# UMSL Bulletin 2012-2013 

University of Missouri-St. Louis

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## I ntroduction to UMSL

## UMSL Home

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 landgrant 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..

## Academic Structure

UMSL's academic units include the following.

## College of Arts and Sciences

The College of Arts and Sciences is the largest and most diverse college at UMSL. In its continued efforts to improve and deliver the academic core for the campus, CAS's long-range plans have included various initiatives intended to strengthen the foundational coursework in the liberal arts. Also central to the college's mission is faculty and student collaboration in research and scholarship. Both undergraduate and graduate students participate in a community of scholars that promotes excellence in teaching, critical thinking skills, collaborative learning, and strong research and scholarship across a range of disciplines.

## College of Business Administration

Through its undergraduate and graduate degree programs, the College of Business Administration expands student capability in communication, analysis, and judgment, enabling its graduates to deal effectively with today's complex economic environment. The college maintains a balance between the specialization of professional courses and the diversity of liberal arts.

## College of Education

Consistently among the top institutions in the state in preparation of educators, the College of Education
provides undergraduate and graduate programs to support and sustain educational leaders. Its programs emphasize state-of-the-art technological applications to enhance teaching and learning as well as collaboration among university, school, agency, and corporate partners.

## College of Fine Arts and Communication

Faculty, students, and alumni of the College of Fine Arts and Communication, which includes the departments of Art and Art History, Communication, Music, and Theatre, Dance and Media Studies, have distinguished themselves as scholars, visual artists, teachers, and performers. The university's $\$ 55$ million Touhill Performing Arts Center that opened in the fall of 2003 provides two world-class venues for performances. In addition, three galleries on campus offer space for display of student and faculty artwork as well as visiting exhibitions.

## Graduate School

The Graduate School provides leadership to graduate programs across campus. In contrast to those in traditional universities, UMSL's graduate programs reflect the campus's mission as a public metropolitan research university: our faculty and students' scholarship advances understanding of their disciplines in rapidly changing local, regional, and global contexts.

## College of Optometry

The College of Optometry, one of 17 such programs in the United States, provides professional optometric education and clinical experience. Facilities are furnished with equipment and technology for the enhancement of both teaching and research. The college operates the University Eye Center on campus, the Optometric Center of St. Louis in the city's Central West End, the Harvester Eye Care Center in St. Charles County, and the East St. Louis Eye Center, jointly owned and operated by the UMSL College of Optometry and Southern Illinois University at Edwardsville.

## Pierre Laclede Honors College

Students in the Pierre Laclede Honors College major in any of the campus's undergraduate programs and share a commitment to a challenging, innovative general education curriculum. In the Honors College, students and faculty work together to foster an intellectual climate in which democracy, diversity, civility and excellence are fundamental values. The Honors program offers small seminars that emphasize critical reading and open discussion upon which students National Student Exchange

## College of Nursing

The College of Nursing offers programs at the bachelor's, master's, and doctoral levels. The Bachelor of Science in Nursing is available for a student wishing to pursue a program of study leading to eligibility to complete state licensure examinations to become a registered nurse (R.N.). The Master of Science in Nursing offers studies in adult, children, and women's health along with nurse educator and nurse leader tracks. Nurse practitioner options are also available (adult, family, pediatric, and women) as part of the MSN program. Doctoral students may choose between the Doctor of Nursing Practice (DNP) or the Ph.D. in Nursing.

## UMSL/ Washington University J oint Undergraduate Engineering Program

The University of Missouri St. Louis and Washington University joined forces to offer accredited Bachelor of Science degrees in mechanical, electrical, and civil engineering. Students who enter the program take about half of their course work--mathematics, physics, chemistry, humanities and social sciences, and some elementary engineering subjects--at UMSL. The remaining program consists of engineering courses and laboratories taken at Washington University. Students register for all courses at UMSL, pay tuition at UMSL rates (plus a small surcharge on engineering courses), and receive their degrees from the University of Missouri.

## School of Professional and Continuing Studies

School of Professional and Continuing Studies provides a wide variety of credit courses and noncredit professional development programs that help adults keep abreast of new developments in their field, prepare them for a career in a new field of endeavor, or enrich their personal and family life. Courses leading to undergraduate and graduate programs are also offered on the campuses of the St. Louis Community College South County Education Center, St. Louis Community College at Wildwood, St. Charles Community College, Jefferson College, and Mineral Area College.

## Student Life

Numerous student organizations at UMSL, from the Accounting Club to Zeta Tau Alpha sorority, seek members and leaders. Guest speakers, concerts, film series, plays, exhibits, recitals, and a host of informal gatherings crowd each week's schedule. The St. Louis area offers still more recreational sports and cultural events.

The university offers a wide range of varsity and intramural sports for students, whether as players or spectators. On the varsity level, the Tritons compete in most major sports, including men's soccer, basketball, baseball, and golf and women's basketball, soccer, softball, volleyball, and tennis.

Students participate in fitness activities, both organized and individual, on campus. The Mark Twain athletic facility offers a recently renovated fitness center, weight room, swimming pool, and basketball, volleyball,
handball, and racquetball courts. Outdoor facilities include tennis and handball courts, a fitness trail, and baseball, soccer, and softball fields. Intramural sports are available to all students, with schedules designed for maximum participation.

## UMSL Alumni

The university has over 84,000 graduates living in all 50 states and several foreign countries. Of these alumni, more than 77 percent live and work in the St. Louis metropolitan area and reflect the area's diversity. The university is a major force in providing the region with a highly educated and diverse work force. UMSL alumni can be found making contributions in companies and communities throughout the United States and internationally.

## Degree Programs \& Instructional Areas

UndergraduateDegrees | Undergraduate Certificates | Other Instructional Areas | Graduate Degrees | Graduate Certificates |

UMSL Home

## Undergraduate Degrees (Majors)

| Program | Degree | Emphasis Area |
| :--- | :--- | :--- |
| Accounting | BS |  |
| Anthropology | BA |  |
| Art History | BA |  |
| Biochemistry and <br> Biotechnology | BS |  |
| Biology | BA; BS |  |
| Business Administration | BSBA | Finance; International Business; Logistics and Operations <br> Management; Marketing |
| Chemistry | BA; BS |  |
| Civil Engineering | BSCE | Construction Engineering; Environmental Engineering <br> Science |
| Communication | BA |  |
| Computer Science | BS |  |
| Criminology and Criminal | BS |  |
| Ustice | BSED |  |
| Early Childhood Education | BA; |  |
| Economics | BES |  |
| Educational Studies | Early Childhood; Exercise Science; Professional Educational |  |
| Studies |  |  |
| Electrical Engineering | BSEE |  |
| Elementary Education | BSED |  |
| English | BA |  |
| History | BA |  |
| Information Systems | BS |  |
| Interdisciplinary Studies | BIS |  |
| Liberal Studies | BLS |  |
| Mathematics |  |  |
| Mechanical Engineering |  |  |
|  |  |  |


| Media Studies | BS |  |
| :--- | :--- | :--- |
| Modern Language | BA | French, German, J apanese, Spanish |
| Music | BA; BM | Elective Studies in Bus (BM only); Performance (BM only); <br> Music Education (BM only) |
| Nursing | BSN |  |
| Philosophy | BA | Pre-Law, Science Studies, Psychology and Neuroscience, <br> Ethics and Society, Health Sciences, History |
| Physical Education | BSED | PK-9; PK-12 |
| Physics | BA; BS | Astrophysics (BS only); Engineering Physics (BS only); <br> General Physics (BS only); Medical Physics (BS only) |
| Political Science | BA |  |
| Psychology | BA |  |
| Public Policy and | BSPPA |  |
| Administration | BSED | Business Education; English; Mathematics; Modern Foreign <br> Language-French; Modern Foreign Language-German; <br> Modern Foreign Language-Spanish; ; Modern Foreign <br> Language- Japanese; Music; Science-Biology; Science- <br> Chemistry; Science-Physics; Social Studies-Economics; <br> Social Studies-History; Social Studies-Poli Science; Social <br> Studies-Psychology; Social Studies-Sociology |
| Secondary Education | BSW |  |
| Bocial Work | BA; BS |  |
| Sociology | BSED | Emotionally Disturbed; Learning Disability; Mentally <br> Retarded |
| Special Education | Drawing; General Fine Arts; Graphic Design; Photography; <br> Painting; Printmaking; Art Education |  |
| Studio Art | BA |  |
| Theatre and Dance |  |  |

## Undergraduate Minors

All of the majors above may be taken as minors. The following lists additional minors, and certificates (below) may also serve as minors. Not all minors are appropriate to all degrees, however; please check with your advisor before selecting a minor or certificate.

