program, completion of all Level II Education courses. Study of classroom management and applied behavior analysis strategies. Focus on teacher as decision maker in the design, implementation, and evaluation of individual and group management programs with emphasis on functional assessment and positive behavior support.

***SPEC ED 4342 Transition Issues And Planning: 3 semester hours***

Prerequisites: TCH ED 3313 and Admission to the Teacher Education Program. This course provides information to teachers and human service professionals who work closely with adolescents and young adults with disabilities. Emphasis is placed on understanding and planning for the transition from school to adult life for students with disabilities. Transition outcomes include employment, residential options, and other developmental concerns. Topics include self-determination, career education and planning, interagency collaboration, vocational and residential issues and resources, and family support and involvement.

***SPEC ED 4989 Special Education Professional Internship: 3 semester hours***

Prerequisites: Level I & Level II requirements and ELE ED 4989 This course is an intensive professional development experience (9 hours per week for 14 weeks) working in a school setting with students with disabilities. Activities on site include assisting the classroom teacher in all areas of instruction, assessment, and classroom management. This course is to be taken during the semester immediately preceding student teaching. This course is to be taken in conjunction with SPEC ED 3349. Assignments from this course are carried out in the Internship, and Internship experiences inform the activities and discussions in this course. Not available for graduate credit.

***SPEC ED 4990 Special Education Student Teaching I: 6 semester hours***

Prerequisites: Completion of Level I, II & III coursework. Must enroll in both SPEC ED 4990 and SPEC ED 4991. Clinical teaching experience in elementary level special education program under university and school supervision. Required of all special education majors; must be taken during the same semester as SPC ED 4991. Not available for graduate credit.

***SPEC ED 4991 Special Education Student Teaching II: 6 semester hours***

Prerequisites: Completion of all Level I, II and III coursework. Must enroll in both SPEC ED 4990 and SPEC ED 4991. Clinical teaching experiences in secondary school classrooms under university and school supervision. Must be taken during the same semester as SPEC ED 4990. Required for all majors in special education. Not available for graduate credit.

***SPEC ED 5303 Instructional Practices: 3 semester hours***

Prerequisites: SPEC ED 4301 or consent of instructor This course provides an in-depth examination of methods and techniques for use in the education of students in crosscategorical placements.

***SPEC ED 5305 Planning And Managing The Teaching And Learning Environment: 3 semester hours***

Prerequisites: SPEC ED 4303 or consent of instructor This course provides an in-depth exploration of various behavior management techniques that are particularly applicable for students in cross-categorical placements. Projects on functional behavioral assessment and behavior support plans will be conducted.

***SPEC ED 6315 Understanding/Implementing Speech & Language Interventions that Assist Children with Special Needs: 3 semester hours***

Prerequisites: Graduate Standing. Study of speech and language development for students with exceptional needs and the techniques employed by classroom teachers to support their learning.

***SPEC ED 6325 Advanced Studies in Classroom & Behavior Management: 3 semester hours***

Prerequisite: Graduate Standing. Advanced study of classroom management and applied behavior analysis strategies. Focus on teacher as decision maker in the design, implementation, and evaluation of individual and group management programs with emphasis on functional assessment and positive behavior support.

***SPEC ED 6345 Characteristics and Education of Students with High-Incidence Disabilities: 3 semester hours***

Prerequisites: TCH ED 3313 or an equivalent course in psychology of the exceptional child. Advanced study of characteristics of students with high-incidence and cross categorical disabilities and other pertinent issues including inclusion, assessment, and evaluation practices.



**SPEC ED 6346 Reading Instruction and Intervention in Special Education: 3 semester hours**

Prerequisites: Graduate Standing. This course examines current research and issues specific to educating students with disabilities in the area of reading. Topics will include historical and contemporary perspectives on reading instruction and assessment, and implementation of evidence-based practice to improve phonological awareness, decoding, word recognition, fluency, comprehension, and vocabulary. Written language will also be addressed as it pertains to reading instruction. (No credit earned if credit previously earned from SPEC ED 3346).

**SPEC ED 6372 Screening And Diagnosis Of Developmental Delays: Birth To 5 Years: 3 semester hours**

Prerequisite: ED REM 3721 This course addresses the content, techniques, and special problems related to the assessment of children at risk for developmental delays in the birth to five year age range. Students gain experience in construction, administration and interpretation of assessment tools used with young children. Required for certification in severe handicaps and early childhood-special education.

**SPEC ED 6412 Psychology Of Exceptional Children: 3 semester hours**

An in-depth analysis of the unique psychological problems of exceptional children and youth. Current psychological theories and research emphasized.

**SPEC ED 6415 The Law And Special Education: 3 semester hours**

Prerequisite: Graduate Standing. Special education is governed by an elaborate and extensive body of statutes, regulations, and court decisions. This course will focus on the requirements, history, and evolution of laws impacting special education services; current legal requirements in providing a free appropriate public education (FAPE) to students with disabilities and the procedures to obtain legal information in law libraries and on the Internet; and how to conduct legal research using a variety of sources.

**SPEC ED 6430 Characteristics and Education of Individuals with Low-Incidence Disabilities: 3 semester hours**

Prerequisites: TCH ED 3313 or equivalent course in psychology of the exceptional child; graduate standing. An advanced study of the theoretical and methodological problems related to autism and developmental (low-incidence) disabilities. Particular emphasis on the application of current research findings to issues confronting individuals with autism and developmental disabilities, and family-and community-systems dynamics. Required course for concentration area: Autism and Development Disabilities.

**SPEC ED 6437 Individual and Schoolwide Systems of Positive Behavior Support: 3 semester hours**

Prerequisites: Graduate Standing. Focus on the design of comprehensive, multicomponent behavior support plans for individuals with disabilities who engage in challenging behaviors. Emphasis on simultaneously teaching social behavior and building supportive environments that improve targeted social skills. Based upon research foundations and current developments in maintaining primary (school-wide), secondary (classroom and targeted group), and tertiary (individual) systems of support, skills taught increase the capacity of schools, communities, and families to enjoy improved lifestyles.

**SPEC ED 6440 Disability, Schooling And Culture: 3 semester hours**

Prerequisites: TCH ED 3313 or equivalent An advanced course that will examine foundational issues in social and educational policy for students with disabilities. The course explores the historical, philosophical, sociological and economic dimensions of the recent emphasis on inclusive and community-based support systems for individuals with disabilities and their families. The course will review recent research and experience in the U.S. (primarily) concerning the evolving roles and relationships of families, teachers, administrators, and students with and without disabilities in disabilities in increasingly diverse schools and communities.

**SPEC ED 6443 Characteristics and Education of Students with Learning Disabilities: 3 semester hours**

Prerequisites: TCH ED 3313 or an equivalent course in psychology of exceptional children; graduate standing. Advanced study of the theoretical and methodological problems related to learning disabilities. Particular emphasis on the application of current research findings to the problems confronting learners with learning disabilities.

**SPEC ED 6450 Characteristics and Education of Students with Emotional/Behavioral Disorders: 3 semester hours**

Prerequisites: TCH ED 3313 or an equivalent course in psychology of exceptional children; graduate standing. Advanced study of the problems and characteristics of learners with emotional/behavioral disorders. Particular emphasis on the application of current research findings to problems confronting learners with emotional/behavioral disorders.

**SPEC ED 6462 Introduction To Early Childhood Special Education: 3 semester hours**

Prerequisites: SPEC ED 3313 or equivalent Study of issues and concepts central to special education of young children with disabilities, and at-risk for disabilities, and their families. Focus on program models, screening and assessment procedures, and curriculum concepts. An ecological perspective is emphasized.

**SPEC ED 6463 Curriculum, Methods, And Materials For Early Childhood Special Ed: 3 semester hours**

Prerequisites: SPEC ED 6462. In-depth study of integrated assessment-based curriculum development for learners in early childhood special education. Emphasis on individualized educational planning and implementation for learners and their families.

**SPEC ED 6492 Practicum In Special Education: 3-6 semester hours**

Prerequisites: Two courses in the area of concentration (developmental disabilities, early childhood special education, emotional/behavioral disorders, or learning disabilities). Supervised experience in the education of learners with disabilities in a school or other appropriate setting.

**SPEC ED 6497 Problems: 1-10 semester hours**

Prerequisites: TCH ED 3313 or equivalent and consent of instructor Investigation of a selected problem related to the education of learners with disabilities. To be conducted under the direction of a graduate faculty member.

**SPEC ED 6510 History Of Disability And Special Education: 3 semester hours**

Prerequisite: Consent of Instructor. Provides a historical context for approaching contemporary issues in the education and support of people with disabilities and their families. Requires students to become familiar with methods of retrieval and analysis of historical material.

***SPEC ED 6610 Foundations of Autism Spectrum Disorder: Research to Practice: 3 semester hours***

Prerequisites: Teaching Certificate or Consent of Instructor. The course focuses on characteristics of children and youth with autism spectrum disorders (ASD); trends and issues connected with ASD; and effective practices and strategies for structuring, managing, and promoting functional/behavioral skills development and interaction among children and youth with ASD.

***SPEC ED 6620 Assessment and Interventions for Children and Youth with Autism Spectrum Disorder: 3 semester hours***

Prerequisites: SPEC ED 6610; Teaching Certificate or Consent of Instructor. The course reviews functions of behavior as a foundation for understanding and completing functional behavior assessments; entails interpreting and graphing collected data; and incorporates intervention practice and applied curriculum modifications.

***SPEC ED 6630 Principles of Applied Behavior Analysis: 3 semester hours***

Prerequisites: Graduate Standing. Provides a detailed look at the theories, philosophy, and principles of applied behavior analysis. Focus is on applying these principles to assess behavior and develop and implement best practice interventions for reducing problem behaviors and teaching new behaviors to individuals with autism and other developmental disabilities in a variety of settings. Partially meets requirements of national Board Certified Behavior Analyst licensure exam preparation.

***SPEC ED 6650 Practicum I in Applied Behavior Analysis: 3 semester hours***

Prerequisites: SPEC ED 6630. Provides the opportunity for students to practically apply the principles and standards of ABA in applied settings. Focus is on students actively demonstrating skills in the areas of behavior assessment, behavior intervention development, and implementation, consultation, on-going evaluation, and training others in a variety of settings with a variety of clients. Access to field site required. Partially meets requirements of National Board Certified Behavior Analyst licensure exam preparation.

***SPEC ED 6660 Advanced Applications of Applied Behavior Analysis: 3 semester hours***

Prerequisites: SPEC ED 6630 and SPEC ED 6650. Provides a detailed look at methods of data collection, teaching new skills, and evaluating teaching strategies. Focus is on applying these methods to develop and implement best practice strategies that teach new behaviors to individuals with autism and other developmental disabilities, and evaluating the efficacy of these methods. Partially meets requirements of national Board Certified Behavior Analyst licensure exam preparation.

***SPEC ED 6670 Practicum II in Applied Behavior Analysis: 3 semester hours***

Prerequisites: SPEC ED 6630, SPEC ED 6650, and SPEC ED 6660. Provides the opportunity for students to practically apply the principles and standards of ABA in applied settings. Focus is on students actively demonstrating skills in the areas of behavior assessment, behavior intervention development, and implementation, consultation, ongoing evaluation, and training others in a variety of settings with a variety of clients. Access to field site required. Partially meets requirements of national Board Certified Behavior Analyst licensure exam preparation.

## Studio Art

## Courses

***ST ART 1020 Expanded Artforms: 3 semester hours***

A practical and theoretical exploration of contemporary art practices organized around structured assignments that will explore various modes of working in art. This course is designed to assist studio students in developing a personal, non-medium specific approach to art making and problem solving. Lab fee required. Basic computer lab equipment will be provided, though students will need to supply some personal equipment and supplies.

***ST ART 1030 Ceramics I: 3 semester hours***

An introduction to basic methods and theory of ceramics including work with hand-built construction, wheel techniques and glazing. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

***ST ART 1060 Photography I: 3 semester hours***

An introduction to the techniques and aesthetics of digital photography, along with photo editing software and printing techniques. Students must provide a digital camera. Lab fee required. Basic computer lab equipment will be provided, though students will need to supply some personal equipment and supplies.

***ST ART 1061 Introduction to Digital Photography: 3 semester hours***

An introduction to the techniques and aesthetics of digital photography, along with photo editing software and printing techniques. Students must provide a digital camera. Lab fee required. Basic computer lab equipment will be provided, though students will need to supply some personal equipment and supplies. Students who plan to pursue a career in art should enroll in ST ART 1060 rather than ST ART 1061. ST ART 1061 does not satisfy the prerequisite requirement for other courses in Photography beyond the 2000 level, but may count towards Photography electives.

***ST ART 1080 Comics & Cartoon Illustration: 3 semester hours***

A course in creating and appreciating the world of comics and cartoons. This course will investigate the tools and techniques for creating cartoons, cartoon illustrations and the world of comics. Students will create their own cartoons with traditional media and also with computers. While designed for beginners, experienced artists will be encouraged to perfect their personal styles. The class will create and print its own comic book. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

***ST ART 1130 Ceramics II: 3 semester hours***

Prerequisite: ST ART 1030 A continuation of ST ART 1030. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

***ST ART 1132 Sculpture I: 3 semester hours***

An introduction to traditional and contemporary materials, aesthetics, and theories of three-dimensional art. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

***ST ART 1133 Introduction To Fibers And Textiles: 3 semester hours***

Prerequisites: ST ART 1150. Exploration of a variety of on- and off-loom weaving and other fiber and textile media and techniques. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

***ST ART 1140 Drawing I: 3 semester hours***

An introduction to drawing through the study of figure, object, and environment. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1141 Drawing II: 3 semester hours**

Prerequisite: ST ART 1140. The development of drawing skills through continued observation and problems of invention. A further exploration of varied drawing materials and techniques including graphite, charcoal, conte crayon, and inks. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1142 Figure Drawing I: 3 semester hours**

Basic studies of the human form and anatomy from the model in a variety of drawing media. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1143 Figure Drawing II: 3 semester hours**

Prerequisite: ST ART 1142 Continuation of Figure Drawing I. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1150 Design I: 3 semester hours**

Studio problems in the creative use and integration of the elements of two-dimensional design: line, form, space, texture. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1151 Design II: 3 semester hours**

Prerequisite: ST ART 1150 A continuation of ST ART 1150, two-dimensional design, with introduction to color theory. Some application of mixed media problems. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1170 Printmaking I: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 or consent of instructor. An introduction to printmaking techniques, materials, and theories. The course will include work in a variety of print materials. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1173 Printmaking: Screenprinting I: 3 semester hours**

Prerequisite: ST ART 1170 An introduction into the techniques, methods, and aesthetics of screenprinting. Studio problems involving uses and approaches will be emphasized. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1180 Painting I: 3 semester hours**

Prerequisite: ST ART 1140, ST ART 1150 or consent of instructor. An introduction to the use of oil and/or acrylic painting media. Studio problems to develop technical and expressive skills on various surfaces. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1181 Painting II: 3 semester hours**

Prerequisite: ST ART 1180 or consent of instructor Continuation of basic studio problems in painting media. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1210 Graphic Design I: 3 semester hours**

Prerequisite: None. Introduction to graphic design with an emphasis on fundamentals of space, emotion, shape, form, and concept. Projects in design, layout and typography will be addressed. The course is recommended to be taken concurrently with ST ART 1150, Design I. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 1220 Graphic Design II: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1210. Continuing introduction to graphic design, focusing on developing concepts and design process, typographic systems and layout systems. The course is recommended to be taken concurrently with ST ART 2220, Computer Design I. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2100 Advertising Art Fundamentals: 3 semester hours**

Prerequisites: MEDIA ST 2090 or consent of the Coordinator for the Certificate in Advertising. This course introduces students to basic principles of production, including layout, type, color, readability, and image selection. The course is intended for students pursuing a Certificate in Advertising, and does not count towards a degree in Graphic Design.

**ST ART 2160 Photography II: 3 semester hours**

Prerequisite: ST ART 1060. An introduction to the techniques and aesthetics of black and white photography and the darkroom. Students must provide a film camera with adjustable speeds and aperture. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2210 Typography: 3 semester hours**

Prerequisites: ST ART 1220 or consent of the instructor. Course intends to instill a sense of responsibility relative to typographic and production design, while developing the student's capacity for critical thinking and general typographic rules, visual hierarchy of typographic elements, classical typographic tradition, book design, awareness of typographic aesthetic.

**ST ART 2212 Image Making for Graphic Design: 3 semester hours**

Prerequisites: ST ART 1220 or instructor's consent. This course teaches skills of making images and custom type for use in visual communication. Topics covered include a survey of traditional and experimental illustration techniques with an emphasis on creation of original imagery. The class will discuss how hand images are further developed and combined on the computer for use in design. Creativity, discovery, and craft are highly emphasized. Lab fee required.