- American Politics
- Athletic Coaching
- Comparative Politics
- International Relations
- Lazz Studies
- Legal Studies
- Mathematics Education K-5
- Philosophy of Science and Technology
- Non-Profit Administration
- Political Theory
- Public Administration
- Public Affairs Journalism
- Public Policy (inactive)
- Statistics
- Urban Education P-5 Minor
- Urban Politics (inactive)
- Women and Politics (inactive)


## Undergraduate Certificates

All of the majors above may be taken as minors. The following lists additional minors, and certificates may also
serve as minors. Not all minors are appropriate to all degrees, however; please check with your advisor before selecting a minor or certificate.

- Post-Baccalaureate Certificate in Accounting
- Actuarial Studies (pending CBHE approval)
- Arcaheology
- Advertising
- African Studies
- Biochemistry
- Biotechnology
- Conservation Biology
- Creative Writing
- Disaster and Risk Management
- East Asian Studies
- Environmental Studies
- Evolutionary Studies (pending CGHE approval)
- Film Studies
- Gender Studies
- Gerontological Studies
- Greek Studies Certificate
- History and Philosophy of Science \& Technology
- Honors College
- International Business Certificate
- Labor Studies
- Latin American Studies
- Modern European Studies
- Neuroscience
- Nonprofit Arts Organization Management \& Leadership (Inactive)
- Nonprofit Organization Management \& Leadership
- Photographic Studies
- Public Relations
- Studies in Religions
- Trauma Studies
- Professional Writing


## Other Instructional Areas

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

- American Studies
- Arabic
- Astronomy
- Atmospheric Science
- Chinese
- Dance
- Ensemble Performance
- Geology
- Legal Studies
- Literature
- Medical Physics
- Pre Engineering
- Pre-Health Sciences
- Pre-Law
- Pre-Veterinary Science
- Reserve Officer Training Corps


## Graduate Degrees

| Program | Degree | Emphasis Area |
| :--- | :--- | :--- |
| Accounting | MACC |  |
| Adult and Higher Education | MED | Adult Education; Higher Education |
| Applied Mathematics | PHD | Computer Science; Mathematics |
| Biochemistry and <br> Biotechnology | MS |  |
|  |  |  |

Bulletin 2012-2013: Degree Programs \& Instructional Areas

| Biology | MS | Cellular and Molecular Biology; Ecology, Evolution and Systematics |
| :---: | :---: | :---: |
| Biology | PHD | Cellular and Molecular Biology; Ecology, Evolution and Systematics |
| Business Administration | MBA | Accounting; Finance; Information Systems; International Business; Logistics \& Supply Chain Management; Management; Marketing; Operations Management |
| Business Administration | PHD | Information Systems (inactive); Logistics \& Supply Chain Management |
| Chemistry | MS; PHD | Biochemistry; Inorganic; Organic; Physical |
| Communication | MA |  |
| Computer Science | MS |  |
| Counseling | MED | Clinical Mental Health Counseling; Elementary; Secondary |
| Creative Writing | MFA |  |
| Criminology and Criminal Justice | MA; PHD |  |
| Economics | MA | Business Economics; General Economics |
| Education | EDD | Adult \& Higher Education; Counselor Education; Educational Administration; Teaching-Learning Processes |
| Education | PHD | Counseling; Educational Leadership and Policy Studies; Educational Psychology; Teaching-Learning Processes |
| Educational Administration | EDS |  |
| Educational Administration | MED | Community Education; Elementary Administration; Secondary Administration |
| Elementary Education | MED | General; Early Childhood; Reading |
| English | MA | Literature; Writing Studies |
| Gerontology | MS |  |
| History | MA | Museum Studies |
| Information Systems | MS |  |
| Mathematics | MA |  |
| Music Education | MME |  |
| Nursing | MSN | Adult Nurse Practitioner; Family Nurse Practitioner; Neonatal Nurse Practitioner; Nurse Educator; Nurse Leader; Pediatric Nurse Practitioner; Women's Health Nurse Practitioner |
| Nursing | PHD; DNP |  |
| Philosophy | MA |  |
| Physics | MS | Applied Physics; Astrophysics |
| Physics | PHD |  |
| Political Science | MA | American Politics; Comparative Politics; International Politics; Political Process and Behavior; Public Admin and Public Policy; Urban and Regional Politics |
| Political Science | PHD |  |
| Psychology | MA |  |

Bulletin 2012-2013: Degree Programs \& Instructional Areas

| Psychology | PHD | Behavioral Neuroscience; Clinical-Community Psychology; <br> Industrial and Organizational Psychology |
| :--- | :--- | :--- |
| Public Policy Administration | MPPA | Health Policy; Local Government Mgmt; Managing Human <br> Resources and Organization; Nonprofit Organization Mgmt; <br> Policy Research and Analysis |
| School Psychology | EDS |  |
| Secondary Education | MED | General; Curriculum and Instruction; Middle Level <br> Education; Reading; Teaching English to Speakers of Other <br> Languages |
| Social Work | MSW |  |
| Special Education | MED | Early Childhood Special Education; Autism and <br> Developmental Disabilities; Cross Categorical Disabilities |
| Vision Science | MS; PHD | Inactive |

## Professional Degree

| Program | Degree |
| :--- | :--- |
| Optometry | OD |

## Graduate Certificates

- ACP Instructional Communication
- Autism
- Biotechnology
- Business Administration
- Community College Leadership
- 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
- Post MSN Adult Nurse Practitioner
- Post MSN Family Nurse Practitioner
- Post MSN Pediatric Nurse Practitioner
- Post MSN Women's Health Nurse Practioner
- Program Evaluation and Assessment
- Psychology - Clinical Re-specialization
- Secondary School Teaching
- Teaching English to Speakers of Other Languages
- Teaching of Writing
- Trauma Studies
- Tropical Biology and Conservation
- Gender Studies


## Undergraduate Study

## UMSL Home

This section includes admission and academic policies for students seeking to study in undergraduate programs at the University of Missouri-St. Louis.

## 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 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, 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 by appearing in person at the office of the Registrar 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 (if the school computes it), 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 graduating seniors must present an ACT Composite score of 24 or higher or an SAT composite score (Critical Reading + Math) of 1090 or higher.
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 1100 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 $\mathbf{1 7}$ to $\mathbf{2 3}$ or the total of SAT Critical Reading and Math scores is $\mathbf{8 2 0}$ to $\mathbf{1 0 8 0}$, the applicant must meet the following high school class rank requirement to qualify for admission.

| ACT | SAT Total <br> Critical Reading, Math | High School Class <br> Percentile Rank |
| :--- | :---: | :---: |
| 23 | $1050-1080$ | 48 |
| 22 | $1020-1040$ | 54 |
| 21 | $980-1010$ | 62 |
| 20 | $940-970$ | 69 |
| 19 | $900-930$ | 78 |
| 18 | $860-890$ | 86 |
| 17 | $820-850$ | 94 |

## Automatic Admission

Applicants that
A. Rank in the top $10 \%$ of the graduating class of a Missouri high school; and
B. 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
C. Submit an ACT/SAT score.

Will be eligible for automatic admission to any campus of the University of Missouri.
Applicants that
A. Graduate from a Missouri high school that does not rank its graduates; but
B. 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
C. Achieve a 3.5 GPA on a 4.0 scale in these core courses; and
D. 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:

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 314-5165451 or by e-mail at admissions@umsl.edu.

## Acceptance.

Upon graduation, applicants must submit a final high school transcript indicating their class rank and graduation date. First time freshmen may be required to take a 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. 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 a 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 412 SSB, 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.

## 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 General Education Development (GED) test with a minimum 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 on-line 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 at least 24 or SAT Composite of at least 1090
- A copy of course of study or transcript reflecting all coursework and grades earned (if available), 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 testscore report of the General Education Development (GED) test with a minimum composite score of 2500 (for tests taken after J anuary 1, 2002; minimum score of 250 for tests taken prior to January 1, 2002) must be presented.


## 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 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 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 still 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 gpa .

## Missouri State Transfer Agreement.

Although transfer students should be aware that requirements for degrees vary from institution to institution so 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), 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 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-bycourse 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.

## 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 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.

## 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 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 or by calling the Office of Admissions at 314-516-5451.

## Admission for Students Not Seeking a 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 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 351 Millennium Student Center, or by calling 314-516-5451. Students should complete and return the form with proof of age to the Office of Admissions on the day before classes are scheduled to begin.

## Academic Policies

## UMSL Home

The Faculty Senate determines academic policies for undergraduate studies at the University of Missouri-St. Louis. These policies govern all students at UMSL, but most programs have additional policies for their majors.

## Courses and Grades

## 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: <br> 3000-3999

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

6000-6999
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.

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

Graduate courses open to doctoral students and master's degree students with special
7000-7999 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 two credit 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).

## Grading System

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

```
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.

## 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.

1. 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.
2. 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.

## 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 $\mathrm{A}, \mathrm{A}-, \mathrm{B}+, \mathrm{B}-, \mathrm{C}+$, or $\mathrm{C}_{-}$, 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.

## 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+, C, or C have been earned. All grades earned will affect the calculation of students' cumulative grade point average; the course hours, however, will be counted only once in calculating hours toward a degree. (See Grade Modification.)

## Grade Modification.

When the grade received in an initial attempt in a course at UMSL is a D+, D, D , or F, 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. A maximum of five classes may be dropped from the calculation of the student's GPA. 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.

## 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.

## 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-J anuary 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 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.

## Course Load

A normal full time semester course load is 15 semester credit hours. Minimum full time 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.

## Attendance

Students are expected to attend class regularly, and, in accordance with the UMSL 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.

## 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 a regular semester, the first four days of an eight-week session, or the first three days of a four-week session.

Courses may be dropped, without approval and without receiving a grade, through the fourth week of a regular semester, the second week of an eight-week session and the first week 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 this period, 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 s 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, 351 Millennium Student Center.

## Change of Major

To change academic majors, students should consult their adviser and the dean's office. Students admitted to one college or school may pursue work in others under the conditions set forth by the faculty. The chairperson of a student's major department shall determine which courses in other colleges or schools, or even other institutions, shall apply as credit toward the degree.

Students who wish to change a major must submit a change of major form. These forms may be obtained in their College Advising office, the Registrar's Office, or the Center for Student Success, 225 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.

## 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 Integrity

## 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.

## Confidentiality Policy

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.

2. 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 two week 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 two week period in a regular semester and the first day of classes following the end of the one week period during the summer session.
3. 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.

4. 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.
5. 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.
6. 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.
7. 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.
8. 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:

- 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.
- 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.
- 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.
- The student shall be afforded a full and fair opportunity to present evidence relevant to the hearing.
- 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.

9. 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.
10. The University of Missouri St. 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.
11. 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.

## Academic Recognition

## Honor Societies

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

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 part time 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.

## Who's Who Among Students in American Universities and Colleges

Eligible students may be nominated to Who's Who Among Students in American Universities and Colleges by students (themselves or others), faculty members, or administrators. Nominees are selected on the basis of scholastic ability, participation and leadership in academic and extracurricular activities, service to the university, and a promise for future usefulness. Nomination forms and further information may be obtained in room 366 Millennium Student Center or by visiting the Who's Who information page.

## 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 grade 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 I nformation
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.

## Registration

## UMSL Home

## Registering for Classes: New Students

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 UMSL 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.

## Academic Advising

Undergraduate students are admitted to the college or school that offers the degree program declared on the student's application. The university's Academic Advising Website has advising information for all undergraduate students.

Undeclared students, visiting students, and non-degree-seeking students are admitted to the College of Arts and Sciences but advised in the Center for Student Success 225 MSC.

Undeclared students are encouraged to declare a major as soon as possible since it is important to determine what specific requirements must be satisfied to complete the baccalaureate program. The Center for Student Success has workshops that assist students with their decisions.

## College of Arts and Sciences

All incoming undergraduate students are required to be advised. Advising services are available in the College Advising Office located in 303 Lucas or in their major department. Students who have declared majors are encouraged to contact their major departments as soon as possible. Please visit the college website for a complete list of Departmental Faculty Advisors and other student resources.

Since there are specific requirements that each major must satisfy to complete a baccalaureate program, students are urged to declare their majors as soon as possible. This may be done at the time of application or later in the Office of Undergraduate Student Affairs of the College of Arts and Sciences. Once a student declares a major, the department offering the degree will assign a faculty adviser and contact the student. The adviser, usually a faculty member in the student's area of interest, will assist in selecting suitable courses and advise the student in matters relating to degree requirements.

Students with specific concerns related to the specialized degree requirements of the college, including transfer credit, should consult with the academic departments responsible for their majors. Students may also contact the Office of Undergraduate Student Affairs of the College of Arts and Sciences by phone at (314) 516-5501 for clarification on any academic issues or by e-mail at artscience@umsl.edu

## College of Business Administration

The College of Business Administration's office of undergraduate academic advising provides assistance to students in planning their academic careers, and in dealing with appropriate course selection, College of

Business Administration requirements, general education requirements, evaluation of transfer credit, course prerequisites, school policies and regulations, and graduation requirements. Other matters related to a student's academic career should also be directed to this office.