**ST ART 2220 Computer Design I: 3 semester hours**

Prerequisite: ST ART 1150 and ST ART 1210. An introduction to the use of computer graphics for the creation of artwork applicable to the graphic design industry. The course is recommended to be taken concurrently with ST ART 1220, Graphic Design II. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2221 Computer Design II: 3 semester hours**

Prerequisite: ST ART 2220 Designed to familiarize students with the methods processes, software, and computer functions used in graphic design and illustration. The course is recommended to be taken concurrently with ST ART 3310, Graphic Design III. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2240 Drawing III: 3 semester hours**

Prerequisites: ST ART 1140 and ST ART 1141 This course offers studio problems designed to further the development of drawing skills in various media. Limited color will also be introduced. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.



**ST ART 2241 Drawing IV: 3 semester hours**

Prerequisite: ST ART 2240 Studio problems with emphasis on color and multi-material approach to drawing. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2242 Figure Drawing III: 3 semester hours**

Prerequisites: ST ART 1142 and ST ART 1143 Advanced study of the human form and anatomy from the model in a variety of drawing media. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2243 Figure Drawing IV: 3 semester hours**

Prerequisite: ST ART 2242. Continuation of ST ART 2242. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2250 Composition: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1151 An investigation of the use of formal design elements as used in historic and contemporary art. Weekly studio problems and discussions will concentrate on skills, application, and unifying effects of compositional elements on a variety of visual art forms. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2251 Design III: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1151. Advanced studio problems in design materials. Use of twodimensional and three-dimensional mixed media. Experimental use of materials and media will be introduced. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2262 Color Photography I: 3 semester hours**

Prerequisite: ST ART 1060 or equivalent An introduction to the techniques and aesthetics of color photography. Mastering the printing and finishing processes and producing a color print portfolio will be the requirements of this class. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2263 Digital Color Process: 3 semester hours**

Prerequisites: ST ART 1060. An extended study in the process of digital printing. The class will help students refine their techniques using digital color management and explore various techniques to assure the closest relationship between the image on the monitor and the resulting print. Hands-on training with different digital printers, digital media and scanning techniques will be offered. This class will involve both learning exercises and the creation of original computer-aided photographic art. Lab fee required. Students must provide a digital camera. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2264 Non-Silver Photography: 3 semester hours**

Prerequisites: ST ART 1060 and ST ART 2160. An introduction to the aesthetics and techniques of nontraditional photographic processes. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2265 Commercial Applications In Photography: Portrait Photography: 3 semester hours**

Prerequisites: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of portrait photography. Techniques of lighting, posing, and studios equipment will be explored. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2266 Commercial Applications in Photography: Product Photography: 3 semester hours**

Prerequisites: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of product Photography. Techniques of lighting, posing and studio equipment will be explored. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee is required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2267 The Constructed Photograph: 3 semester hours**

Prerequisites: ST ART 2263. An exploration of the constructed photograph through the art of digital collage. The class will survey the history of hand-created photographs. In addition, students will learn advanced Photoshop techniques in order to create original computer-aided photographic art. Lab fee required. Basic computer equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2268 Commercial Applications in Photography: Event Photography: 3 semester hours**

Prerequisites: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of event photography. The class will focus on a variety of event photography types, including weddings, corporate and non-profit events, photoboosts, concerts, etc. Special emphasis will be placed on photographing for the client. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2269 Commercial Appl in Photo: Photojournalism, Documentary, & Publ Relations Photography: 3 semester hours**

Prerequisite: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of photojournalism, documentary, and public relations photography. The class will concentrate on a variety of photographic applications focusing on news and editorial imagemaking, as well as training the student in public relations assignments. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2271 Printmaking II: 3 semester hours**

Prerequisite: ST ART 1170 or consent of instructor A continuation of ST ART 1170. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2272 Printmaking:Lithography I: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 or consent of instructor. An introduction to printmaking skills and theory in stone and plate lithography. Studio problems in the use of materials and equipment. Attention will be given to individual development. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.



**ST ART 2273 Printmaking: Etching: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 or consent of instructor. An introduction to printmaking skills and theory of contemporary etching practices. Development of skills and aesthetic judgements in the media using non-toxic etching processes. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2274 Printmaking And Relief: 3 semester hours**

Prerequisites: ST ART 1170 and ST ART 2271 Advanced problems in relief printmaking. Work in wood and mixed materials. Development of skills and aesthetic judgments in the media. May be repeated for credit with consent of instructor. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2280 Painting III: 3 semester hours**

Prerequisite: ST ART 1181 or consent of instructor. Advanced studio problems in painting media. Attention paid to individual development of theory, expression, and technique. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2281 Painting IV: 3 semester hours**

Prerequisite: ST ART 2280 A continuation of ST ART 2280. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2283 Watercolor Painting: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 Beginning problems in watercolor painting. Includes the study of traditional and contemporary approaches to color, color techniques, and treatment of papers. May be repeated for credit. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2290 Special Study: 1-10 semester hours**

Prerequisites: Junior/Senior Standing And Consent Of Department And Instructor Independent Study Through Readings, Reports Or Field Research. Lab Fee Required. Basic Studio Equipment Will Be Provided Though Students Will Need To Supply Some Personal Equipment And Supplies.

**ST ART 3074 Special Topics In Studio Art: 3 semester hours**

Prerequisites: Minimum completion of 18 hours in Studio Art. Selected topics in studio studies. May be repeated for credit with a change of topic. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3260 Photography III: 3 semester hours**

Prerequisite: ST ART 2160 An exploration into contemporary theories and trends in photography. Advanced projects, portfolios and techniques will be expected from those enrolled. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3263 Digital Color Portfolio: 3 semester hours**

Prerequisites: ST ART 2263. Intermediate exploration of the aesthetics and techniques of digital photography including an investigation of color management in printing. Students will produce one or more portfolios of digital images. Lab fee required. Basic lab equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3310 Graphic Design III: 3 semester hours**

Prerequisite: ST ART 1220 and ST ART 2220. Advanced studio problems to further the understanding of design and its relationship to typographic elements, illustration, and communication. The course will encourage both conceptual and technical development of the designer. The course is recommended to be taken concurrently with ST ART 2221, Computer Design II. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3311 Graphic Design IV: 3 semester hours**

Prerequisite: ST ART 3310 and ST ART 2221. Further studio problems in the graphic arts. The course is recommended to be taken concurrently with ST ART 2210, Typography. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3312 Advanced Topics in Graphic Design: 3 semester hours**

Prerequisites: ST ART 3311 or permission of instructor. Studies of selected topics, which will vary. May be repeated for credit with a different topic, for a maximum of 9 credit hours. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3340 Advanced Problems In Drawing I: 3 semester hours**

Prerequisite: ST ART 2241 This course is focused on professional-level art and portfolio production. It offers studio problems designed to further the development of drawing skills. Emphasis will be given to the study of drawing as an independent art form. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3341 Advanced Problems In Drawing II: 3 semester hours**

Prerequisite: ST ART 3340 A continuation of ST ART 3340. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3350 Studio Art Internship: 1-6 semester hours**

Prerequisites: Junior/Senior standing in studio art and consent of the faculty advisor. The internship provides experience in design firms, professional art studios, or comparable settings. Students will assist professionals in the diverse duties associated with studio art activities. Course assignments may include research assignments and/or reports to be reviewed by the faculty advisor and/or supervisor. May be repeated for credit, up to a maximum of 6 credit hours.

**ST ART 3363 Special Topics In Photography: 3 semester hours**

Prerequisites: ST ART 2160. Photography II & permission of advisor Selected topics in photographic practice. May be repeated for credit with permission of advisor. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3370 Advanced Problems In Printmaking I: 3 semester hours**

Prerequisite: ST ART 2274. This course is focused upon professional-level art and portfolio production. After completion of this and the preceding course, students should be ready to meet the artistic and intellectual demands of today's visual art world. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3371 Advanced Problems In Printmaking II: 3 semester hours**

Prerequisite: ST ART 3370 A continuation of ST ART 3370. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3372 Advanced Lithography: 3 semester hours**

Prerequisite: ST ART 1173 Continuing problems in lithography with problems in black and white, photolithography, and/or color. May be repeated for credit. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3380 Advanced Problems In Painting I: 3 semester hours**

Prerequisite: ST ART 2281 This course is focused on professional-level art and portfolio production. Non-traditional materials might be explored. Attention is focused on individual development of painting theory, self-expression, and advanced techniques. The student is expected to assume a substantial responsibility with regard to direction, motivation, and content. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3381 Advanced Problems In Painting II: 3 semester hours**

Prerequisite: ST ART 3380 A continuation of portfolio production in ST ART 3380. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3383 Advanced Problems In Graphic Design I: 3 semester hours**

Prerequisite: ST ART 3311 and ST ART 2210. This course is focused on professional-level art and portfolio production. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3384 Advanced Problems In Graphic Design II: 3 semester hours**

Prerequisite: ST ART 3383. A continuation of ST ART 3383. The course includes the preparation of a faculty-reviewed portfolio. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3390 Special Study: 1-10 semester hours**

Prerequisite: Junior/senior standing and consent of department chairperson and instructor. Independent study through readings, reports, or field research. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3391 Advanced Problems In Photography I: 3 semester hours**

Prerequisites: ST ART 2263 and ST ART 3260. This course is focused on professional-level art and portfolio production. Students may employ black and white, color, nonsilver, or other traditional or non-traditional press for projects in this course. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3392 Advanced Problems In Photography II: 3 semester hours**

Prerequisite: ST ART 3391 A continuation of ST ART 3391. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 4389 Graphic Design Studio: 3 semester hours**

Prerequisites: ST ART 3384 or permission of instructor Students will work on actual client projects in a studio setting from creative concept through client presentation. Studies will include client interviews, project planning, studio operations, project budget and estimating, vendor selection, prepress preparation, working in creative groups and professional presentations.

**ST ART 4490 Senior Seminar In Photography I: 3 semester hours**

Prerequisite: Senior Standing and ST ART 3392. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Fall semester.

**ST ART 4491 Senior Seminar In Photography II: 3 semester hours**

Prerequisites: Senior standing and ST ART 4490. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Spring semester.

**ST ART 4495 Senior Studio Seminar: 3 semester hours**

Prerequisites: Senior standing and ST ART 3381, ST ART 3341, ST ART 3392 or ST ART 3371. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Fall Semester.

**ST ART 4496 Senior Studio Seminar: 3 semester hours**

Prerequisites: Senior standing and ST ART 4495. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Winter Semester.

**ST ART 4497 Senior Seminar In Graphic Design I: 3 semester hours**

Prerequisites: Senior standing and ST ART 3384. Students must pass the junior portfolio review. Weekly critiques and discussions of technical and professional issues. Will instruct students in the methods of professional preparation. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 4498 Senior Seminar In Graphic Design II: 3 semester hours**

Prerequisites: ST ART 4497. Continuation of ST ART 4497. Will instruct students in the methods of professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 5590 Special Study: 1-6 semester hours**

Prerequisites: Graduate standing and consent of instructor. Independent study through art making, readings, reports, or field research. Studio Art fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies. May be retaken for credit with consent of instructor.

## Courses

**ST ART 1020 Expanded Artforms: 3 semester hours**

A practical and theoretical exploration of contemporary art practices organized around structured assignments that will explore various modes of working in art. This course is designed to assist studio students in developing a personal, non-medium specific approach to art making and problem solving. Lab fee required. Basic computer lab equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 1030 Ceramics I: 3 semester hours**

An introduction to basic methods and theory of ceramics including work with hand-built construction, wheel techniques and glazing. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1060 Photography I: 3 semester hours**

An introduction to the techniques and aesthetics of digital photography, along with photo editing software and printing techniques. Students must provide a digital camera. Lab fee required. Basic computer lab equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 1061 Introduction to Digital Photography: 3 semester hours**

An introduction to the techniques and aesthetics of digital photography, along with photo editing software and printing techniques. Students must provide a digital camera. Lab fee required. Basic computer lab equipment will be provided, though students will need to supply some personal equipment and supplies. Students who plan to pursue a career in art should enroll in ST ART 1060 rather than ST ART 1061. ST ART 1061 does not satisfy the prerequisite requirement for other courses in Photography beyond the 2000 level, but may count towards Photography electives.

**ST ART 1080 Comics & Cartoon Illustration: 3 semester hours**

A course in creating and appreciating the world of comics and cartoons. This course will investigate the tools and techniques for creating cartoons, cartoon illustrations and the world of comics. Students will create their own cartoons with traditional media and also with computers. While designed for beginners, experienced artists will be encouraged to perfect their personal styles. The class will create and print its own comic book. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1130 Ceramics II: 3 semester hours**

Prerequisite: ST ART 1030 A continuation of ST ART 1030. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1132 Sculpture I: 3 semester hours**

An introduction to traditional and contemporary materials, aesthetics, and theories of three-dimensional art. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1133 Introduction To Fibers And Textiles: 3 semester hours**

Prerequisites: ST ART 1150. Exploration of a variety of on- and off-loom weaving and other fiber and textile media and techniques. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 1140 Drawing I: 3 semester hours**

An introduction to drawing through the study of figure, object, and environment. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1141 Drawing II: 3 semester hours**

Prerequisite: ST ART 1140. The development of drawing skills through continued observation and problems of invention. A further exploration of varied drawing materials and techniques including graphite, charcoal, conte crayon, and inks. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1142 Figure Drawing I: 3 semester hours**

Basic studies of the human form and anatomy from the model in a variety of drawing media. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1143 Figure Drawing II: 3 semester hours**

Prerequisite: ST ART 1142 Continuation of Figure Drawing I. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1150 Design I: 3 semester hours**

Studio problems in the creative use and integration of the elements of two-dimensional design: line, form, space, texture. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1151 Design II: 3 semester hours**

Prerequisite: ST ART 1150 A continuation of ST ART 1150, two-dimensional design, with introduction to color theory. Some application of mixed media problems. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1170 Printmaking I: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 or consent of instructor. An introduction to printmaking techniques, materials, and theories. The course will include work in a variety of print materials. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1173 Printmaking: Screenprinting I: 3 semester hours**

Prerequisite: ST ART 1170 An introduction into the techniques, methods, and aesthetics of screenprinting. Studio problems involving uses and approaches will be emphasized. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1180 Painting I: 3 semester hours**

Prerequisite: ST ART 1140, ST ART 1150 or consent of instructor. An introduction to the use of oil and/or acrylic painting media. Studio problems to develop technical and expressive skills on various surfaces. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1181 Painting II: 3 semester hours**

Prerequisite: ST ART 1180 or consent of instructor Continuation of basic studio problems in painting media. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 1210 Graphic Design I: 3 semester hours**

Prerequisite: None. Introduction to graphic design with an emphasis on fundamentals of space, emotion, shape, form, and concept. Projects in design, layout and typography will be addressed. The course is recommended to be taken concurrently with ST ART 1150, Design I. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 1220 Graphic Design II: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1210. Continuing introduction to graphic design, focusing on developing concepts and design process, typographic systems and layout systems. The course is recommended to be taken concurrently with ST ART 2220, Computer Design I. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.



**ST ART 2100 Advertising Art Fundamentals: 3 semester hours**

Prerequisites: MEDIA ST 2090 or consent of the Coordinator for the Certificate in Advertising. This course introduces students to basic principles of production, including layout, type, color, readability, and image selection. The course is intended for students pursuing a Certificate in Advertising, and does not count towards a degree in Graphic Design.

**ST ART 2160 Photography II: 3 semester hours**

Prerequisite: ST ART 1060. An introduction to the techniques and aesthetics of black and white photography and the darkroom. Students must provide a film camera with adjustable speeds and aperture. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2210 Typography: 3 semester hours**

Prerequisites: ST ART 1220 or consent of the instructor. Course intends to instill a sense of responsibility relative to typographic and production design, while developing the student's capacity for critical thinking and general typographic rules, visual hierarchy of typographic elements, classical typographic tradition, book design, awareness of typographic aesthetic.

**ST ART 2212 Image Making for Graphic Design: 3 semester hours**

Prerequisites: ST ART 1220 or instructor's consent. This course teaches skills of making images and custom type for use in visual communication. Topics covered include a survey of traditional and experimental illustration techniques with an emphasis on creation of original imagery. The class will discuss how hand images are further developed and combined on the computer for use in design. Creativity, discovery, and craft are highly emphasized. Lab fee required.