Transfer students admitted to the College of Business Administration should contact the advising office and plan to meet with an advisor early in the semester for an evaluation of transfer credit and the planning of their degree programs.

All students are urged to make advising appointments early during each semester, prior to registration dates, to obtain approval of schedules for upcoming semesters. Advising is a continuous and ongoing process. For additional information, call 314-516 5888 or email bus_undergrad@umsl.edu.

## College of Education

Students wishing to prepare for teaching careers should consider the following:
Students who intend to teach in elementary, early childhood, middle school, special education, secondary education, or physical education settings must apply for admission to the College of Education.

Students who intend to teach in secondary school classrooms may choose to pursue the bachelor's degree in the College of Arts and Sciences plus certification, or the B.S. in education degree, which includes Missouri certification.

With either option, students must meet university and departmental requirements, as well as those for teacher certification in Missouri. Regardless of which option students choose, they must complete the formal application to the teacher education program, available online. Careful planning of individual schedules is necessary to ensure selection of appropriate courses and to avoid extending programs. Students should therefore seek advisory help from the Teacher Certification and Advising Office at the earliest opportunity. Regular consultation with advisers is essential. The office provides assistance to all students interested in professional education programs and certification requirements. Questions about admission to the teacher education program, sequencing of courses, prerequisites, graduation requirements, and related matters should be directed to 314-516-5937 or in person in Room 155 Marillac Hall, South Campus.

## College of Fine Arts and Communication

The College of Fine Arts and Communication includes the programs in Art and Art History, Communication, Music, and Theatre, Dance and Media Studies.

For advising, students may contact the Office of Undergraduate Student Affairs located in 303 Lucas, call 314-516-5501, or visit the college's Advising Website for departmental contacts.

Students who maintain a relationship with their department have greater opportunities to meet other students with similar interests as well as to optimize their student experience.

## College of Nursing

The College of Nursing offers the bachelor of science in nursing degree (B.S.N.) for non-RNs through a fouryear or accelerated program of study. RNs who are graduates of diploma or associate degree nursing programs complete a junior senior B.S.N. completion option (RN to B.S.N.). With both options (pre- or postlicensure), students must meet university and College of Nursing requirements.

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.

## Pierre Laclede Honors College

Honors Scholars receive both academic advising and personal counseling from the college's administrative and teaching staff throughout their undergraduate careers. During the first two years, particular attention is given to the ways in which students fulfill Honors College and university general education requirements and prepare themselves for their majors by taking the necessary prerequisites. After a major is declared, Honors College advisement with regard to work done for honors credit continues and is supplemented by major related advising provided by the appropriate academic unit. The college identifies candidates for major graduate fellowships and assists them in preparing their dossiers. Similar assistance is given to scholars planning to go on to graduate and professional schools or seeking career opportunities immediately upon graduation. Honors advising is housed in 106 Provincial House and is explicit on the college's Academic Advising Website.

## Fees for Undergraduate Study

## UMSL Home

## 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. The total per-credit-hour fee rate includes tuition, mandatory fees, and course fees. Detailed Information on tuition and fee rates and residency status can be found on the Cashier's website.

## Financial Responsibility

Each semester, a Financial Responsibility agreement will be presented to all students. 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 and through links on the eBill website. 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 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 student system to make payment using a personal checking or savings account or a MasterCard, Discover or American Express credit card. $(2.75 \%$ service charge applied to credit card payments) VISA credit cards are NOT accepted.

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.

Payment Kiosks - Payment from a personal checking or savings account or by MasterCard, Discover, or American Express credit card can be made at any of the four payment kiosks located in the MSC. (2.75\% service charge applied to credit card payments) VISA credit cards are NOT accepted.

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 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. 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.

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. 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 - Credit balances resulting from the disbursement of Parent-Plus Loans will be refunded directly to the parent. The refund check is mailed to the address on file for the parent unless written instruction is submitted by the parent to the Cashier's Office authorizing the student to receive the funds.

Credit Card Refund - If a credit card payment has been made towards your student account in the past 60 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 (Educational Fee), Student Activity and Health Fee, Information Technology Fee, Special Course Fee (if applicable), and Parking Fee (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 cancelled 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 cancelled student will be placed at the end of the course wait list.
Any student who has been administratively cancelled for nonpayment of assessed fees may not enroll in a class unless the required fees have been paid and the student has officially re-registered.

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.

## General Education Requirements

## UMSL Home

## General Education Requirements:

Students must successfully complete the general requirements of the university, the school or college in which they are enrolled, and the specific requirements of their area of specialization. Described below are the general education requirements for all degrees. Students may consult their degree audit (DARS) report for recommended general education courses in their major.

At the University of Missouri-St. Louis, General Education affords both freshmen and transfer students the opportunity to develop and apply intellectual tools and to acquire a breadth of knowledge necessary in our challenging, technological, and diverse world. This curriculum also challenges students to investigate various disciplines as potential majors, and it prepares them for success in major fields of study. The program complies fully with the Missouri Coordinating Board of Higher Education Guidelines on Transfer and Articulation (June 2000).

## General Education Requirements

## Application of Policy to Freshmen

All students in Missouri public universities must complete the requirements of a General Education Plan totaling 42 credit hours in order to earn a baccalaureate degree.

Application of Policy to Transfer Students
Transfer policies describe which courses may apply to UMSL's General Education requirements. In general, students who transfer to UMSL with an Associate of Arts (AA) degree from an accredited Missouri institution are considered to have completed all general education requirements. Additionally, UMSL has a Junior-Level Writing requirement and Mathematics Proficiency (explained below) beyond the general education requriement. Transfer students without an AA degree from Missouri may transfer a CBHE-approved 42-hour block of General Education courses, in accordance with the CBHE Transfer and Articulation agreement. However, those students transferring with fewer than 42 hours or from a non-participating institution will have their transcripts evaluated on a course-by-course basis.

Credit associated with military science and developmental/remedial coursework are not considered transferable to UMSL's General Education requirements.

## Application of Policy to Students Who Started Prior to Fall 2002

Students who earned 24 or more semester hours of credit* at any accredited post-secondary institutions(s) before the start of the fall 2002 semester may meet the general education requirements stipulated in the UMSL 2001-2002 Bulletin or elect to complete the current General Education Plan described below.
*Only credit that is transferable to UMSL is applicable
SKI LL GOALS:
Communicating Skills (minimum 6 credit hours) [C]
Managing Information Skills (minimum 3 credit hours) [MI]
Valuing Skills (minimum 3 credit hours) [V]

## KNOWLEDGE GOALS:

Social and Behavioral Sciences Knowledge Goal (minimum 9 credit hours) [SS]
Humanities and Fine Arts Knowledge Goal (minimum 9 credit hours) [H]
Mathematics and Life/ Natural Sciences (minimum 12 credit hours) [MS]
Students may take only those courses listed below for the 42-hour General Education block. Many courses satisfy more than one goal, are designated as such, and may be counted for all of the goals listed
for each specific course. Select courses that meet only a skill goal(s) without a knowledge goals have been marked with an asterisk, and it should be noted that those courses concentrate on the designated skill comprehensively.

Once students have met the required number of courses or hours under each goal, they have the
opportunity to take any of the certified General Education courses listed under abt goal to achieve the 42-hours. The university encourages students to select General Education courses to meet their individual needs and interests. Students may not take any upper-level courses or any lower-level courses that do not appear on the list of certified General Education courses to complete the 42hour block.

General Education at the University of Missouri-St. Louis offers students an exciting and challenging curriculum that develops the skills and knowledge necessary to succeed in today's changing world. The following information outlines each of the six goals and the courses that meet the competencies students must achieve to accomplish the designated skills and knowledge goals.

## general education goals and courses

## PLEASE NOTE:

* Course addresses skill goal(s) and no knowledge goals. The course covers the skill goal comprehensively and is suggested for those students who seek an in-depth coverage of that skill.
**Course will count for Cultural Diversity Graduation Requirement.
*** Course will count for State Government/History Requirement (Honors students should check with Honors College each semester for list of Gen. Ed. Courses that meets this requirement).


## GOALS:

SKI LL GOALS:
COMMUNICATING (minimum 6 credit hours)
MANAGING INFORMATION (minimum 3 credit hours)
VALUING (minimum 3 credit hours)

## KNOWLEDGE GOALS:

SOCIAL AND BEHAVIORAL SCIENCES (minimum 9 credit hours)
HUMANITIES AND FINE ARTS (minimum 9 credit hours)
MATHEMATICS AND LIFE/NATURAL SCIENCES (minimum 12 credit hours)

## GOAL \# 1 COMMUNI CATI NG SKI LLS

The Communicating Skills Goal develops students' effective use of the English language and quantitative and other symbolic systems essential to their success in school and in the world. Students should be able to read and listen critically and to write and speak with thoughtfulness, clarity, coherence, and persuasiveness (CBHE General Education, June 2000).

Students must complete a minimum of six credit hours in the Communicating Skills area including a freshman composition course (ENGL 1100, 1110 or HONORS 1200) and one other course taken from the following list:

* comprehensive coverage of skill goal
** satisfies cultural diversity requirement
***satisfies state government requirement

| Department | Course \# | Course Title and Credit Hours |
| :--- | :--- | :--- |
| English | 1100 or | First-Year Writing* (3) |
| English | 1110 or | First-Year Writing for International Students* (3) |
| Honors | 1100 | Freshman Composition for Honors Students |
| (3) |  |  |
| Select a minimum of one <br> Course: |  |  |
| Anthropology | 1163 | Disagreement, Difference, Diversity (3) |
| Art History | 1175 | Arts \& Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN <br> 1175, ART HS, 1175) (3) |
| Communication | 1030 | Interpersonal Communication* (3) |
| Communication | 1040 | Introduction to Public Speaking* (3) |
| Communication | 1050 | Introduction to Mass Communication (3) |
| Biology | 1102 | Human Biology (3) |
| Chemistry | 2223 | Quantitative Analysis (3) |
| Chemistry | 2633 | Organic Chemistry Laboratory (2) |
| English | 1120 | Introduction to Literature (3) |


| English | 1130 | Topics in Literature (3) |
| :---: | :---: | :---: |
| English | 1170 | American Literary Masterpieces (3) |
| English | 1175 | Arts \& Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN 1175, ART HS, 1175) (3) |
| English | 1200 | Myth (3) |
| English | 1700 | African-American Literature (3) |
| English | 1950 | Topics in Literature (3) |
| English | 2030 | Poetry Writing (3) |
| English | 2040 | Short Story Writing (3) |
| English | 2120 | Topics in Writing (3) |
| English | 2240 | Literature of the Old Testament (3) |
| English | 2250 | Literature of theNew Testament (3) |
| English | 2310 | English Literature Before 17901 (3) |
| English | 2320 | English Literature II (3) |
| English | 2330 | Introduction to Poetry (3) |
| English | 2710 | American Literature Before 1865 (3) |
| English | 2720 | American Literature After 1865 (3) |
| English | 2810 | Traditional Grammar* (3) |
| Foreign Language | 2100 | Languages and World View (3) |
| French | 2170 | Intermediate French Language and Culture (3) |
| French | 2180 | Readings in French(3) |
| German | 2170 | Intermediate Practice in Speaking and Writing German (3) |
| German | 2180 | Intermediate Readings in German (3) |
| History | 1001 | American Civilization to 1865*** (3) |
| History | 1002 | American Civilization 1865 to Present*** (3) |
| History | 1004 | The History of Women in the United States*** (3) |
| History | 1030 | The Ancient World (3) |
| History | 1031 | Topics in European Civilization to 1715 (3) |
| History | 1032 | Topics in European Civilization since 1715 (3) |
| History | 1051 | Latin American Civilization** (3) |
| History | 1061 | African Civilization To 1800** (3) |
| History | 1062 | African Civilization Since 1800** (3) |
| History | 1075 | World History to 1500 (3) |
| History | 1076 | World History since 1500 (3) |
| History | 1175 | Arts \& Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN 1175, ART HS, 1175) (3) |
| History | 1776 | History of American Leadership(3) |
| Honors | 1110 | Honors Western Traditions: Humanities (3) |
| Honors | 1130 | Honors Western Traditions: Social \& Behavioral Sciences (3) |
| Honors | 1330 | Honors Non-Western Traditions** (3) |
| Honors | 1900 | Cross-Cultural Readings (1-3) |
| Honors | 2010 | Honors Inquiries in the Humanities (3) |
| Honors | 2020 | Honors Inquiries in the Fine Arts (3) |
| Honors | 2030 | Honors Inquiries in the Social and Behavioral Science (3) |
| Honors | 2050 | Honors Inquiries in Natural Sciences (3) |
| Interdisciplinary | 1999 | Big History: From the Big Bang to the Blackberry (9) |
| J apanese | 2102 | Intermediate J apanese II (5) |
| Mathematics | 1021 | Choice and Chance (3) |
| Media Studies | 1050 | Introduction to Media Studies (3) |


| Media Studies | 2218 |  |
| :---: | :---: | :---: |
| Philosophy | 1021 | Choice and Chance (3) |
| Philosophy | 1163 | Disagreement, Difference, Diversity (3) |
| Public Policy in Telecommunication (3) |  |  |
| Music History \& Literature | 1175 | Arts \& Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN 1175, ART HS, 1175) (3) |
| Philosophy | 1175 | Arts \& Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN 1175, ART HS, 1175) (3) |
| Philosophy | 2280 | Minds, Brains, and Machines (3) |
| Philosophy | 2282 | Philosophy of Science in Historical Perspective (3) |
| Spanish | 2171 | Spanish Conversation and Pronunciation (3) |
| Spanish | 2172 | Spanish Composition (3) |
| Spanish | 2180 | Readings in Spanish** (3) |
| Theatre \& Dance | 1175 | Arts and Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN 1175, ART HS, 1175) (3) |
| Theatre \& Dance | 1210 | Fundamentals of Acting (3) |
| Theatre \& Dance | 1800 | Introduction to Theatre (3) |
| Theatre \& Dance | 1850 | Introduction to Non-Western Theatre ** (3) |
| Theatre \& Dance | 2020 | Acting for the Camera (3) |
| Theatre \& Dance | 2105 | Script Analysis (3) |
| Theatre \& Dance | 2211 | Acting Styles (3) |
| Theatre \& Dance | 2810 | History of World Theatre and Drama Through the Restoration (3) |
| Theatre \& Dance | 2820 | History of World Theatre and Drama from 18th Century to Contemporary Times (3) |
| Theatre \& Dance | 2840 | History of Dance to the 19th Century (3) |

## GOAL \# 2 MANAGI NG I NFORMATI ON SKI LLS

The Managing Information Skills Goal develops students' abilities to locate, organize, store, retrieve, evaluate, synthesize and annotate information from print, electronic, and other sources in preparation for solving problems and making informed decisions (CBHE General Education, June 2000).

Students must complete a minimum of three credit hours in the Managing Information Skills area taken from the following list:

* comprehensive coverage of the skill goal
** satisfies cultural diversity requirement
$* * *$ satisfies state government requirement

| Department | Course \# | Course Title and Credit Hours |
| :--- | :--- | :--- |
| Anthropology | 1005 | Introduction to Biological Anthropology (4) |
| Anthropology | 1006 | Introduction to Non-Human Primates (3) |
| Anthropology | 1019 | Introduction to Archaeology** (3) |
| Anthropology | 1033 | World Archaeology** (3) |
| Anthropology | 2105 | Human Variation** (3) |