**ST ART 2220 Computer Design I: 3 semester hours**

Prerequisite: ST ART 1150 and ST ART 1210. An introduction to the use of computer graphics for the creation of artwork applicable to the graphic design industry. The course is recommended to be taken concurrently with ST ART 1220, Graphic Design II. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2221 Computer Design II: 3 semester hours**

Prerequisite: ST ART 2220 Designed to familiarize students with the methods processes, software, and computer functions used in graphic design and illustration. The course is recommended to be taken concurrently with ST ART 3310, Graphic Design III. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2240 Drawing III: 3 semester hours**

Prerequisites: ST ART 1140 and ST ART 1141 This course offers studio problems designed to further the development of drawing skills in various media. Limited color will also be introduced. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2241 Drawing IV: 3 semester hours**

Prerequisite: ST ART 2240 Studio problems with emphasis on color and multi-material approach to drawing. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2242 Figure Drawing III: 3 semester hours**

Prerequisites: ST ART 1142 and ST ART 1143 Advanced study of the human form and anatomy from the model in a variety of drawing media. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2243 Figure Drawing IV: 3 semester hours**

Prerequisite: ST ART 2242. Continuation of ST ART 2242. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2250 Composition: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1151 An investigation of the use of formal design elements as used in historic and contemporary art. Weekly studio problems and discussions will concentrate on skills, application, and unifying effects of compositional elements on a variety of visual art forms. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2251 Design III: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1151. Advanced studio problems in design materials. Use of twodimensional and three-dimensional mixed media. Experimental use of materials and media will be introduced. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2262 Color Photography I: 3 semester hours**

Prerequisite: ST ART 1060 or equivalent An introduction to the techniques and aesthetics of color photography. Mastering the printing and finishing processes and producing a color print portfolio will be the requirements of this class. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2263 Digital Color Process: 3 semester hours**

Prerequisites: ST ART 1060. An extended study in the process of digital printing. The class will help students refine their techniques using digital color management and explore various techniques to assure the closest relationship between the image on the monitor and the resulting print. Hands-on training with different digital printers, digital media and scanning techniques will be offered. This class will involve both learning exercises and the creation of original computer-aided photographic art. Lab fee required. Students must provide a digital camera. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2264 Non-Silver Photography: 3 semester hours**

Prerequisites: ST ART 1060 and ST ART 2160. An introduction to the aesthetics and techniques of nontraditional photographic processes. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2265 Commercial Applications In Photography: Portrait Photography: 3 semester hours**

Prerequisites: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of portrait photography. Techniques of lighting, posing, and studios equipment will be explored. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2266 Commercial Applications in Photography: Product Photography: 3 semester hours**

Prerequisites: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of product Photography. Techniques of lighting, posing and studio equipment will be explored. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee is required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.



**ST ART 2267 The Constructed Photograph: 3 semester hours**

Prerequisites: ST ART 2263. An exploration of the constructed photograph through the art of digital collage. The class will survey the history of hand-created photographs. In addition, students will learn advanced Photoshop techniques in order to create original computer-aided photographic art. Lab fee required. Basic computer equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2268 Commercial Applications in Photography: Event Photography: 3 semester hours**

Prerequisites: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of event photography. The class will focus on a variety of event photography types, including weddings, corporate and non-profit events, photobooths, concerts, etc. Special emphasis will be placed on photographing for the client. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2269 Commercial Appl in Photo: Photojournalism, Documentary, & Publ Relations Photography: 3 semester hours**

Prerequisite: ST ART 2263 or consent of instructor. Exploration of issues and applications within the field of photojournalism, documentary, and public relations photography. The class will concentrate on a variety of photographic applications focusing on news and editorial imagemaking, as well as training the student in public relations assignments. This class will involve both learning exercises and the creation of original computer-aided photographic art. Students must provide a digital camera. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2271 Printmaking II: 3 semester hours**

Prerequisite: ST ART 1170 or consent of instructor A continuation of ST ART 1170. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2272 Printmaking:Lithography I: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 or consent of instructor. An introduction to printmaking skills and theory in stone and plate lithography. Studio problems in the use of materials and equipment. Attention will be given to individual development. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2273 Printmaking: Etching: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 or consent of instructor. An introduction to printmaking skills and theory of contemporary etching practices. Development of skills and aesthetic judgements in the media using non-toxic etching processes. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 2274 Printmaking And Relief: 3 semester hours**

Prerequisites: ST ART 1170 and ST ART 2271 Advanced problems in relief printmaking. Work in wood and mixed materials. Development of skills and aesthetic judgments in the media. May be repeated for credit with consent of instructor. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2280 Painting III: 3 semester hours**

Prerequisite: ST ART 1181 or consent of instructor. Advanced studio problems in painting media. Attention paid to individual development of theory, expression, and technique. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2281 Painting IV: 3 semester hours**

Prerequisite: ST ART 2280 A continuation of ST ART 2280. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2283 Watercolor Painting: 3 semester hours**

Prerequisites: ST ART 1150 and ST ART 1141 Beginning problems in watercolor painting. Includes the study of traditional and contemporary approaches to color, color techniques, and treatment of papers. May be repeated for credit. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 2290 Special Study: 1-10 semester hours**

Prerequisites: Junior/Senior Standing And Consent Of Department And Instructor Independent Study Through Readings, Reports Or Field Research. Lab Fee Required. Basic Studio Equipment Will Be Provided Though Students Will Need To Supply Some Personal Equipment And Supplies.

**ST ART 3074 Special Topics In Studio Art: 3 semester hours**

Prerequisites: Minimum completion of 18 hours in Studio Art. Selected topics in studio studies. May be repeated for credit with a change of topic. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3260 Photography III: 3 semester hours**

Prerequisite: ST ART 2160 An exploration into contemporary theories and trends in photography. Advanced projects, portfolios and techniques will be expected from those enrolled. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3263 Digital Color Portfolio: 3 semester hours**

Prerequisites: ST ART 2263. Intermediate exploration of the aesthetics and techniques of digital photography including an investigation of color management in printing. Students will produce one or more portfolios of digital images. Lab fee required. Basic lab equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3310 Graphic Design III: 3 semester hours**

Prerequisite: ST ART 1220 and ST ART 2220. Advanced studio problems to further the understanding of design and its relationship to typographic elements, illustration, and communication. The course will encourage both conceptual and technical development of the designer. The course is recommended to be taken concurrently with ST ART 2221, Computer Design II. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3311 Graphic Design IV: 3 semester hours**

Prerequisite: ST ART 3310 and ST ART 2221. Further studio problems in the graphic arts. The course is recommended to be taken concurrently with ST ART 2210, Typography. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3312 Advanced Topics in Graphic Design: 3 semester hours**

Prerequisites: ST ART 3311 or permission of instructor. Studies of selected topics, which will vary. May be repeated for credit with a different topic, for a maximum of 9 credit hours. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3340 Advanced Problems In Drawing I: 3 semester hours**

Prerequisite: ST ART 2241 This course is focused on professional-level art and portfolio production. It offers studio problems designed to further the development of drawing skills. Emphasis will be given to the study of drawing as an independent art form. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3341 Advanced Problems In Drawing II: 3 semester hours**

Prerequisite: ST ART 3340 A continuation of ST ART 3340. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3350 Studio Art Internship: 1-6 semester hours**

Prerequisites: Junior/Senior standing in studio art and consent of the faculty advisor. The internship provides experience in design firms, professional art studios, or comparable settings. Students will assist professionals in the diverse duties associated with studio art activities. Course assignments may include research assignments and/or reports to be reviewed by the faculty advisor and/or supervisor. May be repeated for credit, up to a maximum of 6 credit hours.

**ST ART 3363 Special Topics In Photography: 3 semester hours**

Prerequisites: ST ART 2160. Photography II & permission of advisor Selected topics in photographic practice. May be repeated for credit with permission of advisor. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3370 Advanced Problems In Printmaking I: 3 semester hours**

Prerequisite: ST ART 2274. This course is focused upon professional-level art and portfolio production. After completion of this and the preceding course, students should be ready to meet the artistic and intellectual demands of today's visual art world. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3371 Advanced Problems In Printmaking II: 3 semester hours**

Prerequisite: ST ART 3370 A continuation of ST ART 3370. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3372 Advanced Lithography: 3 semester hours**

Prerequisite: ST ART 1173 Continuing problems in lithography with problems in black and white, photolithography, and/or color. May be repeated for credit. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3380 Advanced Problems In Painting I: 3 semester hours**

Prerequisite: ST ART 2281 This course is focused on professional-level art and portfolio production. Non-traditional materials might be explored. Attention is focused on individual development of painting theory, self-expression, and advanced techniques. The student is expected to assume a substantial responsibility with regard to direction, motivation, and content. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3381 Advanced Problems In Painting II: 3 semester hours**

Prerequisite: ST ART 3380 A continuation of portfolio production in ST ART 3380. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3383 Advanced Problems In Graphic Design I: 3 semester hours**

Prerequisite: ST ART 3311 and ST ART 2210. This course is focused on professional-level art and portfolio production. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3384 Advanced Problems In Graphic Design II: 3 semester hours**

Prerequisite: ST ART 3383. A continuation of ST ART 3383. The course includes the preparation of a faculty-reviewed portfolio. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 3390 Special Study: 1-10 semester hours**

Prerequisite: Junior/senior standing and consent of department chairperson and instructor. Independent study through readings, reports, or field research. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3391 Advanced Problems In Photography I: 3 semester hours**

Prerequisites: ST ART 2263 and ST ART 3260. This course is focused on professional-level art and portfolio production. Students may employ black and white, color, nonsilver, or other traditional or non-traditional press for projects in this course. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 3392 Advanced Problems In Photography II: 3 semester hours**

Prerequisite: ST ART 3391 A continuation of ST ART 3391. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 4389 Graphic Design Studio: 3 semester hours**

Prerequisites: ST ART 3384 or permission of instructor Students will work on actual client projects in a studio setting from creative concept through client presentation. Studies will include client interviews, project planning, studio operations, project budget and estimating, vendor selection, prepress preparation, working in creative groups and professional presentations.

**ST ART 4490 Senior Seminar In Photography I: 3 semester hours**

Prerequisite: Senior Standing and ST ART 3392. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Fall semester.

**ST ART 4491 Senior Seminar In Photography II: 3 semester hours**

Prerequisites: Senior standing and ST ART 4490. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Spring semester.

**ST ART 4495 Senior Studio Seminar: 3 semester hours**

Prerequisites: Senior standing and ST ART 3381, ST ART 3341, ST ART 3392 or ST ART 3371. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Fall Semester.

**ST ART 4496 Senior Studio Seminar: 3 semester hours**

Prerequisites: Senior standing and ST ART 4495. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Winter Semester.

**ST ART 4497 Senior Seminar In Graphic Design I: 3 semester hours**

Prerequisites: Senior standing and ST ART 3384. Students must pass the junior portfolio review. Weekly critiques and discussions of technical and professional issues. Will instruct students in the methods of professional preparation. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

**ST ART 4498 Senior Seminar In Graphic Design II: 3 semester hours**

Prerequisites: ST ART 4497. Continuation of ST ART 4497. Will instruct students in the methods of professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

**ST ART 5590 Special Study: 1-6 semester hours**

Prerequisites: Graduate standing and consent of instructor. Independent study through art making, readings, reports, or field research. Studio Art fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies. May be retaken for credit with consent of instructor.

## Teacher Education

### Courses

**TCH ED 2209 Foundations of Teaching in American Schools: 3 semester hours**

Explores the multiple roles and functions of professional teaching including: communication, leadership, management skills, use of technology, identification of needs of diverse populations and an examination of other selected concepts and philosophies underlying American public education. Portfolio preparation will be introduced. A minimum of 15 field experience hours required.

**TCH ED 2210 Introduction To Teaching: 3 semester hours**

Explores the multiple roles and functions of professional teaching including: communication, leadership, management skills, use of technology, and identification of needs of diverse populations. Portfolio preparation will be introduced. A minimum of 15 field experience hours required.

**TCH ED 2211 Introduction To American Schools: 3 semester hours**

One of three introductory, prerequisite courses to the Teacher Education program. An examination of selected concepts and principles underlying American public education. A minimum of 4 field experience hours required.

**TCH ED 2311 Foundations In Urban Education And Social Justice: 3 semester hours**

Prerequisites: Enrollment in the Minor in Urban Education or permission of the instructor. An introductory course that examines the concepts and principles underlying American public education with specific attention to urban school systems. Issues of equity and social justice in public education are analyzed from multiple perspectives.

**TCH ED 3100 Education for Social & Civic Responsibility: 3 semester hours**

Equips students with the knowledge and skills needed to integrate an emphasis on civic and social responsibility, including social justice, into their own teaching. Includes a service learning project and requires reflection on project and in-class experiences, course readings, and personal and professional goals and development.

**TCH ED 3210 General Linguistics in Tchg English to Speakers of Other Languages: 3 semester hours**

Prerequisites: Completion of Level I. An introduction to the historical, legal and pedagogical frameworks relating to Teaching English to Speakers of Other Languages (TESOL), and bilingualism. Students explore principles of language systems including English and the function of language in social and academic settings.

**TCH ED 3211 Basic Principles of Second and Foreign Language Acquisition: 3 semester hours**

Prerequisites: TCH ED 3210. Covers the principles of language acquisition and the factors which influence learning. Students investigate first and second language acquisition processes including socio-cultural and cognitive factors in relation to second language acquisition (SLA). The course analyzes phonology, morphology, syntax, semantics, and discourse, within a communicative framework, which directly relates to instructional strategies.

**TCH ED 3212 Sociolinguistics and communication in the Classroom: 3 semester hours**

Prerequisites: TCH ED 3210. Students explore the impact of culture and society on verbal and non-verbal communication, learning styles, and second language acquisition. The course introduces concepts relating to the acculturation process, cross-cultural and intracultural communication. Students develop strategies to enhance home, school and community relations and impact of culture on perceptions, communication, behaviors, and learning.

**TCH ED 3213 Performance-based Assessment for TOSOL: 3 semester hours**

Prerequisite: TCH ED 3210. By exploring the role of assessment in culturally and linguistically diverse classrooms, this course provides an overview of identifying and placing students at the district and school level. Formal and informal models of assessment are examined as students reflect on the administration and interpretation of equitable measurement strategies and how assessment can reinforce instruction.

**TCH ED 3214 Material Development and Methods for TESOL: 3 semester hours**

Prerequisites: TCH ED 3210, TCH ED 3211, TCH ED 3212, TCH ED 3213, and TCH ED 4391. Students integrate knowledge of second language acquisition research in instructional methodologies in this course. Students will also incorporate theories of linguistics, assessment models, and instructional technology into their material development to meet the needs of diverse English language learners.

**TCH ED 3215 Field Experiences in TESOL: 3 semester hours**

Prerequisites: TCH ED 3210, TCH ED 3212, and TCH ED 3214 or concurrently taking TCH ED 3214. Students observe and reflect on actual classroom practices as well as complete a student's needs analysis and placement tests. The students implement the strategies for advocating and collaborating on behalf of students from diverse language backgrounds. This is a supervised field experience.

**TCH ED 3310 Methods of Teaching With Technology: 2 semester hours**

Prerequisite: TCH ED 2209, ED PSY 2212, or equivalent and admission to Teacher Education Program. Skill development in transforming content into instruction through various teaching methods and educational technologies. Emphasis on differentiating instruction, inquiry learning, and reflecting on practice. Recommended that this course be taken concurrently with ED TECH 3135.

**TCH ED 3313 Psychology of the Exceptional Child: 3 semester hours**

Prerequisites: level I or equivalent. Introductory overview of the field of special education including historical developments, characteristics of special populations, and compliance with state and federal regulations.

**TCH ED 3315 Literacy Learning And Instruction: 3 semester hours**

Prerequisites: Admission to Teacher Education program. May take concurrently with ED PSY 3312 and TCH ED 3313 or equivalents; may not be taken before ED PSY 3312 and TCH ED 3313 or equivalents. Analysis of methods, materials, frameworks, and technology for the effective teaching of literacy to young children, children with special needs, and children in PreK-6 education settings. Emphasis on the role of language experience, phonics, semantics, syntactics, pragmatics, schema theory, and metacognition in literacy development. A total of 20 field experience hours including observation, assessing children's literacy interests and development, and teaching lessons in a school classroom setting are required in addition to scheduled course time. This course may be applied toward a Literacy Minor.

**TCH ED 3316 The Professional Portfolio: 1 semester hour**

Prerequisites: Junior standing or consent of instructor. Students learn the knowledge and skills to develop an electronic teaching portfolio, writing reflective rationales for standards and choosing appropriate artifacts and using technology tools for successful presentation.

**TCH ED 4391 Literacy for Adolescent Learners in Content Areas: 3 semester hours**

Prerequisites: Admission to the Teacher Education Program. Examines the teaching of multiple literacies including reading, writing, speaking and critical thinking in the content areas. Implications of diverse cultures and languages and their relationship to reading will be explored. Field experience hours are required in addition to scheduled course time.

**TCH ED 4988 Teaching and Learning in Urban Schools: 3 semester hours**

Prerequisites: Enrollment in the Minor in Urban Education or permission of the instructor. The capstone course for the Minor in Urban Education. Students design and implement a classroom-based, action research project in an urban school that integrates differentiated instruction, culturally relevant and sensitive teaching strategies, assessing children's learning to meet individual needs, and implementing inquiry-based projects.

**TCH ED 5310 Instructional Design: 3 semester hours**

Prerequisites: Graduate standing, TCH ED 5311, participation in an initial teacher preparation program, & consent of instructor Skill development in planning teaching units, instructing lessons, selecting content, using various teaching methods, designing assessment, developing classroom climate and in management strategies. Professional skills are developed through reflecting on one's own practice, using educational technology, and developing a professional portfolio.