| Art History | 1104 | Indigenous Arts of North America** (3) |
| Art History | 2212 | Greek Art and Archaeology (3) |
| Art History | 2213 | Roman Art and Archaeology (3) |
| Art History | 2214 | Early Christian and Byzantine Art (3) |
| Art History | 2225 | Medieval Art (3) |
| Art History | 2237 | Northern European Renaissance Art (3) |
|  |  |  |


| Art History | 2245 | Baroque Art and Architecture (3) |
| :---: | :---: | :---: |
| Art History | 2250 | Nineteenth Century European Art (3) |
| Art History | 2265 | History of Photography (3) |
| Art History | 2270 | American Art to 1876 (3) |
| Art History | 2272 | American Art since 1876 (3) |
| Art History | 2279 | American Architecture (3) |
| Art History | 2281 | Art since 1960 (3) |
| Astronomy | 1001A | Cosmic Evolution/Introductory Astronomy ( without lab) (3) |
| Astronomy | 1001 | Cosmic Evolution/Introductory Astronomy (with lab) (4) |
| Atmospheric Science | 1001A | Elementary Meteorology (without lab) (3) |
| Atmospheric Science | 1001 | Elementary Meteorology (with lab) (4) |
| Biology | 1202 | Environmental Biology (3) |
| Biology | 1350 | Conservation of Biodiversity (3) |
| Biology | 1811 | Introduction to Biology I: From Molecules to Organisms (5) |
| Biology | 1999 | Evolution for Everyone (3) |
| Biology | 1821 | Introduction to Biology II: Organisms and the Environment* (5) |
| Business Administration | 1590 | Personal Finance (3) |
| Business Administration | 2900 | Legal Environment of Business (3) |
| Chemistry | 1011 | Chemistry in the Environment and Everyday Living (3) |
| Chemistry | 1052 | Chemistry for the Health Professions (4) |
| Chemistry | 1062 | Organic and Biochemistry for Health Professions (2) |
| Chemistry | 1111 | Introductory Chemistry I (5) |
| Chemistry | 1121 | Introductory Chemistry II (5) |
| Chemistry | 2223 | Quantitative Analysis (3) |
| Chemistry | 2622 | Organic Chemistry II (3) |
| Chemistry | 2633 | Organic Chemistry Laboratory (2) |
| Chemistry | 3412 | Basic Inorganic Chemistry (2) |
| Computer Science | 1010 | Introduction to Computers (credit not granted for both CMP SCI 1010 and INFSYS 1800)* (3) |
| Computer Science | 1011 | Introduction to the Internet and World Wide Web (3) |
| Computer Science | 1012 | Learning to Program Using Virtual Worlds (3) |
| Criminology \& Criminal Justice | 1100 | Introduction to Criminology \& Criminal Justice (3) |
| Economics | 2410 | The Economics of Women, Men and Work (3) |
| Economics | 2800 | History of American Economic Development (3) |
| English | 1100 | First-Year Writing (3) |
| English | 1110 | First-Year Writing for International Students (3) |
| Finance | 1590 | Personal Finance (3) |
| Geography | 1001 | Introduction to Geography (3) |
| Geography | 1002 | World Regions (3) |
| Geology | 1001A | General Geology (3) |
| Geology | 1001 | General Geology (4) |
| Geology | 1002A | Historical Geology (3) |
| Geology | 1002 | Historical Geology (4) |
| History | 2800 | History of American Economic Development (3) |
| Honors | 1200 | Freshman Symposium: Cultural Traditions 1** (3) |
| Honors | 1310 | Non-Western Traditions (3) |
| Honors | 2051 | Inquiries in the Sciences: Laboratory or Field Work (1) |


| Information Systems | 1800 | Computers and Information Systems (credit not granted for <br> both INFSYS 1800 and CMP SCI 1010)* (3) |
| :--- | :--- | :--- |
| Media Studies | 2271 | History of American Film (3) |
| Media Studies | 2272 | Contemporary Cinema (3) |
| Physics | 1011 | Basic Physics I (4) |
| Physics | 1012 | Basic Physics II (4) |
| Physics | 2111 | Physics: Mechanics and Heat (5) |
| Physics | 2112 | Physics: Electricity, Magnetism and Optics (5) |
| Political Science | 1450 | Introduction to Labor Studies 4 (3) |
| Political Science | 1500 | Introduction to Comp. Politics (3) |
| Political Science | 1550 | Women and Politics in the Developing World (3) |
| Political Science | 1820 | Global Issues (3) |
| Political Science | 1990 | The City (3) |
| Sociology | 1999 | The City (3) |
| Theatre \& Dance | 2820 | The History of World Theatre \& Drama from 18th Century to |
| Contemporary Times (3) |  |  |
| Theatre \& Dance | 2840 | History of Dance to the 19th Century (3) |

## GOAL \# 3 VALUI NG SKILL

The Valuing Skills Goal develops students' abilities to understand the moral and ethical values of a diverse society and to understand that many courses of action are guided by value judgments about the way things ought to be. Students should be able to make informed decisions through identifying personal values and the values of others and through understanding how such values develop (CBHE General Education, June 2000).

Students must complete a minimum of three credit hours in the Valuing Skills area taken from the following list:
**satisfies cultural diversity requirement
***satisfies state government requirement

| Department | Course \# | Course Title and Credit Hours |
| :--- | :--- | :--- |
| Anthropology | 1011 | Introduction to Cultural Anthropology** (3) |
| Anthropology | 1021 | The Body in Culture(3) |
| Anthropology | 1025 | World Cultures (3) |
| Anthropology | 1037 | The Wonders of Greece: Introduction to Greek History and <br> Culture (3) |
| Anthropology | 1041 | Sex and Gender Across Cultures (3) |
| Anthropology | 1052 | The Olympic Games: Ideals \& Reality (3) |
| Anthropology | 1163 | Disagreement, Difference, Diversity (3) |
| Anthropology | 2117 | Greek History \& Culture** (3) |
| Anthropology | 2120 | Native People of North America (3) |
| Art History | 1101 | Ideas in Art History (3) |
| Art History | 1102 | Art of Egypt and the Ancient Near and Middle East (3) |
| Art History | 1104 | Indigenous Arts of North America** (3) |
| Art History | 2212 | Greek Art and Archaeology (3) |
| Art History | 2213 | Roman Art and Archaeology (3) |
| Art History | 2214 | Early Christian and Byzantine Art (3) |
| Art History | 2225 | Medieval Art (3) |
| Art History | 2237 | Northern European Renaissance Art (3) |
| Art History | 2245 | Baroque Art and Architecture (3) |
| Art History | 2248 | Eighteenth Century European Art (3) |
| Art History | 2250 | Nineteenth Century European Art (3) |
|  |  |  |
|  |  |  |


| Art History | 2265 | History of Photography (3) |
| :---: | :---: | :---: |
| Art History | 2270 | American Art to 1876 (3) |
| Art History | 2272 | American Art since 1876 (3) |
| Art History | 2279 | American Architecture (3) |
| Art History | 2281 | Art since 1960 (3) |
| Biology | 1202 | Environmental Biology (3) |
| Biology | 1350 | Conservation of Biodiversity (3) |
| Business Administration | 1590 | Personal Finance (3) |
| Business Administration | 1900 | Introduction to Personal Law (3) |
| Business Administration | 2900 | Legal Environment of Business (3) |
| Chinese | 2191 | Special Topics in Chinese Literature (3) |
| Criminology \& Criminal Justice | 1110 | Theories of Crime (3) |
| Criminology \& Criminal Justice | 1120 | Criminal Law (3) |
| Criminology \& Criminal Justice | 1130 | Criminal J ustice Policy (3) |
| Criminology \& Criminal Justice | 1150 | Violence in America (3) |
| Criminology \& Criminal Justice | 1200 | Foundations of Law (POL SCI 1200) (3) |
| Criminology \& Criminal Justice | 2251 | Youth Gangs (3) |
| Criminology \& Criminal Justice | 2260 | Corrections (3) |
| Criminology \& Criminal Justice | 2265 | Capital Punishment (3) |
| Economics | 1000 | Introduction to the American Economy (3) |
| Economics | 1001 | Principles of Microeconomics (3) |
| Economics | 2010 | The Business Firm: History, Theory and Policy (3) |
| Economics | 2610 | The Economics of Professional Sports (3) |
| English | 1120 | Introduction to Literature (3) |
| English | 1200 | Myth (3) |
| English | 2280 | Contemporary World Literature** (3) |
| English | 2340 | Introduction to Drama (3) |
| Finance | 1590 | Personal Finance (3) |
| Gender Studies | 2230 | Psychology of Gender (3) |
| Geography | 2001 | Cultural Geography (3) |
| Gerontology | 2280 | Psychology of Death and Dying (3) |
| History | 1003 | African-American History*** (3) |
| History | 2102 | Introduction to Women's and Gender Studies (3) |
| History | 2117 | Greek History and Culture (3) |
| Honors | 1201 | Freshman Symposium: Cultural Traditions II (3) |
| Honors | 1230 | American Traditions*** (3) |
| Honors | 1310 | Non-Western Traditions Series -Humanities (3) |
| Honors | 1330 | Non-Western Traditions-Social Sciences (3) |
| Honors | 2310 | Cultural Diversity in the Humanities** (3) |
| Honors | 2330 | Cultural Diversity in the Social Sciences** (3) |
| J apanese | 2191 | Special Topics in J apanese Culture (3) |
| Media Studies | 1060 | Introduction to World Cinema (3) |
| Media Studies | 1110 | Introduction to Radio and Television Broadcasting (3) |
| Music History \& Literature | 1001 | Introduction to Music (3) |
| Music History \& Literature | 1010 | History of Western Music I (3) |
| Music History \& Literature | 1020 | History of Western Music II (3) |
| Music History \& Literature | 1080 | Introduction to Irish Traditional Music (3) |
| Music History \& Literature | 1090 | Non-Western Music I** (3) |

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| Music History \& Literature | 1110 | Introduction to Irish Traditional Music in North America (3) |
| :---: | :---: | :---: |
| Music History \& Literature | 1130 | Introduction to Music Theatre (3) |
| Music History \& Literature | 1140 | Popular Music in America (3) |
| Music History \& Literature | 1150 | Drumming Cultures of the World (3) |
| Music History \& Literature | 1160 | Musical Journey Through Latin America (3) |
| Music History \& Literature | 1170 | Musical J ourney Through the Far East (3) |
| Music History \& Literature | 1180 | Musical Journey Through Africa (3) |
| Music History \& Literature | 1190 | Musical Journey of the Native North American (3) |
| Music Theory \& Composition | 1301 | Theory of Music I (3) |
| Music Theory \& Composition | 1311 | Theory of Music II (3) |
| Music Theory \& Composition | 2301 | Theory of Music III (3) |
| Music Theory \& Composition | 2311 | Theory of Music IV (3) |
| Philosophy | 1090 | Telecourse: Philosophy and Other Disciplines (3) |
| Philosophy | 1091 | Telecourse: Significant Figures in Philosophy (3) |
| Philosophy | 1110 | Western Philosophy I (3) |
| Philosophy | 1111 | Western Philosophy II (3) |
| Philosophy | 1120 | Asian Philosophy ** (3) |
| Philosophy | 1125 | Islamic Philosophy** (3) |
| Philosophy | 1130 | Approaches to Ethics (3) |
| Philosophy | 1150 | Major Questions in Philosophy (3) |
| Philosophy | 1151 | Love 101 (3) |
| Philosophy | 1160 | Logic and Language (3) |
| Philosophy | 1180 | Science vs. God (3) |
| Philosophy | 1163 | Disagreement, Difference, Diversity (3) |
| Philosophy | 1185 | Philosophy of Religion (3) |
| Philosophy | 2251 | Sexual Ethics (3) |
| Philosophy | 2252 | Philosophical Foundations of Criminal Justice (CRIMIN 2252) (3) |
| Philosophy | 2253 | Philosophy and Feminism (3) |
| Philosophy | 2254 | Business Ethics (3) |
| Philosophy | 2255 | Environmental Ethics (3) |
| Philosophy | 2256 | Bioethics (3) |
| Philosophy | 2257 | Happiness and the Meaning of Life (3) |
| Philosophy | 2258 | Medicine, Values and Society (3) |
| Philosophy | 2259 | Engineering Ethics (3) |
| Philosophy | 2276 | Philosophy of Film (3) |
| Philosophy | 2280 | Minds, Brains and Machines (3) |
| Philosophy | 2283 | Markets and Morals (3) |
| Political Science | 1100 | Introduction to American Politics*** (3) |
| Political Science | 1200 | Foundations of Law (CRIMIN 1200) (3) |
| Political Science | 1500 | Introduction to Comparative Politics (3) |
| Political Science | 1550 | Women and Politics in the Developing World (3) |
| Political Science | 1800 | World Politics (3) |
| Political Science | 1990 | The City (3) |
| Psychology | 2205 | Human Sexuality: The Psychological Perspective (3) |
| Psychology | 2230 | Psychology of Gender (3) |
| Psychology | 2280 | Psychology of Death and Dying (3) |
| Psychology | 2285 | American Cultural \& Minority Mental Health (3) |
| Social Work | 2000 | Social Work and Social Problems (3) |


| Social Work | 2102 | Introduction to Women's and Gender Studies (3) |
| :--- | :--- | :--- |
| Social Work | 2200 | Social Welfare as a Social Institution (3) |
| Sociology | 1010 | Introduction to Sociology (3) |
| Sociology | 1040 | Social Problems (3) |
| Sociology | 1999 | The City (3) |
| Sociology | 2102 | Introduction to Women's and Gender Studies (3) |
| Theatre \& Dance | 2020 | Acting for the Camera (3) |
| Women \& Gender Studies | 2102 | Introduction to Women's and Gender Studies (3) |
| Women \& Gender Studies | 2253 | Philosophy \& Feminism (3) |

## GOAL \# 4 SOCI AL AND BEHAVI ORAL SCI ENCES KNOWLEDGE

The Social and Behavioral Sciences Knowledge Goal develops students' understanding of themselves and the world around them through the study of content and the processes used by historians and social and behavioral scientists to discover, describe, explain, and predict human behavior and social systems. Students must understand the diversities and complexities of the cultural and social world, past and present, and come to an informed sense of self and others (CBHE General Education, June 2000).

Students must complete a minimum of nine credit hours in the Social and Behavioral Sciences Knowledge area taken from the following list:
**satisfies cultural diversity requirement
***satisfies government requirement

| Department | Course \# | Course Title |
| :---: | :---: | :---: |
| Anthropology | 1005 | Introduction to Biological Anthropology (4) |
| Anthropology | 1006 | Introduction to Non-Human Primates (3) |
| Anthropology | 1011 | Introduction to Cultural Anthropology** (3) |
| Anthropology | 1019 | Introduction to Archaeology ** (3) |
| Antrhopology | 1021 | The Body in Culture (3) |
| Anthropology | 1025 | World Cultures** (3) |
| Anthropology | 1033 | World Archaeology** (3) |
| Anthropology | 1035 | Ancient Greek Civilization and Culture (3) |
| Anthropology | 1037 | The Wonders of Greece: Introduction to Greek History and Culture (3) |
| Anthropology | 1041 | Sex and Gender Across Cultures (3) |
| Anthropology | 1052 | The Olympic Games: Ideals and Reality (3) |
| Anthropology | 1163 | Disagreement, Difference, Diversity (3) |
| Anthropology | 2105 | Human Variation** (3) |
| Anthropology | 2117 | Greek History and Culture ( HIST 2117) (3) |
| Anthropology | 2120 | Native People of North America (3) |
| Anthropology | 2121 | Symbols in American Indian Culture (3) |
| Business Administration | 1900 | Introduction to Personal Law (3) |
| Communication | 1050 | Introduction to Mass Communication (3) |
| Criminology \& Criminal J ustice | 1100 | Introduction to Criminology and Criminal J ustice (3) |
| Criminology \& Criminal J ustice | 1110 | Theories of Crime (3) |
| Criminology \& Criminal J ustice | 1120 | Criminal Law (3) |
| Criminology \& Criminal J ustice | 1130 | Criminal J ustice Policy (3) |
| Criminology \& Criminal J ustice | 1150 | Violence in America (3) |
| Criminology \& Criminal J ustice | 2251 | Youth Gangs (3) |
| Criminology \& Criminal Justice | 2260 | Corrections (3) |
| Criminology \& Criminal J ustice | 2265 | Capital Punishment (3) |
| Economics | 1000 | Introduction to the American Economy (3) |


| Economics | 1001 | Principles of Microeconomics (3) |
| :---: | :---: | :---: |
| Economics | 1002 | Principles of Macroeconomics (3) |
| Economics | 1500 | Entertainment Economics: The Movie Industry (3) |
| Economics | 2010 | The Business Firm: History, Theory and Policy (3) |
| Economics | 2410 | The Economics of Women, Men and Work (3) |
| Economics | 2610 | The Economics of Professional Sports (3) |
| Economics | 2800 | History of American Economic Development (3) |
| Geography | 1001 | Introduction to Geography (3) |
| Gender Studies | 2230 | Psychology of Gender (3) |
| Geography | 1002 | World Regions (3) |
| Geography | 2001 | Cultural Geography (3) |
| Gerontology | 2280 | Psychology of Death and Dying (3) |
| History | 1001 | American Civilization to 1865*** (3) |
| History | 1002 | American Civilization I865-Present *** (3) |
| History | 1003 | African-American History*** (3) |
| History | 1004 | The History of Women in the United States*** (3) |
| History | 1030 | The Ancient World (3) |
| History | 1031 | Topics in European Civilization to 1715 (3) |
| History | 1032 | Topics in European Civilization since 1715 (3) |
| History | 1041 | East Asian Civilization to 1800** (3) |
| History | 1042 | East Asian Civilization from 1800** (3) |
| History | 1051 | Latin American Civilization** (3) |
| History | 1052 | Mexican Civilization** (3) |
| History | 1061 | African Civilization To 1800** (3) |
| History | 1062 | African Civilization Since 1800** (3) |
| History | 1075 | World History to 1500 (3) |
| History | 1076 | World History since 1500 (3) |
| History | 1175 | Arts \& Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN 1175, ART HS, 1175) (3) |
| History | 1776 | History of American Leadership (3) |
| History | 2102 | Introduction to Women's and Gender Studies (3) |
| History | 2117 | Greek History and Culture (3) |
| History | 2800 | History of Economic Development (3) |
| Honors | 1130 | Western Traditions--Social Science (3) |
| Honors | 1230 | American Traditions*** (3) |
| Honors | 1330 | Non-Western Traditions--Social Science (3) |
| Honors | 2030 | Honors Inquiries in Social and Behavioral Sciences (3) |
| Honors | 2330 | Cultural Diversity in the Social Sciences** (3) |
| Interdisciplinary | 1999 | Big History: From the Big Bang to the Blackberry (3) |
| Media Studies | 1050 | Introduction to Media Studies (3) |
| Philosophy | 1163 | Disagreement, Difference, Diversity (3) |
| Philosophy | 1180 | Science vs God (3) |
| Philosophy | 2251 | Sexual Ethics (3) |
| Political Science | 1100 | Introduction to American Politics*** (3) |
| Political Science | 1450 | Introduction to Labor Studies (3) |
| Political Science | 1500 | Introduction to Comparative Politics (3) |
| Political Science | 1550 | Women and Politics in the Developing World (3) |
| Political Science | 1800 | World Politics (3) |
| Political Science | 1820 | Global Issues (3) |


| Psychology | 1003 | General Psychology (3) |
| :--- | :--- | :--- |
| Psychology | 1268 | Human Growth and Development (3) |
| Psychology | 2205 | Human Sexuality: The Psychological Perspective (3) |
| Psychology | 2230 | Psychology of Gender (3) |