**TCH ED 5311 Foundations Of Education: 4 semester hours**

Prerequisite: Acceptance into the post-baccalaureate teacher education certification program Investigation into the history, philosophies, and purposes of public schools and the multiple roles played by professional educators. Emphasis will be on the history of public education, the role of the teacher as change agent, the influence of technology, and the impact of diversity of American classrooms.

**TCH ED 5312 Differentiated Instruction: 4 semester hours**

Prerequisites: Graduate Standing. Explores differentiated instruction as an approach to meeting the diverse instructional needs of all students in the classroom. Differentiated instruction can be used to enhance literacy developments of adolescent learners in functional literacy, content literacy, technological literacy and creative/innovative literacy. Twenty hours of field experience are required in addition to scheduled course time.

**TCH ED 5850 Topics In The Teaching Of Writing: 1-3 semester hours**

Same as ENGL 4850. Prerequisite: ENGL 3100 or equivalent.

**TCH ED 6010 Examining History, Community And Social Justice In Education: 3 semester hours**

Addresses the issues of equity and social justice from the context of personal and educational history. Students will develop a cultural understanding of their own previous school, community and family experiences and generalize those findings to their current work as educators. They will develop an understanding of the historical foundations of American education and the role of the teacher to be a catalyst for change. Curriculum, instruction and learning will be examined through a variety of lenses including race, class, gender, ability, sexual orientation and religion to become culturally responsive teachers.

**TCH ED 6020 Teacher Action, Advocacy And Leadership: 3 semester hours**

Investigates the relationships among students, general and special education teachers, counselors, principals, parents, and other support and specialist personnel typically present in schools in Missouri and the changing roles of all these individuals as a consequence of general and special education reform initiatives. Develop systemic action plans and become advocates and leaders within the school and larger community for children, families, and the profession. Assists teachers to analyze and improve their management, planning and record keeping systems and professional development planning.

**TCH ED 6115 Historical Thinking in Theory and Practice I: 3 semester hours**

Same as HIST 6115. Prerequisites: Graduate Standing or consent of instructor. This course explores theoretical and research literature on historical thinking. It further examines effective teaching strategies and curriculum materials that facilitate historical thinking and reading skills while also broadening content knowledge. It will familiarize students with text and web-based resources available for instruction.



**TCH ED 6116 Historical Thinking in Theory and Practice II: 3 semester hours**

Same as HIST 6116. Prerequisites: HIST 6115 / TCH ED 6115 or consent of instructor. Building upon HIST 6115/ TCH ED 6115, this course emphasizes the design, implementation, and assessment of teaching materials and practices that foster historical thinking and reading. In this hands-on, action research course, students will focus on their own teaching materials and practices to improve their capacity to teach and assess students' historical thinking.

**TCH ED 6200 Building Character and Competence with Diverse Learners: 4 semester hours**

Prerequisites: Graduate Standing. This course introduces theories and offers research-based strategies, materials, and resources designed to meet the needs of diverse learners in elementary school settings, including those with special needs and English language learners. Students will also learn ways to promote character and citizenship development, cross-cultural communication, and positive behavior supports.

**TCH ED 6210 Foundations Of Teaching English To Speakers Of Other Languages: 3 semester hours**

Prerequisites: Graduate Standing This course is an introduction to the historical, legal and pedagogical frameworks relating to Teaching English to speakers of Other Languages (TESOL) and bilingualism. Students explore current issues, trends and influential factors in second language acquisition (SLA) instructional and assessment models.

**TCH ED 6220 Principles Of Second/Foreign Language Acquisition: 3 semester hours**

Prerequisite: TCH ED 6210. This course is a research-based study of language acquisition and the factors which influence learning. Students investigate first and second language acquisition processes including socio-cultural and cognitive factors, as well as linguistic research about second language acquisition (SLA). The course analyzes phonology, morphology, syntax, semantics and discourse, within a communicative framework, which directly relates to instructional strategies.

**TCH ED 6230 Cross-Cultural Communication In The Classroom: 3 semester hours**

Prerequisite: TCH ED 6210. Students explore the impact of culture and society on verbal and non-verbal communication, learning styles, and second language acquisition. The course introduces concepts relating to the acculturation process, cross-cultural and intra-cultural communication. Within this theoretical context, students recognize their own socio-cultural identity and its impact on teaching models. Students develop strategies to enhance home, school and community relations.

**TCH ED 6240 Assessment for Teaching English to Speakers of Other Languages: 3 semester hours**

Prerequisites: TCH ED 6210 and TCH ED 6220 are recommended. By exploring the role of assessment in culturally and linguistically diverse classrooms, this course provides an overview of identifying and placing students at the district and school level. Formal and informal models of assessment are examined as students reflect on the administration and interpretation of equitable measurement strategies and how assessment can inform instruction.

**TCH ED 6250 Methods and Materials for Teaching English to Speakers of Other Languages: 3 semester hours**

Prerequisites: TCH ED 6220, TCH ED 6230, and TCH ED 6240, or consent from instructor. Students integrate knowledge of second language acquisition research in instructional methodologies, linguistics, assessment models, and awareness of socio-cultural dynamics, in order to design and critique a unit plan including materials and needed technology support.

**TCH ED 6260 Practicum in Teaching English to Speakers of Other Languages: 3 semester hours**

Prerequisites: TCH ED 6220, TCH ED 6230, TCH ED 6240, and TCH ED 6250 or concurrently taking TCH ED 6250. Students observe and reflect on actual classroom practices, complete a student's needs analysis and placement test, and implement a unit plan in the classroom with reflection. This is a supervised field experience.

**TCH ED 6350 Gender, Language & Identity: 3 semester hours**

Same as GS 6350. Prerequisites: Graduate level standing. An interdisciplinary look at the ways gendered and racial identities are developed and shaped through language and culture. Readings will address the complex, yet sometimes invisible, ways that identity, language and gender intersect, creating and assigning roles, responsibilities, and possible selves to individuals and groups in a global world.

**TCH ED 6440 Experiential Education: 3 semester hours**

Prerequisites: TCH ED 6010 This course addresses facets of experiential learning beginning with the theoretical background. Reflection will be examined as a key component of the experiential learning cycle and reflective questioning techniques developed and practiced. Adventure education, cultural journalism, apprenticeship education and related areas will be investigated as approaches to experiential learning. Students will develop an understanding of the relationship between experience and learning and develop techniques for using that relationship to enhance learning in their own teaching situation.

**TCH ED 6442 Outdoor Education Leadership: 3 semester hours**

Prerequisite: TCH ED 6010 or permission of instructor. Explore concept of a bioregion and development of a sense of place using historic journals, land based essays, outdoor activities, research, discussion and personal reflection. Planning, teambuilding, outdoor leadership skills, regional ecology and culture will be addressed. A 3 day field experience will explore stream, canyon, forest, and cave ecosystems in cooperation with resource professionals. Cultural and economic folkways of the region will be considered.

**TCH ED 6444 Environmental Education: 3 semester hours**

Activity-oriented coursework in developing environmental awareness, field and/or laboratory skills and techniques, and the use of environmental curricula. Materials and activities appropriate for a variety of educational settings, including outdoor locales, will be developed. This course is designed to give educators experience in developing and implementing environmental education curricula, especially in an outdoor setting.

**TCH ED 6880 Gateway Writing Project: 3-6 semester hours**

Same as ENGL 6880. An intensive course in the writing process and the writing curriculum, designed for experienced teachers. Readings of current theory and research will be related to participants' experience as writers and as teachers. Topics may vary. may be repeated for credit. No more than 6 hours may be applied toward the M.Ed. Counts toward the Graduate Certificate in Teaching Writing.

**TCH ED 6890 Seminar In Professional Writing For Teachers: 3 semester hours**

Prerequisites: TCH ED 6880 / ENGL 5880 and near completion of Graduate Certificate in the Teaching of Writing. Capstone seminar for the Graduate Certificate in the Teaching of Writing. Participants will pursue the dual role of writer/ writing teacher by designing individual projects with one of these emphases: (1) research writing based on a classroom inquiry into the teaching of writing; (2) expository and creative writing based on an inquiry into the teacher's own evolution as a writer. Seminar meetings will include both face-to-face and on-line communication.

**TCH ED 6909 Teacher Action Research I: 3 semester hours**

Prerequisites: Graduate Standing Minimal of 21 hours of M.Ed coursework completed. Students learn the knowledge, skills and tools for systematic reflective practice in preparation for completing the Masters Capstone Action Research project in TCH ED 6910.

**TCH ED 6910 Teacher Action Research Capstone: 3 semester hours**

Prerequisites: TCH ED 6909 for teachers and all but the last 6 hours of the M.Ed. program or TCH ED 6909 or ED REM 6040 for non teachers. Students apply research knowledge, skills, and dispositions developed in TCH ED 6909 to an Action Research project, reflecting on and evaluating an aspect of one's own practice within a situated context. Students identify focused questions, collect and analyze data, using both analytic and practice tools, and review literature to research multiple factors in order to improve student learning. The research findings and insights will be shared in a public forum as a capstone for the M.Ed.

**TCH ED 7100 Research in Literacy Studies: 3 semester hours**

Prerequisites: Admission to the doctoral program. Participants will critically examine foundational, theoretical and historical work in the intersection of language, literacy and culture. An analysis of seminal research will explore related traditions and contemporary theories in literacy (K-12).

**TCH ED 7200 Historical and Theoretical Foundations of Curriculum and Instruction: 3 semester hours**

Prerequisites: Admission to the doctoral program. Examines foundational, theoretical and historical work in the field of Curriculum and Instruction. Students will read and analyze key texts, engage in discussions with peers and divisional faculty, build coherent and well-informed arguments, and apply new understandings to problems of practice.

**TCH ED 7210 Issues And Trends in Content and Language Acquisition for English Language Learners: 3 semester hours**

Prerequisites: Doctoral Standing. Analysis of current issues on simultaneous development of academic content and English language learning. Current trends in teaching English to Speakers of Other Languages (TESOL) include Sheltered Instruction Observation Protocol (SIOP), Teaching and Learning Cycle, Teaching Proficiency through Reading and Story Telling (TPRS), and English as an international language. Students will identify an area of inquiry, and design and complete a research project.

## Courses

**TCH ED 2209 Foundations of Teaching in American Schools: 3 semester hours**

Explores the multiple roles and functions of professional teaching including: communication, leadership, management skills, use of technology, identification of needs of diverse populations and an examination of other selected concepts and philosophies underlying American public education. Portfolio preparation will be introduced. A minimum of 15 field experience hours required.

**TCH ED 2210 Introduction To Teaching: 3 semester hours**

Explores the multiple roles and functions of professional teaching including: communication, leadership, management skills, use of technology, and identification of needs of diverse populations. Portfolio preparation will be introduced. A minimum of 15 field experience hours required.

**TCH ED 2211 Introduction To American Schools: 3 semester hours**

One of three introductory, prerequisite courses to the Teacher Education program. An examination of selected concepts and principles underlying American public education. A minimum of 4 field experience hours required.

**TCH ED 2311 Foundations In Urban Education And Social Justice: 3 semester hours**

Prerequisites: Enrollment in the Minor in Urban Education or permission of the instructor. An introductory course that examines the concepts and principles underlying American public education with specific attention to urban school systems. Issues of equity and social justice in public education are analyzed from multiple perspectives.

**TCH ED 3100 Education for Social & Civic Responsibility: 3 semester hours**

Equips students with the knowledge and skills needed to integrate an emphasis on civic and social responsibility, including social justice, into their own teaching. Includes a service learning project and requires reflection on project and in-class experiences, course readings, and personal and professional goals and development.

**TCH ED 3210 General Linguistics in Tchg English to Speakers of Other Languages: 3 semester hours**

Prerequisites: Completion of Level I. An introduction to the historical, legal and pedagogical frameworks relating to Teaching English to Speakers of Other Languages (TESOL), and bilingualism. Students explore principles of language systems including English and the function of language in social and academic settings.

**TCH ED 3211 Basic Principles of Second and Foreign Language Acquisition: 3 semester hours**

Prerequisites: TCH ED 3210. Covers the principles of language acquisition and the factors which influence learning. Students investigate first and second language acquisition processes including socio-cultural and cognitive factors in relation to second language acquisition (SLA). The course analyzes phonology, morphology, syntax, semantics, and discourse, within a communicative framework, which directly relates to instructional strategies.

**TCH ED 3212 Sociolinguistics and communication in the Classroom: 3 semester hours**

Prerequisites: TCH ED 3210. Students explore the impact of culture and society on verbal and non-verbal communication, learning styles, and second language acquisition. The course introduces concepts relating to the acculturation process, cross-cultural and intracultural communication. Students develop strategies to enhance home, school and community relations and impact of culture on perceptions, communication, behaviors, and learning.

**TCH ED 3213 Performance-based Assessment for TOSOL: 3 semester hours**

Prerequisite: TCH ED 3210. By exploring the role of assessment in culturally and linguistically diverse classrooms, this course provides an overview of identifying and placing students at the district and school level. Formal and informal models of assessment are examined as students reflect on the administration and interpretation of equitable measurement strategies and how assessment can reinforce instruction.

**TCH ED 3214 Material Development and Methods for TESOL: 3 semester hours**

Prerequisites: TCH ED 3210, TCH ED 3211, TCH ED 3212, TCH ED 3213, and TCH ED 4391. Students integrate knowledge of second language acquisition research in instructional methodologies in this course. Students will also incorporate theories of linguistics, assessment models, and instructional technology into their material development to meet the needs of diverse English language learners.

**TCH ED 3215 Field Experiences in TESOL: 3 semester hours**

Prerequisites: TCH ED 3210, TCH ED 3212, and TCH ED 3214 or concurrently taking TCH ED 3214. Students observe and reflect on actual classroom practices as well as complete a student's needs analysis and placement tests. The students implement the strategies for advocating and collaborating on behalf of students from diverse language backgrounds. This is a supervised field experience.

**TCH ED 3310 Methods of Teaching With Technology: 2 semester hours**

Prerequisite: TCH ED 2209, ED PSY 2212, or equivalent and admission to Teacher Education Program. Skill development in transforming content into instruction through various teaching methods and educational technologies. Emphasis on differentiating instruction, inquiry learning, and reflecting on practice. Recommended that this course be taken concurrently with ED TECH 3135.

**TCH ED 3313 Psychology of the Exceptional Child: 3 semester hours**

Prerequisites: level I or equivalent. Introductory overview of the field of special education including historical developments, characteristics of special populations, and compliance with state and federal regulations.

**TCH ED 3315 Literacy Learning And Instruction: 3 semester hours**

Prerequisites: Admission to Teacher Education program. May take concurrently with ED PSY 3312 and TCH ED 3313 or equivalents; may not be taken before ED PSY 3312 and TCH ED 3313 or equivalents. Analysis of methods, materials, frameworks, and technology for the effective teaching of literacy to young children, children with special needs, and children in PreK-6 education settings. Emphasis on the role of language experience, phonics, semantics, syntactics, pragmatics, schema theory, and metacognition in literacy development. A total of 20 field experience hours including observation, assessing children's literacy interests and development, and teaching lessons in a school classroom setting are required in addition to scheduled course time. This course may be applied toward a Literacy Minor.

**TCH ED 3316 The Professional Portfolio: 1 semester hour**

Prerequisites: Junior standing or consent of instructor. Students learn the knowledge and skills to develop an electronic teaching portfolio, writing reflective rationales for standards and choosing appropriate artifacts and using technology tools for successful presentation.

**TCH ED 4391 Literacy for Adolescent Learners in Content Areas: 3 semester hours**

Prerequisites: Admission to the Teacher Education Program. Examines the teaching of multiple literacies including reading, writing, speaking and critical thinking in the content areas. Implications of diverse cultures and languages and their relationship to reading will be explored. Field experience hours are required in addition to scheduled course time.

**TCH ED 4988 Teaching and Learning in Urban Schools: 3 semester hours**

Prerequisites: Enrollment in the Minor in Urban Education or permission of the instructor. The capstone course for the Minor in Urban Education. Students design and implement a classroom-based, action research project in an urban school that integrates differentiated instruction, culturally relevant and sensitive teaching strategies, assessing children's learning to meet individual needs, and implementing inquiry-based projects.

**TCH ED 5310 Instructional Design: 3 semester hours**

Prerequisites: Graduate standing, TCH ED 5311, participation in an initial teacher preparation program, & consent of instructor Skill development in planning teaching units, instructing lessons, selecting content, using various teaching methods, designing assessment, developing classroom climate and in management strategies. Professional skills are developed through reflecting on one's own practice, using educational technology, and developing a professional portfolio.

**TCH ED 5311 Foundations Of Education: 4 semester hours**

Prerequisite: Acceptance into the post-baccalaureate teacher education certification program Investigation into the history, philosophies, and purposes of public schools and the multiple roles played by professional educators. Emphasis will be on the history of public education, the role of the teacher as change agent, the influence of technology, and the impact of diversity of American classrooms.

**TCH ED 5312 Differentiated Instruction: 4 semester hours**

Prerequisites: Graduate Standing. Explores differentiated instruction as an approach to meeting the diverse instructional needs of all students in the classroom. Differentiated instruction can be used to enhance literacy developments of adolescent learners in functional literacy, content literacy, technological literacy and creative/innovative literacy. Twenty hours of field experience are required in addition to scheduled course time.

**TCH ED 5850 Topics In The Teaching Of Writing: 1-3 semester hours**

Same as ENGL 4850. Prerequisite: ENGL 3100 or equivalent.

**TCH ED 6010 Examining History, Community And Social Justice In Education: 3 semester hours**

Addresses the issues of equity and social justice from the context of personal and educational history. Students will develop a cultural understanding of their own previous school, community and family experiences and generalize those findings to their current work as educators. They will develop an understanding of the historical foundations of American education and the role of the teacher to be a catalyst for change. Curriculum, instruction and learning will be examined through a variety of lenses including race, class, gender, ability, sexual orientation and religion to become culturally responsive teachers.

**TCH ED 6020 Teacher Action, Advocacy And Leadership: 3 semester hours**

Investigates the relationships among students, general and special education teachers, counselors, principals, parents, and other support and specialist personnel typically present in schools in Missouri and the changing roles of all these individuals as a consequence of general and special education reform initiatives. Develop systemic action plans and become advocates and leaders within the school and larger community for children, families, and the profession. Assists teachers to analyze and improve their management, planning and record keeping systems and professional development planning.

**TCH ED 6115 Historical Thinking in Theory and Practice I: 3 semester hours**

Same as HIST 6115. Prerequisites: Graduate Standing or consent of instructor. This course explores theoretical and research literature on historical thinking. It further examines effective teaching strategies and curriculum materials that facilitate historical thinking and reading skills while also broadening content knowledge. It will familiarize students with text and web-based resources available for instruction.

***TCH ED 6116 Historical Thinking in Theory and Practice II: 3 semester hours***

Same as HIST 6116. Prerequisites: HIST 6115 / TCH ED 6115 or consent of instructor. Building upon HIST 6115/ TCH ED 6115, this course emphasizes the design, implementation, and assessment of teaching materials and practices that foster historical thinking and reading. In this hands-on, action research course, students will focus on their own teaching materials and practices to improve their capacity to teach and assess students' historical thinking.

***TCH ED 6200 Building Character and Competence with Diverse Learners: 4 semester hours***

Prerequisites: Graduate Standing. This course introduces theories and offers research-based strategies, materials, and resources designed to meet the needs of diverse learners in elementary school settings, including those with special needs and English language learners. Students will also learn ways to promote character and citizenship development, cross-cultural communication, and positive behavior supports.

***TCH ED 6210 Foundations Of Teaching English To Speakers Of Other Languages: 3 semester hours***

Prerequisites: Graduate Standing This course is an introduction to the historical, legal and pedagogical frameworks relating to Teaching English to speakers of Other Languages (TESOL) and bilingualism. Students explore current issues, trends and influential factors in second language acquisition (SLA) instructional and assessment models.

***TCH ED 6220 Principles Of Second/Foreign Language Acquisition: 3 semester hours***

Prerequisite: TCH ED 6210. This course is a research-based study of language acquisition and the factors which influence learning. Students investigate first and second language acquisition processes including socio-cultural and cognitive factors, as well as linguistic research about second language acquisition (SLA). The course analyzes phonology, morphology, syntax, semantics and discourse, within a communicative framework, which directly relates to instructional strategies.

***TCH ED 6230 Cross-Cultural Communication In The Classroom: 3 semester hours***

Prerequisite: TCH ED 6210. Students explore the impact of culture and society on verbal and non-verbal communication, learning styles, and second language acquisition. The course introduces concepts relating to the acculturation process, cross-cultural and intra-cultural communication. Within this theoretical context, students recognize their own socio-cultural identity and its impact on teaching models. Students develop strategies to enhance home, school and community relations.

***TCH ED 6240 Assessment for Teaching English to Speakers of Other Languages: 3 semester hours***

Prerequisites: TCH ED 6210 and TCH ED 6220 are recommended. By exploring the role of assessment in culturally and linguistically diverse classrooms, this course provides an overview of identifying and placing students at the district and school level. Formal and informal models of assessment are examined as students reflect on the administration and interpretation of equitable measurement strategies and how assessment can inform instruction.

***TCH ED 6250 Methods and Materials for Teaching English to Speakers of Other Languages: 3 semester hours***

Prerequisites: TCH ED 6220, TCH ED 6230, and TCH ED 6240, or consent from instructor. Students integrate knowledge of second language acquisition research in instructional methodologies, linguistics, assessment models, and awareness of socio-cultural dynamics, in order to design and critique a unit plan including materials and needed technology support.

***TCH ED 6260 Practicum in Teaching English to Speakers of Other Languages: 3 semester hours***

Prerequisites: TCH ED 6220, TCH ED 6230, TCH ED 6240, and TCH ED 6250 or concurrently taking TCH ED 6250. Students observe and reflect on actual classroom practices, complete a student's needs analysis and placement test, and implement a unit plan in the classroom with reflection. This is a supervised field experience.

***TCH ED 6350 Gender, Language & Identity: 3 semester hours***

Same as GS 6350. Prerequisites: Graduate level standing. An interdisciplinary look at the ways gendered and racial identities are developed and shaped through language and culture. Readings will address the complex, yet sometimes invisible, ways that identity, language and gender intersect, creating and assigning roles, responsibilities, and possible selves to individuals and groups in a global world.

***TCH ED 6440 Experiential Education: 3 semester hours***

Prerequisites: TCH ED 6010 This course addresses facets of experiential learning beginning with the theoretical background. Reflection will be examined as a key component of the experiential learning cycle and reflective questioning techniques developed and practiced. Adventure education, cultural journalism, apprenticeship education and related areas will be investigated as approaches to experiential learning. Students will develop an understanding of the relationship between experience and learning and develop techniques for using that relationship to enhance learning in their own teaching situation.

***TCH ED 6442 Outdoor Education Leadership: 3 semester hours***

Prerequisite: TCH ED 6010 or permission of instructor. Explore concept of a bioregion and development of a sense of place using historic journals, land based essays, outdoor activities, research, discussion and personal reflection. Planning, teambuilding, outdoor leadership skills, regional ecology and culture will be addressed. A 3 day field experience will explore stream, canyon, forest, and cave ecosystems in cooperation with resource professionals. Cultural and economic folkways of the region will be considered.

***TCH ED 6444 Environmental Education: 3 semester hours***

Activity-oriented coursework in developing environmental awareness, field and/or laboratory skills and techniques, and the use of environmental curricula. Materials and activities appropriate for a variety of educational settings, including outdoor locales, will be developed. This course is designed to give educators experience in developing and implementing environmental education curricula, especially in an outdoor setting.

***TCH ED 6880 Gateway Writing Project: 3-6 semester hours***

Same as ENGL 6880. An intensive course in the writing process and the writing curriculum, designed for experienced teachers. Readings of current theory and research will be related to participants' experience as writers and as teachers. Topics may vary. may be repeated for credit. No more than 6 hours may be applied toward the M.Ed. Counts toward the Graduate Certificate in Teaching Writing.

***TCH ED 6890 Seminar In Professional Writing For Teachers: 3 semester hours***

Prerequisites: TCH ED 6880 / ENGL 5880 and near completion of Graduate Certificate in the Teaching of Writing. Capstone seminar for the Graduate Certificate in the Teaching of Writing. Participants will pursue the dual role of writer/ writing teacher by designing individual projects with one of these emphases: (1) research writing based on a classroom inquiry into the teaching of writing; (2) expository and creative writing based on an inquiry into the teacher's own evolution as a writer. Seminar meetings will include both face-to-face and on-line communication.



**TCH ED 6909 Teacher Action Research I: 3 semester hours**

Prerequisites: Graduate Standing Minimal of 21 hours of M.Ed coursework completed. Students learn the knowledge, skills and tools for systematic reflective practice in preparation for completing the Masters Capstone Action Research project in TCH ED 6910.

**TCH ED 6910 Teacher Action Research Capstone: 3 semester hours**

Prerequisites: TCH ED 6909 for teachers and all but the last 6 hours of the M.Ed. program or TCH ED 6909 or ED REM 6040 for non teachers. Students apply research knowledge, skills, and dispositions developed in TCH ED 6909 to an Action Research project, reflecting on and evaluating an aspect of one's own practice within a situated context. Students identify focused questions, collect and analyze data, using both analytic and practice tools, and review literature to research multiple factors in order to improve student learning. The research findings and insights will be shared in a public forum as a capstone for the M.Ed.

**TCH ED 7100 Research in Literacy Studies: 3 semester hours**

Prerequisites: Admission to the doctoral program. Participants will critically examine foundational, theoretical and historical work in the intersection of language, literacy and culture. An analysis of seminal research will explore related traditions and contemporary theories in literacy (K-12).

**TCH ED 7200 Historical and Theoretical Foundations of Curriculum and Instruction: 3 semester hours**

Prerequisites: Admission to the doctoral program. Examines foundational, theoretical and historical work in the field of Curriculum and Instruction. Students will read and analyze key texts, engage in discussions with peers and divisional faculty, build coherent and well-informed arguments, and apply new understandings to problems of practice.

**TCH ED 7210 Issues And Trends in Content and Language Acquisition for English Language Learners: 3 semester hours**

Prerequisites: Doctoral Standing. Analysis of current issues on simultaneous development of academic content and English language learning. Current trends in teaching English to Speakers of Other Languages (TESOL) include Sheltered Instruction Observation Protocol (SIOP), Teaching and Learning Cycle, Teaching Proficiency through Reading and Story Telling (TPRS), and English as an international language. Students will identify an area of inquiry, and design and complete a research project.

## Theatre and Dance

### Courses

**TH DAN 1006 Beginning Ballet Technique: 2 semester hours**

Introduction to the art of ballet emphasizing basic movement, technique and terminology. Course of study will include basic barre exercises, center work, and across the floor progressions for proper alignment, strength, flexibility, and coordination. Prior dance experience is not required. Dance attire and ballet slippers will be required. Course may be repeated for up to 10 credit hours.

**TH DAN 1007 Beginning Jazz Dance Technique: 2 semester hours**

Introduction to the art of jazz dance emphasizing basic principles of traditional and contemporary forms of jazz dance movement, technique, terminology, and style. Course will focus on increasing strength, flexibility, coordination, and creative expression. Prior dance experience is not required. Dance attire and jazz shoes will be required. Course may be repeated for up to 10 credit hours.

**TH DAN 1008 Beginning Modern Dance Technique: 2 semester hours**

Introduction to the art of Modern Dance movement, technique, and terminology. Course of study will introduce the elements of time, space, and energy through basic structured exercises and improvisation. Emphasis will be focused on alignment, strength, flexibility, coordination, and creative expression. Prior dance experience is not required. Dance attire is required. Shoes are not required. Course may be repeated for up to 10 credit hours.

**TH DAN 1023 Fundamentals Of Dance: 3 semester hours**

This course provides an introductory exploration of movement through various styles of dance, emphasizing movement vocabulary, stretching, strengthening, body alignment, and creative expression. Prior dance experience is not required. Dance attire and shoes will be required.

**TH DAN 1060 Theatre Workshop: 1-2 semester hours**

Prerequisites: TH DAN 1900 and Consent of Instructor. Course provides practical application of technical theatre practices through 45 hours of lab work within the areas of scenery, lighting, properties, and sound in conjunction with departmental productions. Personal safety equipment and basic tools will be required. Course may be repeated for up to 8 credit hours.

**TH DAN 1210 Fundamentals Of Acting: 3 semester hours**

Course develops personal communication and presentational skills through vocal, physical, and emotional exercises designed for the beginning actor. Course emphasizes relaxation, concentration, improvisation, script analysis, characterization and scene work exercises to develop elementary performance skills.

**TH DAN 1600 Voice Ad Diction/Vocal Performance: 3 semester hours**

Course promotes development of clear, distinct enunciation and correct pronunciation for mass media communication, public address, theatre, and oral interpretation. Course includes development of oral-presentational and self promotional skills for voice acting/voice-over in contemporary theatre and media.

**TH DAN 1800 Introduction To Theatre: 3 semester hours**

A study of Theatre as an art form, emphasizing the audience's appreciation of the art of the playwright, actor, director, designers, and technicians. Major periods, genres, and dramatic forms from classical to modern to the avant garde as well as performance art will be covered. Students will attend performances and learn about how theatre functions as an art and an industry in today's world. Attendance at several live theatrical (theatre, play, musical, opera, and dance) performances, will be required.

**TH DAN 1850 Introduction To Non-Western Theatre: 3 semester hours**

Survey of theatre forms of the non-European world in which primary attention is concentrated on analysis of traditional dance drama and puppet theatres of East Asia, South Asia, the Middle East and Africa. Similar forms of European theatre will be included for comparative purposes. Focus on the development of world theatre from a visual point of view, from earliest storytelling rituals through international stage development to contemporary theatrical forms, with a view to understanding the global perspective. Course will survey visual media and writings on dance and theatre traditions found around the non-Western World. (Satisfies the Cultural Diversity requirement).

**TH DAN 1900 Introduction To Theatre Technology: 3 semester hours**

Introductory course covering the basic theories and techniques of theatre technology including stage equipment and safety, scenery, lighting, costuming, properties, sound and box office. Course includes practical application through a minimum of 25 hours of lab work in conjunction with a departmental production.

**TH DAN 1910 Introduction To Theatrical Design: 3 semester hours**

Prerequisites: TH DAN 1900 or Consent of instructor Introductory course covering the elements and principles of design in the areas of scenery, lighting, and costumes. Course will include various creative projects in two and three dimensions. Some graphic materials will be required.

**TH DAN 2006 Intermediate Ballet Technique: 2 semester hours**

Prerequisites: 2.0 Credit Hours of TH DAN 1006 or Consent of instructor Ballet movement, technique, vocabulary, and aesthetics with particular focus on precision and performance. Course of study will be a continuation of Beginning Ballet Technique barre exercises, center work, and across the floor progressions. Dance attire and Ballet slippers will be required. Course may be repeated for up to 10 credit hours.

**TH DAN 2007 Intermediate Jazz Dance Technique: 2 semester hours**

Prerequisites: 2.0 Credit Hours of TH DAN 1007 or consent of instructor. Jazz dance movement, technique, vocabulary, and aesthetics with particular focus on personal movement style and expression. Course will also study unique dance styles and artists that have influenced the stage video, film and commercial media industry. Dance attire and jazz shoes will be required. Course may be repeated for up to 10 credit hours.

**TH DAN 2008 Intermediate Modern Dance Technique: 2 semester hours**

Prerequisites: 2.0 credit hours of TH DAN 1008 or consent of instructor. Modern dance movement, technique, vocabulary, and aesthetics. Course of study will be a continuation of Beginning Modern Dance Technique through incorporation of more complex movement and patterns. Emphasis on accuracy and performance will be explored. Dance attire is required. Dance shoes are not required. Course may be repeated for up to 10 credit hours.

**TH DAN 2020 Acting for the Camera: 3 semester hours**

An acting course that prepares the actor for work in front of a camera. Working with broadcast quality cameras, students will learn the art of language and expression. Students will learn the art and skill of communicating to an audience. Students also acquire the skills for working with other actors on camera, close-ups, working with props, continuity and hitting your mark.

**TH DAN 2112 Scene Study: 3 semester hours**

This course focuses on actor-training methodologies of Stanislavsky and other text-based approaches. Increases understanding of psychological motivation, concentration, focus of attention and clarity of physical expressiveness. Students prepare and present a minimum of three scenes.

**TH DAN 2195 Practicum In Performance Studies: 1-3 semester hours**

Prerequisite: Consent of instructor Provides practical experience in acting, directing, or dramaturgy through rehearsal and performance in conjunction with department productions, or other approved independent study projects. Laboratory time will be scheduled and may include evening and weekend rehearsals and performances. Course may be repeated for up to 8 credit hours.

**TH DAN 2196 Practicum In Scenery/Lighting/Sound In Theatre Production: 1-3 semester hours**

Prerequisites: TH DAN 1900 and Consent of Instructor. Course provides practical experience in scenery, lighting, sound, and properties implementation and/or running crew work in conjunction with departmental productions or other approved independent study projects. Running crew work will involve evening, weekend and daytime hours according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.

**TH DAN 2197 Practicum In Costume: 1-3 semester hours**

Practicum in costume construction, cutting, draping, millinery, fabric dyeing/painting, distressing, crafts including wardrobe and makeup running crews, in conjunction with the theatre and dance department productions, or other approved independent study projects. In addition to daytime lab hours, occasional weekend and/or evening laboratory time will be required. Appropriate clothing, personal safety and sewing equipment will be required. Course may be repeated for up to 8 credit hours.

**TH DAN 2198 Practicum In Dance: 1-3 semester hours**

Course provides practical experience in dance, stage movement, stage combat, choreography and/or running crew work in conjunction with departmental productions, or other approved independent study projects. Running crew work will involve evening, weekend, and daytime hours according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.

**TH DAN 2210 Ensemble Acting: 3 semester hours**

Prerequisites: TH DAN 1210. A Laboratory acting course providing an "outside-in" starting point for theatrical creation and study, balancing and countering the "inside-out" approach of Stanislavsky-based actor training. Emphasis is paid to ensemble creations, physical characterization, cooperative methods and object performance. May involve practices and theories of Jerzy Grotowski, Augusto Boal, Jacques Lecoq, and/or Tadashi Suzuki.

**TH DAN 2241 Argumentation and Debate: 3 semester hours**

Prerequisite: COMM 1040, or COMM 1041, or consent of instructor. Principles of argumentation and debate with practice in preparing briefs and in delivering spoken arguments in formal debate. Emphasis on analysis of issues, logical reasoning, and audience analysis.

**TH DAN 2244 Introduction to Directing: 3 semester hours**

Prerequisites: TH DAN 2105. An overview of the analytical and creative processes that inform the director's work. Students engage in a close examination of texts, key concepts, and directorial choices in staged performances, opera, films, and video. Students will learn how to articulate responses to theatrical/film work, create and present projects, understand the history and role of the director, and unlock the imagination as an interpretive artist.

**TH DAN 2250 Scenic Fabrication: 3 semester hours**

Prerequisites: TH DAN 1900 or consent of instructor. A survey of the theories, terminology, and practices of professional methods and equipment of scenic and properties fabrication, painting, and rigging. Students will learn current professional techniques in wood, metal, and plastic fabrication including the operation and programming of CNC production machinery. Course includes practical application through 45 hours of lab work in conjunction with department productions. Personal safety equipment will be required.

**TH DAN 2252 Costume Design I: 3 semester hours**

Prerequisites: TH DAN 1910 or Consent of the Instructor. Introduces students to the costume design process including researching costumes, techniques in rendering and painting for costume design, required paperwork for the costume designer, and the understanding of fabrics. Students will use introductory skills to create practical costume design projects.

**TH DAN 2260 Introduction To Theatrical Costume Production: 3 semester hours**

A survey of the theory, practices and vocabulary of theatrical costuming; the visualization and realization of the costume through the arts of pattern cutting; the construction techniques; draping; dyeing, painting, and distressing. Course includes practical application of techniques through required 45 hours of lab work in conjunction with current department productions.

**TH DAN 2270 Audio Recording for Live Production: 3 semester hours**

Prerequisites: TH DAN 1900 or consent of instructor. This course is intended to provide an introduction to audio systems. It will include exposure to waveforms and the physical qualities of sound, as well as audio signal flow in analog and digital systems. The course is also an introduction to acoustics, both indoors and out, microphone theory and proper use, design and placement of speakers, microphones and audio recording equipment.

**TH DAN 2290 2D and 3D CAD for Live Performance: 3 semester hours**

Prerequisites: TH DAN 1900 or consent of instructor. Survey course covering the fundamental techniques of two- and three-dimensional computer aided drafting and rendering.

**TH DAN 2300 Stage Management: 3 semester hours**

Prerequisite: Consent of instructor Course develops fundamental stage management skills needed to supervise all operative aspects of play production from auditions through performance. These skills include: interpersonal and leadership skills, conflict resolution techniques, venue and staff management/scheduling, and technical script analysis. Course includes production experience.

**TH DAN 2810 History Of World Theatre And Drama Through The Restoration: 3 semester hours**

Prerequisites: TH DAN 1800 or Consent of instructor Survey of the history of influence of different cultures, traditions, and technologies on development of theatre as a social institution. History of Theatre and drama from ancient cultures to the Restoration period. Ritual and religious drama. Study of the origins of theatre and drama from oral tradition, myth, storytelling, Shamanism and collective ritual, Greek festival drama, and cloister drama of different cultures. Rise of secular drama, the traditions of classical Greek theatre. Study of the Renaissance, and drama in Europe, Asia, Africa, and the New World.

**TH DAN 2820 History Of World Theatre & Drama From 18Th C To Contemporary Time: 3 semester hours**

Prerequisites: TH DAN 1800 or Consent of instructor History of theatre from 18th century to contemporary times. Survey of history of influence of different cultures, traditions, and technologies on the development of theatre as a social institution. Study of realism and subsequent departures from realism in theatre, drama and performance.

**TH DAN 2840 History Of Dance To The 19Th Century: 3 semester hours**

Prerequisites: TH DAN 1800 or Consent of instructor Survey of western dance from pre-history through the middle ages and renaissance to 19th century. Study of dance in historical and cultural context, its function in society and its relationship to contemporary artistic expression.

**TH DAN 2841 History Of Dance From The 19Th Century To Contemporary Times: 3 semester hours**

Prerequisites: TH DAN 1800 or Consent of instructor Survey of western dance practice from 1850 to the present. History of modern dance: art dance from Isadora Duncan to Martha Graham.

**TH DAN 3006 Advanced Ballet Technique: 2 semester hours**

Prerequisites: TH DAN 1006 and consent of instructor. Advanced ballet movement, technique, vocabulary, and aesthetics with particular focus on precision and performance. Course of study will include advanced barre exercises, center work, and across the floor progressions. Variations, partnering, and pointe work may be incorporated at the discretion of the instructor. Dance attire and ballet slippers will be required. Course may be repeated for up to 6 credit hours.

**TH DAN 3007 Advanced Jazz Dance Technique: 2 semester hours**

Prerequisites: TH DAN 1007 and consent of instructor. Advanced jazz dance movement, technique, vocabulary, and aesthetics with particular focus on personal movement style and performance. Study of unique dance styles and artists that have influenced the stage, video, film and commercial and media industry. Dance attire and jazz shoes will be required. Course may be repeated for up to 6 credit hours.

**TH DAN 3008 Advanced Modern Dance Technique: 2 semester hours**

Prerequisites: TH DAN 1008 and consent of instructor. Advanced level of modern dance movement, technique, vocabulary, and aesthetics. Incorporation of more complex movement and patterns. Emphasis on accuracy and performance will be explored. Dance attire is required. Dance shoes are not required. Course may be repeated for up to 6 credit hours.

**TH DAN 3009 Dance Choreography For The Stage, Television And Film: 3 semester hours**

Prerequisites: 4 Credit Hours of any level and combination of TH DAN 1006, TH DAN 1007, TH DAN 1008, TH DAN 2006, TH DAN 2007, TH DAN 2008, TH DAN 3006, TH DAN 3007 and TH DAN 3008. Course will focus on directed movement studies and composition techniques for the stage, television, and film. Personal creativity and original movement inventions will be explored, as well as the creation, development, and transformation of original movement studies into completed works. Dance attire and dance shoes are required. Course may be repeated for up to 6 credit hours.

**TH DAN 3060 Advanced Theatre Workshop: 1-2 semester hours**

Prerequisites: TH DAN 1060, TH DAN 1900 and Consent of instructor. Practical application of technical theatre practices through 45 hours of lab work within the areas of scenery, lighting, properties, and sound in conjunction with departmental productions. Personal safety equipment and basic tools will be required. Course may be repeated for up to 8 credit hours.

**TH DAN 3195 Advanced Practicum In Performance Studies: 1-3 semester hours**

Prerequisite: Consent of instructor Course provides advanced practical experience in acting, directing, or dramaturgy through rehearsal and performance in conjunction with department productions, or other approved independent study projects. Laboratory time will be scheduled and may include evening and weekend rehearsals and performances. Course may be repeated for up to 8 credit hours.

**TH DAN 3196 Adv Theatre Practicum: Scenery/Lighting/Sound In Theatre Produc: 1-3 semester hours**

Prerequisite: Consent of Instructor Course provides advanced practical experience in scenery, lighting, sound, and properties implementation and/or running crew work in conjunction with departmental productions, or other approved independent study projects. Running crew work may involve evening and weekend assigned times. Additional daytime hours will vary according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.



**TH DAN 3197 Advanced Practicum In Costume: 1-3 semester hours**

This course provides advanced practical experience in costume construction, cutting, draping, millinery, fabric dyeing/ painting, distressing, crafts including wardrobe and makeup running crews, in conjunction with the theatre and dance department productions, or other approved independent study projects. In addition to daytime Lab hours, occasional weekend and/or evening laboratory time may be required. Appropriate clothing and personal safety equipment will be required. Personal equipment will be required. Course may be repeated for up to 8 credit hours.

**TH DAN 3198 Advanced Practicum In Dance: 1-3 semester hours**

Prerequisite: Consent of instructor Course provides practical experience in dance, stage movement, stage combat, choreography and/or running crew work in conjunction with departmental productions, or other approved independent study projects. May involve additional hours including evening and weekend assigned times. Credit will be based on the scope of the project. Course may be repeated for up to 6 credit hours.

**TH DAN 3211 Period Styles of Acting: 3 semester hours**

Prerequisites: TH DAN 1210, TH DAN 2210. The course will expose students to the rigorous analytical, physical, intellectual, and vocal demands of acting within a specific historical period. Students will focus on monologue and scene study from the following: Greek Tragedy, Spanish Golden Age, Elizabethan Theatre, Restoration Comedy, Italian Commedia, French Farce, and British comedy of Manners with a special focus on style distinctions between each.

**TH DAN 3218 Shakespeare and Verse Acting: 3 semester hours**

Prerequisites: TH DAN 1210, TH DAN 2210. An intermediate acting course designed to engage students in Shakespeare's dramatic works from the point of view of the actor. Through text analysis, scene study, vocal work, and acting exercises, students explore the meaning, music and theatrical power of Shakespeare and other playwrights. Topics explored include: blank verse acting, line breath support, scansion, phrasing, word emphasis, antithesis, and imagery.

**TH DAN 3250 Costume Crafts: 3 semester hours**

Prerequisites: TH DAN 2260 or Consent of the Instructor. Develop the skills and techniques needed to execute crafts used in costume design including millinery, mask making, fabric painting and dyeing, wig manipulation, armor, and other craft work. Course may be repeated for up to 6 credit hours.

**TH DAN 3252 Costume Design II: 3 semester hours**

Prerequisites: TH DAN 2250 and TH DAN 2260, or consent of instructor. Content of course includes study of theories, styles, visualization of ideas, and techniques of costume design; discussion of principles of design, script analysis, the collaborative roles of designers in the theatrical production; research, and exploration of character representation; study of the human figure, drawing, and rendering techniques.

**TH DAN 3257 Makeup For Theatrical Productions: 3 semester hours**

Prerequisites: TH DAN 1800, TH DAN 1910, or consent of instructor. The art of makeup and its relation to production. Overview of European history and tradition of makeup. Theory, history and the practice of makeup traditions for theatre, dance and performance will be included.

**TH DAN 3260 Digital Scenography: 3 semester hours**

Prerequisites: TH DAN 1900, TH DAN 1910, TH DAN 2250, TH DAN 2290, or consent of instructor. Survey of the professional theories and practices of scenography for live performances. This course emphasizes the creative process including digital sketches, CAD, three-dimensional modeling, digital rendering, and collaboration.

**TH DAN 3261 Digital Lighting Design: 3 semester hours**

Prerequisites: TH DAN 1900, TH DAN 1910, TH DAN 2280, or consent of instructor. Survey of theories and techniques of digital lighting design and 3D visualization for live performance. This course will emphasize current and emerging digital design practices used by professional lighting designers including 3D visualization, CAD, software-based paperwork creation and management, and collaboration in the digital age.

**TH DAN 3263 Techniques in Scenic Finishes: 3 semester hours**

Prerequisites: TH DAN 1900, TH DAN 1910, or consent of instructor. Survey of theories, materials, and professional techniques used in finishing fabricated scenery. This course will focus on traditional scenic painting, faux finishing techniques, digital graphics production and application, and design and production of digitally printed and cut drops. Course includes practical application through 45 hours of lab work in conjunction with departmental productions and class projects.

**TH DAN 3305 Writing For Performance: 3 semester hours**

Prerequisite: Consent of instructor Introduction to writing for performance, including playwriting and dramatic adaptation. Students' particular interests will determine course content: ranging from sketch comedy or adaptation of literature for the stage, to full-length comic or dramatic plays. This course is writing intensive and may require additional laboratory hours.

**TH DAN 3399 Stage Combat: 3 semester hours**

Prerequisites: Junior or Senior standing, or consent of instructor. This is a movement course designed to expand the acting student's awareness of the body as a vehicle for the communication of emotion, action, and drama on the stage. It will introduce the skills and techniques necessary for the creation of safe and effective illusions of violence for the stage.

**TH DAN 4020 Directing for the Camera: 3 semester hours**

Prerequisites: TH DAN 2020. This directing course prepares the student director to work with both the actors and the cinematographer to achieve the directorial concept. The director will work with actors and a cinematographer to produce a short-length film/video from a prepared script. The creation of shooting scripts, story boards, and a shooting schedule are covered in the course.

**TH DAN 4040 Special Topics in Theatre: 1-6 semester hours**

Prerequisites: Junior, Senior, or consent of instructor. Special topics with subject matter dealing with current issues (theoretical or applied) in the discipline of Theatre. Course may be repeated for up to 12 credit hours, provided the topic is different.

**TH DAN 4041 Special Topics in Dance: 1-6 semester hours**

Prerequisites: Junior, Senior, or consent of instructor. Special topics with subject matter dealing with current issues (theoretical or applied) in the discipline of Dance. Course may be repeated for up to 12 credit hours, provided the topic is different.

**TH DAN 4220 Directing For The Theatre: 3 semester hours**

Prerequisites: TH DAN 1210 or consent of instructor. A survey of the theories and practices of theatrical directing, beginning with the theories and techniques of accomplished directors. The stage director's role in performance development will be studied through script analysis, production planning, and the rehearsal process, culminating with a live performance. Final projects are laboratory scenes or a short one-act play.



**TH DAN 4261 Advanced Projects In Design And Technology: 1-3 semester hours**

Prerequisites: TH DAN 1910 and consent of instructor. Provides opportunities for supervised advanced projects in theatre design or technology in conjunction with departmental productions, or other independent study projects. Credit assigned based on scope of project. Course may be repeated for up to 6 credit hours.

**TH DAN 4390 Theatre Internship: 1-3 semester hours**

Prerequisites: Junior level with consent of instructor Provides opportunities for supervised projects in conjunction with off-campus professional theatre and/or dance companies in performance, management, design or technology. Credit based on scope of assignment. Course may be repeated for up to 6 credit hours.

**TH DAN 4391 Dance Internship: 1-3 semester hours**

Prerequisites: Junior level with Consent of instructor Provides credit for approved supervised projects in conjunction with off-campus professional theatre and/or dance companies. Credit based on scope of assignment. Course may be repeated for up to 6 credit hours.

**TH DAN 4886 The Curriculum and Methods of Teaching Speech and Theatre: 3 semester hours**

Same as SEC ED 4886. Prerequisites: TCH ED 3310 or TCH ED 5310; students must be within three hours of completing a major in either Communication or Theatre, with 15-18 hours completed in the other subject area. A study in the scope and sequence of the Speech and Theatre courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. The course prepares students for reflective teaching by relating course readings to field experience and theory to practice. To be taken prior to student teaching and concurrently with SEC ED 4989: Secondary Professional Internship. This course must be completed in residence. Not available for graduate credit.

**TH DAN 4900 Senior Project: 3 semester hours**

The capstone experience requires seniors to produce an original research project, a representative portfolio, or an intrinsic case study, which exemplifies their undergraduate study. Students will present their work to the instructor supervising the course, as well as program related-faculty.

## Courses

**TH DAN 1006 Beginning Ballet Technique: 2 semester hours**

Introduction to the art of ballet emphasizing basic movement, technique and terminology. Course of study will include basic barre exercises, center work, and across the floor progressions for proper alignment, strength, flexibility, and coordination. Prior dance experience is not required. Dance attire and ballet slippers will be required. Course may be repeated for up to 10 credit hours.

**TH DAN 1007 Beginning Jazz Dance Technique: 2 semester hours**

Introduction to the art of jazz dance emphasizing basic principles of traditional and contemporary forms of jazz dance movement, technique, terminology, and style. Course will focus on increasing strength, flexibility, coordination, and creative expression. Prior dance experience is not required. Dance attire and jazz shoes will be required. Course may be repeated for up to 10 credit hours.

**TH DAN 1008 Beginning Modern Dance Technique: 2 semester hours**

Introduction to the art of Modern Dance movement, technique, and terminology. Course of study will introduce the elements of time, space, and energy through basic structured exercises and improvisation. Emphasis will be focused on alignment, strength, flexibility, coordination, and creative expression. Prior dance experience is not required. Dance attire is required. Shoes are not required. Course may be repeated for up to 10 credit hours.

**TH DAN 1023 Fundamentals Of Dance: 3 semester hours**

This course provides an introductory exploration of movement through various styles of dance, emphasizing movement vocabulary, stretching, strengthening, body alignment, and creative expression. Prior dance experience is not required. Dance attire and shoes will be required.

**TH DAN 1060 Theatre Workshop: 1-2 semester hours**

Prerequisites: TH DAN 1900 and Consent of Instructor. Course provides practical application of technical theatre practices through 45 hours of lab work within the areas of scenery, lighting, properties, and sound in conjunction with departmental productions. Personal safety equipment and basic tools will be required. Course may be repeated for up to 8 credit hours.

**TH DAN 1210 Fundamentals Of Acting: 3 semester hours**

Course develops personal communication and presentational skills through vocal, physical, and emotional exercises designed for the beginning actor. Course emphasizes relaxation, concentration, improvisation, script analysis, characterization and scene work exercises to develop elementary performance skills.

**TH DAN 1600 Voice Ad Diction/Vocal Performance: 3 semester hours**

Course promotes development of clear, distinct enunciation and correct pronunciation for mass media communication, public address, theatre, and oral interpretation. Course includes development of oral-presentational and self promotional skills for voice acting/voice-over in contemporary theatre and media.

**TH DAN 1800 Introduction To Theatre: 3 semester hours**

A study of Theatre as an art form, emphasizing the audience's appreciation of the art of the playwright, actor, director, designers, and technicians. Major periods, genres, and dramatic forms from classical to modern to the avant garde as well as performance art will be covered. Students will attend performances and learn about how theatre functions as an art and an industry in today's world. Attendance at several live theatrical (theatre, play, musical, opera, and dance) performances, will be required.

**TH DAN 1850 Introduction To Non-Western Theatre: 3 semester hours**

Survey of theatre forms of the non-European world in which primary attention is concentrated on analysis of traditional dance drama and puppet theatres of East Asia, South Asia, the Middle East and Africa. Similar forms of European theatre will be included for comparative purposes. Focus on the development of world theatre from a visual point of view, from earliest storytelling rituals through international stage development to contemporary theatrical forms, with a view to understanding the global perspective. Course will survey visual media and writings on dance and theatre traditions found around the non-Western World. (Satisfies the Cultural Diversity requirement).

**TH DAN 1900 Introduction To Theatre Technology: 3 semester hours**

Introductory course covering the basic theories and techniques of theatre technology including stage equipment and safety, scenery, lighting, costuming, properties, sound and box office. Course includes practical application through a minimum of 25 hours of lab work in conjunction with a departmental production.

**TH DAN 1910 Introduction To Theatrical Design: 3 semester hours**

Prerequisites: TH DAN 1900 or Consent of instructor Introductory course covering the elements and principles of design in the areas of scenery, lighting, and costumes. Course will include various creative projects in two and three dimensions. Some graphic materials will be required.

**TH DAN 2006 Intermediate Ballet Technique: 2 semester hours**

Prerequisites: 2.0 Credit Hours of TH DAN 1006 or Consent of instructor Ballet movement, technique, vocabulary, and aesthetics with particular focus on precision and performance. Course of study will be a continuation of Beginning Ballet Technique barre exercises, center work, and across the floor progressions. Dance attire and Ballet slippers will be required. Course may be repeated for up to 10 credit hours.

**TH DAN 2007 Intermediate Jazz Dance Technique: 2 semester hours**

Prerequisites: 2.0 Credit Hours of TH DAN 1007 or consent of instructor. Jazz dance movement, technique, vocabulary, and aesthetics with particular focus on personal movement style and expression. Course will also study unique dance styles and artists that have influenced the stage video, film and commercial media industry. Dance attire and jazz shoes will be required. Course may be repeated for up to 10 credit hours.

**TH DAN 2008 Intermediate Modern Dance Technique: 2 semester hours**

Prerequisites: 2.0 credit hours of TH DAN 1008 or consent of instructor. Modern dance movement, technique, vocabulary, and aesthetics. Course of study will be a continuation of Beginning Modern Dance Technique through incorporation of more complex movement and patterns. Emphasis on accuracy and performance will be explored. Dance attire is required. Dance shoes are not required. Course may be repeated for up to 10 credit hours.

**TH DAN 2020 Acting for the Camera: 3 semester hours**

An acting course that prepares the actor for work in front of a camera. Working with broadcast quality cameras, students will learn the art of language and expression. Students will learn the art and skill of communicating to an audience. Students also acquire the skills for working with other actors on camera, close-ups, working with props, continuity and hitting your mark.

**TH DAN 2112 Scene Study: 3 semester hours**

This course focuses on actor-training methodologies of Stanislavsky and other text-based approaches. Increases understanding of psychological motivation, concentration, focus of attention and clarity of physical expressiveness. Students prepare and present a minimum of three scenes.

**TH DAN 2195 Practicum In Performance Studies: 1-3 semester hours**

Prerequisite: Consent of instructor Provides practical experience in acting, directing, or dramaturgy through rehearsal and performance in conjunction with department productions, or other approved independent study projects. Laboratory time will be scheduled and may include evening and weekend rehearsals and performances. Course may be repeated for up to 8 credit hours.

**TH DAN 2196 Practicum In Scenery/Lighting/Sound In Theatre Production: 1-3 semester hours**

Prerequisites: TH DAN 1900 and Consent of Instructor. Course provides practical experience in scenery, lighting, sound, and properties implementation and/or running crew work in conjunction with departmental productions or other approved independent study projects. Running crew work will involve evening, weekend and daytime hours according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.

**TH DAN 2197 Practicum In Costume: 1-3 semester hours**

Practicum in costume construction, cutting, draping, millinery, fabric dyeing/painting, distressing, crafts including wardrobe and makeup running crews, in conjunction with the theatre and dance department productions, or other approved independent study projects. In addition to daytime lab hours, occasional weekend and/or evening laboratory time will be required. Appropriate clothing, personal safety and sewing equipment will be required. Course may be repeated for up to 8 credit hours.

**TH DAN 2198 Practicum In Dance: 1-3 semester hours**

Course provides practical experience in dance, stage movement, stage combat, choreography and/or running crew work in conjunction with departmental productions, or other approved independent study projects. Running crew work will involve evening, weekend, and daytime hours according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.

**TH DAN 2210 Ensemble Acting: 3 semester hours**

Prerequisites: TH DAN 1210. A Laboratory acting course providing an "outside-in" starting point for theatrical creation and study, balancing and countering the "inside-out" approach of Stanislavsky-based actor training. Emphasis is paid to ensemble creations, physical characterization, cooperative methods and object performance. May involve practices and theories of Jerzy Grotowski, Augusto Boal, Jacques Lecoq, and/or Tadashi Suzuki.

**TH DAN 2241 Argumentation and Debate: 3 semester hours**

Prerequisite: COMM 1040, or COMM 1041, or consent of instructor. Principles of argumentation and debate with practice in preparing briefs and in delivering spoken arguments in formal debate. Emphasis on analysis of issues, logical reasoning, and audience analysis.

**TH DAN 2244 Introduction to Directing: 3 semester hours**

Prerequisites: TH DAN 2105. An overview of the analytical and creative processes that inform the director's work. Students engage in a close examination of texts, key concepts, and directorial choices in staged performances, opera, films, and video. Students will learn how to articulate responses to theatrical/film work, create and present projects, understand the history and role of the director, and unlock the imagination as an interpretive artist.

**TH DAN 2250 Scenic Fabrication: 3 semester hours**

Prerequisites: TH DAN 1900 or consent of instructor. A survey of the theories, terminology, and practices of professional methods and equipment of scenic and properties fabrication, painting, and rigging. Students will learn current professional techniques in wood, metal, and plastic fabrication including the operation and programming of CNC production machinery. Course includes practical application through 45 hours of lab work in conjunction with department productions. Personal safety equipment will be required.

**TH DAN 2252 Costume Design I: 3 semester hours**

Prerequisites: TH DAN 1910 or Consent of the Instructor. Introduces students to the costume design process including researching costumes, techniques in rendering and painting for costume design, required paperwork for the costume designer, and the understanding of fabrics. Students will use introductory skills to create practical costume design projects.

**TH DAN 2260 Introduction To Theatrical Costume Production: 3 semester hours**

A survey of the theory, practices and vocabulary of theatrical costuming; the visualization and realization of the costume through the arts of pattern cutting; the construction techniques; draping; dyeing, painting, and distressing. Course includes practical application of techniques through required 45 hours of lab work in conjunction with current department productions.

**TH DAN 2270 Audio Recording for Live Production: 3 semester hours**

Prerequisites: TH DAN 1900 or consent of instructor. This course is intended to provide an introduction to audio systems. It will include exposure to waveforms and the physical qualities of sound, as well as audio signal flow in analog and digital systems. The course is also an introduction to acoustics, both indoors and out, microphone theory and proper use, design and placement of speakers, microphones and audio recording equipment.

**TH DAN 2290 2D and 3D CAD for Live Performance: 3 semester hours**

Prerequisites: TH DAN 1900 or consent of instructor. Survey course covering the fundamental techniques of two- and three-dimensional computer aided drafting and rendering.

**TH DAN 2300 Stage Management: 3 semester hours**

Prerequisite: Consent of instructor Course develops fundamental stage management skills needed to supervise all operative aspects of play production from auditions through performance. These skills include: interpersonal and leadership skills, conflict resolution techniques, venue and staff management/scheduling, and technical script analysis. Course includes production experience.

**TH DAN 2810 History Of World Theatre And Drama Through The Restoration: 3 semester hours**

Prerequisites: TH DAN 1800 or Consent of instructor Survey of the history of influence of different cultures, traditions, and technologies on development of theatre as a social institution. History of Theatre and drama from ancient cultures to the Restoration period. Ritual and religious drama. Study of the origins of theatre and drama from oral tradition, myth, storytelling, Shamanism and collective ritual, Greek festival drama, and cloister drama of different cultures. Rise of secular drama, the traditions of classical Greek theatre. Study of the Renaissance, and drama in Europe, Asia, Africa, and the New World.

**TH DAN 2820 History Of World Theatre & Drama From 18Th C To Contemporary Time: 3 semester hours**

Prerequisites: TH DAN 1800 or Consent of instructor History of theatre from 18th century to contemporary times. Survey of history of influence of different cultures, traditions, and technologies on the development of theatre as a social institution. Study of realism and subsequent departures from realism in theatre, drama and performance.

**TH DAN 2840 History Of Dance To The 19Th Century: 3 semester hours**

Prerequisites: TH DAN 1800 or Consent of instructor Survey of western dance from pre-history through the middle ages and renaissance to 19th century. Study of dance in historical and cultural context, its function in society and its relationship to contemporary artistic expression.

**TH DAN 2841 History Of Dance From The 19Th Century To Contemporary Times: 3 semester hours**

Prerequisites: TH DAN 1800 or Consent of instructor Survey of western dance practice from 1850 to the present. History of modern dance: art dance from Isadora Duncan to Martha Graham.

**TH DAN 3006 Advanced Ballet Technique: 2 semester hours**

Prerequisites: TH DAN 1006 and consent of instructor. Advanced ballet movement, technique, vocabulary, and aesthetics with particular focus on precision and performance. Course of study will include advanced barre exercises, center work, and across the floor progressions. Variations, partnering, and pointe work may be incorporated at the discretion of the instructor. Dance attire and ballet slippers will be required. Course may be repeated for up to 6 credit hours.

**TH DAN 3007 Advanced Jazz Dance Technique: 2 semester hours**

Prerequisites: TH DAN 1007 and consent of instructor. Advanced jazz dance movement, technique, vocabulary, and aesthetics with particular focus on personal movement style and performance. Study of unique dance styles and artists that have influenced the stage, video, film and commercial and media industry. Dance attire and jazz shoes will be required. Course may be repeated for up to 6 credit hours.

**TH DAN 3008 Advanced Modern Dance Technique: 2 semester hours**

Prerequisites: TH DAN 1008 and consent of instructor. Advanced level of modern dance movement, technique, vocabulary, and aesthetics. Incorporation of more complex movement and patterns. Emphasis on accuracy and performance will be explored. Dance attire is required. Dance shoes are not required. Course may be repeated for up to 6 credit hours.

**TH DAN 3009 Dance Choreography For The Stage, Television And Film: 3 semester hours**

Prerequisites: 4 Credit Hours of any level and combination of TH DAN 1006, TH DAN 1007, TH DAN 1008, TH DAN 2006, TH DAN 2007, TH DAN 2008, TH DAN 3006, TH DAN 3007 and TH DAN 3008. Course will focus on directed movement studies and composition techniques for the stage, television, and film. Personal creativity and original movement inventions will be explored, as well as the creation, development, and transformation of original movement studies into completed works. Dance attire and dance shoes are required. Course may be repeated for up to 6 credit hours.

**TH DAN 3060 Advanced Theatre Workshop: 1-2 semester hours**

Prerequisites: TH DAN 1060, TH DAN 1900 and Consent of instructor. Practical application of technical theatre practices through 45 hours of lab work within the areas of scenery, lighting, properties, and sound in conjunction with departmental productions. Personal safety equipment and basic tools will be required. Course may be repeated for up to 8 credit hours.

**TH DAN 3195 Advanced Practicum In Performance Studies: 1-3 semester hours**

Prerequisite: Consent of instructor Course provides advanced practical experience in acting, directing, or dramaturgy through rehearsal and performance in conjunction with department productions, or other approved independent study projects. Laboratory time will be scheduled and may include evening and weekend rehearsals and performances. Course may be repeated for up to 8 credit hours.

**TH DAN 3196 Adv Theatre Practicum: Scenery/Lighting/Sound In Theatre Produc: 1-3 semester hours**

Prerequisite: Consent of Instructor Course provides advanced practical experience in scenery, lighting, sound, and properties implementation and/or running crew work in conjunction with departmental productions, or other approved independent study projects. Running crew work may involve evening and weekend assigned times. Additional daytime hours will vary according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.



**TH DAN 3197 Advanced Practicum In Costume: 1-3 semester hours**

This course provides advanced practical experience in costume construction, cutting, draping, millinery, fabric dyeing/ painting, distressing, crafts including wardrobe and makeup running crews, in conjunction with the theatre and dance department productions, or other approved independent study projects. In addition to daytime Lab hours, occasional weekend and/or evening laboratory time may be required. Appropriate clothing and personal safety equipment will be required. Personal equipment will be required. Course may be repeated for up to 8 credit hours.

**TH DAN 3198 Advanced Practicum In Dance: 1-3 semester hours**

Prerequisite: Consent of instructor Course provides practical experience in dance, stage movement, stage combat, choreography and/or running crew work in conjunction with departmental productions, or other approved independent study projects. May involve additional hours including evening and weekend assigned times. Credit will be based on the scope of the project. Course may be repeated for up to 6 credit hours.

**TH DAN 3211 Period Styles of Acting: 3 semester hours**

Prerequisites: TH DAN 1210, TH DAN 2210. The course will expose students to the rigorous analytical, physical, intellectual, and vocal demands of acting within a specific historical period. Students will focus on monologue and scene study from the following: Greek Tragedy, Spanish Golden Age, Elizabethan Theatre, Restoration Comedy, Italian Commedia, French Farce, and British comedy of Manners with a special focus on style distinctions between each.

**TH DAN 3218 Shakespeare and Verse Acting: 3 semester hours**

Prerequisites: TH DAN 1210, TH DAN 2210. An intermediate acting course designed to engage students in Shakespeare's dramatic works from the point of view of the actor. Through text analysis, scene study, vocal work, and acting exercises, students explore the meaning, music and theatrical power of Shakespeare and other playwrights. Topics explored include: blank verse acting, line breath support, scansion, phrasing, word emphasis, antithesis, and imagery.

**TH DAN 3250 Costume Crafts: 3 semester hours**

Prerequisites: TH DAN 2260 or Consent of the Instructor. Develop the skills and techniques needed to execute crafts used in costume design including millinery, mask making, fabric painting and dyeing, wig manipulation, armor, and other craft work. Course may be repeated for up to 6 credit hours.

**TH DAN 3252 Costume Design II: 3 semester hours**

Prerequisites: TH DAN 2250 and TH DAN 2260, or consent of instructor. Content of course includes study of theories, styles, visualization of ideas, and techniques of costume design; discussion of principles of design, script analysis, the collaborative roles of designers in the theatrical production; research, and exploration of character representation; study of the human figure, drawing, and rendering techniques.

**TH DAN 3257 Makeup For Theatrical Productions: 3 semester hours**

Prerequisites: TH DAN 1800, TH DAN 1910, or consent of instructor. The art of makeup and its relation to production. Overview of European history and tradition of makeup. Theory, history and the practice of makeup traditions for theatre, dance and performance will be included.

**TH DAN 3260 Digital Scenography: 3 semester hours**

Prerequisites: TH DAN 1900, TH DAN 1910, TH DAN 2250, TH DAN 2290, or consent of instructor. Survey of the professional theories and practices of scenography for live performances. This course emphasizes the creative process including digital sketches, CAD, three-dimensional modeling, digital rendering, and collaboration.

**TH DAN 3261 Digital Lighting Design: 3 semester hours**

Prerequisites: TH DAN 1900, TH DAN 1910, TH DAN 2280, or consent of instructor. Survey of theories and techniques of digital lighting design and 3D visualization for live performance. This course will emphasize current and emerging digital design practices used by professional lighting designers including 3D visualization, CAD, software-based paperwork creation and management, and collaboration in the digital age.

**TH DAN 3263 Techniques in Scenic Finishes: 3 semester hours**

Prerequisites: TH DAN 1900, TH DAN 1910, or consent of instructor. Survey of theories, materials, and professional techniques used in finishing fabricated scenery. This course will focus on traditional scenic painting, faux finishing techniques, digital graphics production and application, and design and production of digitally printed and cut drops. Course includes practical application through 45 hours of lab work in conjunction with departmental productions and class projects.

**TH DAN 3305 Writing For Performance: 3 semester hours**

Prerequisite: Consent of instructor Introduction to writing for performance, including playwriting and dramatic adaptation. Students' particular interests will determine course content: ranging from sketch comedy or adaptation of literature for the stage, to full-length comic or dramatic plays. This course is writing intensive and may require additional laboratory hours.

**TH DAN 3399 Stage Combat: 3 semester hours**

Prerequisites: Junior or Senior standing, or consent of instructor. This is a movement course designed to expand the acting student's awareness of the body as a vehicle for the communication of emotion, action, and drama on the stage. It will introduce the skills and techniques necessary for the creation of safe and effective illusions of violence for the stage.

**TH DAN 4020 Directing for the Camera: 3 semester hours**

Prerequisites: TH DAN 2020. This directing course prepares the student director to work with both the actors and the cinematographer to achieve the directorial concept. The director will work with actors and a cinematographer to produce a short-length film/video from a prepared script. The creation of shooting scripts, story boards, and a shooting schedule are covered in the course.

**TH DAN 4040 Special Topics in Theatre: 1-6 semester hours**

Prerequisites: Junior, Senior, or consent of instructor. Special topics with subject matter dealing with current issues (theoretical or applied) in the discipline of Theatre. Course may be repeated for up to 12 credit hours, provided the topic is different.

**TH DAN 4041 Special Topics in Dance: 1-6 semester hours**

Prerequisites: Junior, Senior, or consent of instructor. Special topics with subject matter dealing with current issues (theoretical or applied) in the discipline of Dance. Course may be repeated for up to 12 credit hours, provided the topic is different.

**TH DAN 4220 Directing For The Theatre: 3 semester hours**

Prerequisites: TH DAN 1210 or consent of instructor. A survey of the theories and practices of theatrical directing, beginning with the theories and techniques of accomplished directors. The stage director's role in performance development will be studied through script analysis, production planning, and the rehearsal process, culminating with a live performance. Final projects are laboratory scenes or a short one-act play.



**TH DAN 4261 Advanced Projects In Design And Technology: 1-3 semester hours**

Prerequisites: TH DAN 1910 and consent of instructor. Provides opportunities for supervised advanced projects in theatre design or technology in conjunction with departmental productions, or other independent study projects. Credit assigned based on scope of project. Course may be repeated for up to 6 credit hours.

**TH DAN 4390 Theatre Internship: 1-3 semester hours**

Prerequisites: Junior level with consent of instructor Provides opportunities for supervised projects in conjunction with off-campus professional theatre and/or dance companies in performance, management, design or technology. Credit based on scope of assignment. Course may be repeated for up to 6 credit hours.

**TH DAN 4391 Dance Internship: 1-3 semester hours**

Prerequisites: Junior level with Consent of instructor Provides credit for approved supervised projects in conjunction with off-campus professional theatre and/or dance companies. Credit based on scope of assignment. Course may be repeated for up to 6 credit hours.

**TH DAN 4886 The Curriculum and Methods of Teaching Speech and Theatre: 3 semester hours**

Same as SEC ED 4886. Prerequisites: TCH ED 3310 or TCH ED 5310; students must be within three hours of completing a major in either Communication or Theatre, with 15-18 hours completed in the other subject area. A study in the scope and sequence of the Speech and Theatre courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. The course prepares students for reflective teaching by relating course readings to field experience and theory to practice. To be taken prior to student teaching and concurrently with SEC ED 4989: Secondary Professional Internship. This course must be completed in residence. Not available for graduate credit.

**TH DAN 4900 Senior Project: 3 semester hours**

The capstone experience requires seniors to produce an original research project, a representative portfolio, or an intrinsic case study, which exemplifies their undergraduate study. Students will present their work to the instructor supervising the course, as well as program related-faculty.

## Theatre

### Courses

**THEATR 3230 Aesthetics Of Theatrical Styles: 3 semester hours**

Prerequisite: THEATR 1230. analysis of the development of dramatic and artistic styles as they affect the visual presentation of ideas in theatre.

**THEATR 3240 Movement For Musical Theatre: 3 semester hours**

Prerequisite: THEATR 2240 or consent of instructor. Specialized training in movement and dance techniques for musical theatre.

**THEATR 3610 Readers Theatre: 3 semester hours**

Prerequisite: COMM 1160. Study of the oral interpretation of literature as a theatrical experience. Study of theory, techniques, and performance.

**THEATR 3810 Theatre From The Ancient Greeks To The Restoration: 3 semester hours**

Prerequisite: THEATR 1800 or consent of instructor. History of theatre and drama from Classical Greek to the Restoration period.

### Courses

**THEATR 3230 Aesthetics Of Theatrical Styles: 3 semester hours**

Prerequisite: THEATR 1230. analysis of the development of dramatic and artistic styles as they affect the visual presentation of ideas in theatre.

**THEATR 3240 Movement For Musical Theatre: 3 semester hours**

Prerequisite: THEATR 2240 or consent of instructor. Specialized training in movement and dance techniques for musical theatre.

**THEATR 3610 Readers Theatre: 3 semester hours**

Prerequisite: COMM 1160. Study of the oral interpretation of literature as a theatrical experience. Study of theory, techniques, and performance.

**THEATR 3810 Theatre From The Ancient Greeks To The Restoration: 3 semester hours**

Prerequisite: THEATR 1800 or consent of instructor. History of theatre and drama from Classical Greek to the Restoration period.

## Theory and Composition

### Courses

**THRY COM 1190 Fundamentals Of Music: 3 semester hours**

This course provides basic music vocabulary: scales, intervals, and chords, and systematic instruction in the melodic, rhythmic, and harmonic aspects of music. This course will not apply toward requirements for a music major.

**THRY COM 1300 Introduction to Music Theory: 1 semester hour**

This course introduces the basic vocabulary of music notation and theory and rudimentary skills of ear training and sight singing. This course must be taken concurrently with THRY COM 1301, but may be waived on the basis of a successful score on the Theory Placement Exam.

**THRY COM 1301 Theory Of Music I: 3 semester hours**

Prerequisite: Consent of department. This course introduces the basic materials of music as well as species counterpoint and diatonic harmony. Concurrent registration in THRY COM 1300 is required unless waived on the basis of a successful score on the Theory Placement Exam. Concurrent registration in THRY COM 1302 is required for music majors and minors.

**THRY COM 1302 Aural Training I: 1 semester hour**

Prerequisite: Consent Of Department. Systematic instruction in ear training and sight singing of all material covered in THRY COM 1301. Includes diatonic melodic and rhythmic dictation, chord quality recognition, sight singing of diatonic melodies, and the reading of units and divisions of units in simple and compound meters. Concurrent registration in THRY COM 1301 is required for music majors and minors.

**THRY COM 1311 Theory Of Music II: 3 semester hours**

PREREQUISITE: THRY COM 1300, THRY COM 1301, and THRY COM 1302 or consent of department. This course continues the study of diatonic harmony begun in THRY COM 1301. Harmonic function, phrase structure, harmonic sequences, secondary dominants, and simple modulation. Concurrent registration in THRY COM 1312 is required for music majors and minors.

**THRY COM 1312 Aural Training II: 1 semester hour**

Prerequisite: THRY COM 1301 and THRY COM 1302 or consent of department. The systematic instruction in ear training and sight singing begun in THRY COM 1302 is continued. This course provides instruction in the performance and aural recognition of all musical devices introduced in THRY COM 1311. Concurrent registration in THRY COM 1311 is required for music majors and minors.

**THRY COM 2301 Theory Of Music III: 3 semester hours**

Prerequisite: THRY COM 1311 and THRY COM 1312 or consent of department. This course begins the study of chromatic harmony and form in music of the eighteenth and nineteenth centuries. Concurrent registration in THRY COM 2302 is required for music majors and minors.

**THRY COM 2302 Aural Training III: 1 semester hour**

Prerequisite: THRY COM 1311 and THRY COM 1312 or consent of department. Systematic instruction in ear training and sight singing of THRY COM 1312 is continued. This course provides instruction in the performance and aural recognition of all musical devices introduced in THRY COM 2301. Concurrent registration in THRY COM 2301 is required for music majors and minors.

**THRY COM 2311 Theory Of Music IV: 3 semester hours**

Prerequisites: THRY COM 2301 and THRY COM 2302 or consent of department. This course continues the study of chromatic harmony of late nineteenth-century music, as well as the analysis of larger musical forms. Additionally, this course focuses on developing the ability to communicate analytical observations effectively in both written and spoken formats. Concurrent enrollment in THRY COM 2312 is required for all music majors and minors.

**THRY COM 2312 Aural Training IV: 1 semester hour**

Prerequisite: THRY COM 2301 and THRY COM 2302 or consent of department. The systematic instruction in ear training and sight singing of THRY COM 2302 is continued. This course provides instruction in the performance and aural recognition of all musical devices introduced in THRY COM 2311. Concurrent enrollment in THRY COM 2311 is required for all music majors and minors.

**THRY COM 3110 Analysis Of Music from 1900 to Present: 2 semester hours**

Prerequisite: THRY COM 2311 / THRY COM 2312 or consent of department. This course primarily provides a study of compositional devices in atonal and serial music since 1900.

**THRY COM 3120 Tonal Counterpoint: 2 semester hours**

Prerequisite: Music 112 or consent of department. Study of tonal counterpoint with emphasis on the eighteenth century style. Composition in two and three parts.

**THRY COM 3130 Advanced Analytical Techniques: 2 semester hours**

Prerequisites: THRY COM 2311/THRY COM 2312. Close analysis, seminar discussion, and focused theoretical/analytical study of selected compositions. Repertoire studied changes from year to year at discretion of instructor.

**THRY COM 3140 Readings in Music Theory: 2 semester hours**

Prerequisites: THRY COM 2311 and THRY COM 2312. An introduction to the primary areas of research in the field of music theory. This seminar-style course will include readings and discussion of a number of important writings in music theoretical areas including, but not limited to the following: tonal theory, post-tonal theory, mathematics and music, music cognition, and the history of music theory.

**THRY COM 3300 Seminar In Composition: 2 semester hours**

Prerequisite: THRY COM 3110 or consent of instructor. The study of composition in theory and practice.

**THRY COM 3310 Studio Composition: 1 semester hour**

Prerequisites: THRY COM 2311 and THRY COM 2312, or consent of department. Individual lessons in music composition. Course may be repeated for credit.

**THRY COM 3410 Orchestration: 3 semester hours**

Prerequisite: THRY COM 2311 or consent of instructor. Study of the instruments of the brass, woodwind, percussion, and string families; scoring, transcription, and arranging for various instrumental ensembles.

**THRY COM 3420 Choral Arranging: 2 semester hours**

Prerequisites: THRY COM 2311 or consent of department. Study of vocal ranges, characteristics and capabilities at various ages and scoring for choral ensembles comprised of singers in these varying stages of vocal development.

**THRY COM 4000 Directed Studies: Variable Topic: 1-5 semester hours**

Prerequisites: Consent of Instructor. Directed independent study of selected topics in music. May be repeated, but no more than 5 hours may be applied toward a degree.

**THRY COM 5110 Scoring And Arranging: 3 semester hours**

Prerequisite: Graduate Standing In Music. Experience In Scoring And Arranging Music For A Variety Of Ensembles.

## Courses

**THRY COM 1190 Fundamentals Of Music: 3 semester hours**

This course provides basic music vocabulary: scales, intervals, and chords, and systematic instruction in the melodic, rhythmic, and harmonic aspects of music. This course will not apply toward requirements for a music major.

**THRY COM 1300 Introduction to Music Theory: 1 semester hour**

This course introduces the basic vocabulary of music notation and theory and rudimentary skills of ear training and sight singing. This course must be taken concurrently with THRY COM 1301, but may be waived on the basis of a successful score on the Theory Placement Exam.

**THRY COM 1301 Theory Of Music I: 3 semester hours**

Prerequisite: Consent of department. This course introduces the basic materials of music as well as species counterpoint and diatonic harmony. Concurrent registration in THRY COM 1300 is required unless waived on the basis of a successful score on the Theory Placement Exam. Concurrent registration in THRY COM 1302 is required for music majors and minors.

**THRY COM 1302 Aural Training I: 1 semester hour**

Prerequisite: Consent Of Department. Systematic instruction in ear training and sight singing of all material covered in THRY COM 1301. Includes diatonic melodic and rhythmic dictation, chord quality recognition, sight singing of diatonic melodies, and the reading of units and divisions of units in simple and compound meters. Concurrent registration in THRY COM 1301 is required for music majors and minors.

**THRY COM 1311 Theory Of Music II: 3 semester hours**

PREREQUISITE: THRY COM 1300, THRY COM 1301, and THRY COM 1302 or consent of department. This course continues the study of diatonic harmony begun in THRY COM 1301. Harmonic function, phrase structure, harmonic sequences, secondary dominants, and simple modulation. Concurrent registration in THRY COM 1312 is required for music majors and minors.

**THRY COM 1312 Aural Training II: 1 semester hour**

Prerequisite: THRY COM 1301 and THRY COM 1302 or consent of department. The systematic instruction in ear training and sight singing begun in THRY COM 1302 is continued. This course provides instruction in the performance and aural recognition of all musical devices introduced in THRY COM 1311. Concurrent registration in THRY COM 1311 is required for music majors and minors.

**THRY COM 2301 Theory Of Music III: 3 semester hours**

Prerequisite: THRY COM 1311 and THRY COM 1312 or consent of department. This course begins the study of chromatic harmony and form in music of the eighteenth and nineteenth centuries. Concurrent registration in THRY COM 2302 is required for music majors and minors.

**THRY COM 2302 Aural Training III: 1 semester hour**

Prerequisite: THRY COM 1311 and THRY COM 1312 or consent of department. Systematic instruction in ear training and sight singing of THRY COM 1312 is continued. This course provides instruction in the performance and aural recognition of all musical devices introduced in THRY COM 2301. Concurrent registration in THRY COM 2301 is required for music majors and minors.

**THRY COM 2311 Theory Of Music IV: 3 semester hours**

Prerequisites: THRY COM 2301 and THRY COM 2302 or consent of department. This course continues the study of chromatic harmony of late nineteenth-century music, as well as the analysis of larger musical forms. Additionally, this course focuses on developing the ability to communicate analytical observations effectively in both written and spoken formats. Concurrent enrollment in THRY COM 2312 is required for all music majors and minors.

**THRY COM 2312 Aural Training IV: 1 semester hour**

Prerequisite: THRY COM 2301 and THRY COM 2302 or consent of department. The systematic instruction in ear training and sight singing of THRY COM 2302 is continued. This course provides instruction in the performance and aural recognition of all musical devices introduced in THRY COM 2311. Concurrent enrollment in THRY COM 2311 is required for all music majors and minors.

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Prerequisites: THRY COM 2311/THRY COM 2312. Close analysis, seminar discussion, and focused theoretical/analytical study of selected compositions. Repertoire studied changes from year to year at discretion of instructor.

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Prerequisites: THRY COM 2311 and THRY COM 2312. An introduction to the primary areas of research in the field of music theory. This seminar-style course will include readings and discussion of a number of important writings in music theoretical areas including, but not limited to the following: tonal theory, post-tonal theory, mathematics and music, music cognition, and the history of music theory.

**THRY COM 3300 Seminar In Composition: 2 semester hours**

Prerequisite: THRY COM 3110 or consent of instructor. The study of composition in theory and practice.

**THRY COM 3310 Studio Composition: 1 semester hour**

Prerequisites: THRY COM 2311 and THRY COM 2312, or consent of department. Individual lessons in music composition. Course may be repeated for credit.

**THRY COM 3410 Orchestration: 3 semester hours**

Prerequisite: THRY COM 2311 or consent of instructor. Study of the instruments of the brass, woodwind, percussion, and string families; scoring, transcription, and arranging for various instrumental ensembles.

**THRY COM 3420 Choral Arranging: 2 semester hours**

Prerequisites: THRY COM 2311 or consent of department. Study of vocal ranges, characteristics and capabilities at various ages and scoring for choral ensembles comprised of singers in these varying stages of vocal development.

**THRY COM 4000 Directed Studies: Variable Topic: 1-5 semester hours**

Prerequisites: Consent of Instructor. Directed independent study of selected topics in music. May be repeated, but no more than 5 hours may be applied toward a degree.

**THRY COM 5110 Scoring And Arranging: 3 semester hours**

Prerequisite: Graduate Standing In Music. Experience In Scoring And Arranging Music For A Variety Of Ensembles.

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