| Psychology | 2280 | Psychology of Death and Dying (3) |
| Psychology | 2285 | American Cultural \& Minority Mental Health (3) |
| Social Work | 2000 | Social Work and Social Problems (3) |
| Social Work | 2102 | Introduction to Women's and Gender Studies (3) |
| Social Work | 2200 | Social Welfare as a Social Institution (3) |
| Sociology | 1010 | Introduction to Sociology (3) |
| Sociology | 1040 | Social Problems (3) |
| Sociology | 2102 | Introduction to Women's and Gender Studies (3) |
| Women \& Gender Studies | 2102 | Introduction to Women's and Gender Studies (3) |

## GOAL \# 5 HUMANITIES AND FINE ARTS KNOWLEDGE

The Humanities and Fine Arts Knowledge Goal develops the students' understanding of the ways in which humans have addressed their condition through imaginative work in the humanities and fine arts; to deepen their understanding of how that imaginative process is informed and limited by social, cultural, linguistic, and historical circumstances; and to appreciate the world of the creative imagination as a form of knowledge (CBHE General Education, June 2000).

Students must complete a minimum of nine credit hours from the Humanities and Fine Arts Knowledge area taken from the following list:
**satisfies cultural diversity requirement

| Department | Course \# | Course Title |
| :---: | :---: | :---: |
| Anthropology | 1163 | Disagreement, Difference, Diversity (3) |
| Art History | 1100 | Introduction to Western Art (3) |
| Art History | 1101 | Ideas in Art History (3) |
| Art History | 1102 | Art of Egypt and the Ancient Near and Middle East (3) |
| Art History | 1104 | Indigenous Arts of North America** (3) |
| Art History | 1105 | Introduction to the Arts of Africa (3) |
| Art History | 1108 | Introduction to Arts of Asia (3) |
| Art History | 1175 | Arts \& Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN 1175, ART HS, 1175) (3) |
| Art History | 2211 | Art and Archeology of the Ancient World (3) |
| Art History | 2212 | Greek Art and Archaeology (3) |
| Art History | 2213 | Roman Art and Archaeology (3) |
| Art History | 2214 | Early Christian and Byzantine Art (3) |
| Art History | 2225 | Medieval Art (3) |
| Art History | 2235 | European Art and Architecture 1300-1800 (3) |
| Art History | 2237 | Northern European Renaissance Art (3) |
| Art History | 2240 | French Art and Architecture 1400-1715 (3) |
| Art History | 2245 | Baroque Art and Architecture (3) |
| Art History | 2248 | Eighteenth Century European Art (3) |
| Art History | 2250 | Nineteenth Century European Art (3) |
| Art History | 2255 | Modern Art** (3) |
| Art History | 2265 | History of Photography (3) |
| Art History | 2270 | American Art to 1876 (3) |
| Art History | 2272 | American Art since 1876 (3) |
| Art History | 2279 | American Architecture (3) |


| Art History | 2281 | Art since 1960 (3) |
| :---: | :---: | :---: |
| Chinese | 2191 | Special Topics in Chinese Culture (3) |
| English | 1120 | Introduction to Literature (3) |
| English | 1130 | Topics in Literature (3) |
| English | 1170 | American Literary Masterpieces (3) |
| English | 1175 | Arts \& Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN 1175, ART HS, 1175) (3) |
| English | 1200 | Myth (3) |
| English | 1700 | African-American Literature (3) |
| English | 1710 | Native American Literature (3) |
| English | 1950 | Topics in Literature (3) |
| English | 2030 | Poetry Writing (3) |
| English | 2040 | Short Story Writing (3) |
| English | 2120 | Topics in Writing (3) |
| English | 2240 | Literature of the Old Testament (3) |
| English | 2250 | Literature of the New Testament (3) |
| English | 2280 | Contemporary World Literature (3) |
| English | 2310 | English Literature Before 1790 (3) |
| English | 2320 | English Literature II (3) |
| English | 2330 | Introduction to Poetry (3) |
| English | 2340 | Introduction to Drama (3) |
| English | 2710 | American Literature Before 1865 (3) |
| English | 2720 | American Literature After 1865 (3) |
| Foreign Language | 2100 | Languages and World View (3) |
| French | 2170 | Intermediate French Language and Culture II (3) |
| French | 2180 | Readings in French (3) |
| German | 2170 | Intermediate Practice in Speaking and Writing German (3) |
| German | 2180 | Intermediate Readings in German(3) |
| Honors | 1110 | Western Traditions (3) |
| Honors | 1111 | Western Cultural Traditions and Critical Thinking (3) |
| Honors | 1200 | Freshmen Symposium: Cultural Traditions I (3) |
| Honors | 1201 | Freshman Symposium: Cultural Traditions II (3) |
| Honors | 1210 | American Traditions in Humanities (3) |
| Honors | 1310 | Non-Western Traditions Series Humanities** (3) |
| Honors | 1900 | Independent Cross-Cultural Readings (1-3) |
| Honors | 2010 | Inquiries in the Humanities (3) |
| Honors | 2020 | Inquiries in the Fine and Performing Arts (3) |
| Honors | 2310 | Cultural Diversity in the Humanities** (3) |
| Interdisciplinary | 1999 | Big History: From the Big Bang to the Blackberry (3) |
| J apanese | 2102 | Intermediate J apanese II (5) |
| J apanese | 2150 | Classical J apanese Literature in Translation (3) |
| J apanese | 2191 | Special Topics in J apanese Culture (3) |
| Media Studies | 1060 | Introduction to World Cinema (3) |
| Media Studies | 1070 | Introduction to Cinema (3) |
| Media Studies | 1110 | Introduction to Radio and Television Broadcasting (3) |
| Media Studies | 2271 | History of American Film (3) |
| Media Studies | 2272 | Contemporary Cinema (3) |
| Music History \& Literature | 1001 | Introduction to Music (3) |
| Music History \& Literature | 1010 | History of Western Music I (3) |


| Music History \& Literature | 1020 | History of Western Music II (3) |
| :---: | :---: | :---: |
| Music History \& Literature | 1060 | Introduction to African-American Music (3) |
| Music History \& Literature | 1070 | Introduction to J azz (3) |
| Music History \& Literature | 1080 | Introduction to Irish Traditional Music (3) |
| Music History \& Literature | 1090 | Non-Western Music I (3) |
| Music History \& Literature | 1110 | Introduction to Irish Traditional Music in North America (3) |
| Music History \& Literature | 1130 | Introduction to Music Theatre (3) |
| Music History \& Literature | 1140 | Popular Music in America (3) |
| Music History \& Literature | 1150 | Drumming Cultures of the World (3) |
| Music History \& Literature | 1160 | Musical Journey Through Latin America (3) |
| Music History \& Literature | 1170 | Musical Journey Through the Far East (3) |
| Music History \& Literature | 1175 | Arts \& Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN 1175, ART HS, 1175) (3) |
| Music History \& Literature | 1180 | Musical Journey Through Africa (3) |
| Music History \& Literature | 1190 | Musical Journey of the Native North American (3) |
| Music Theory \& Composition | 1301 | Theory of Music I (3) |
| Music Theory \& Composition | 1311 | Theory of Music II (3) |
| Music Theory \& Composition | 2301 | Theory of Music III (3) |
| Music Theory \& Composition | 2311 | Theory of Music IV** (3) |
| Philosophy | 1090 | Telecourse: Philosophy and Other Disciplines (3) |
| Philosophy | 1091 | Telecourse: Significant Figures in Philosophy (3) |
| Philosophy | 1110 | Western Philosophy I (3) |
| Philosophy | 1111 | Western Philosophy II (3) |
| Philosophy | 1120 | Asian Philosophy** (3) |
| Philosophy | 1125 | Islamic Philosophy** (3) |
| Philosophy | 1130 | Approaches to Ethics (3) |
| Philosophy | 1150 | Major Questions in Philosophy (3) |
| Philosophy | 1151 | Love 101 (3) |
| Philosophy | 1160 | Logic and Language (3) |
| Philosophy | 1163 | Disagreement, Difference, Diversity (3) |
| Philosophy | 1175 | Arts \& Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN 1175, ART HS, 1175) (3) |
| Philosophy | 1185 | Philosophy of Religion (3) |
| Philosophy | 2252 | Philosophical Foundations in Criminal Justice (CRIMIN 2252) (3) |
| Philosophy | 2253 | Philosophy and Feminism (3) |
| Philosophy | 2254 | Business Ethics (3) |
| Philosophy | 2255 | Environmental Ethics (3) |
| Philosophy | 2256 | Bioethics (3) |
| Philosophy | 2257 | Happiness and the Meaning of Life (3) |
| Philosophy | 2258 | Medicine, Values and Society (3) |
| Philosophy | 2259 | Engineering Ethics (3) |
| Philosophy | 2276 | Philosophy of Film (3) |
| Philosophy | 2280 | Minds, Brains and Machines (3) |
| Philosophy | 2283 | Markets and Morals (3) |
| Spanish | 2171 | Spanish Conversation and Pronunciation (3) |
| Spanish | 2172 | Spanish Composition (3) |
| Spanish | 2180 | Readings in Spanish |
|  |  | Arts \& Ideas (HIST 1175, M H L T 1175, PHIL 1175, TH DAN |


| Theatre \& Dance | 1175 | 1175, ART HS, 1175) (3) |
| :--- | :--- | :--- |
| Theatre \& Dance | 1210 | Fundamentals of Acting (3) |
| Theatre \& Dance | 1800 | Introduction to Theatre 1 (3) |
| Theatre \& Dance | 1850 | Introduction to Non-Western Theatre (3) |
| Theatre \& Dance | 2020 | Acting for the Camera (3) |
| Theatre \& Dance | 2105 | Script Analysis (3) |
| Theatre \& Dance | 2211 | Acting Styles (3) |
| Theatre \& Dance | 2810 | History of World Theatre and Drama Through the Restoration <br> (3) |
| Theatre \& Dance | 2820 | The History of World Theatre \& Drama from 18th Century to <br> Contemporary Times (3) |
| Theatre \& Dance | 2840 | History of Dance to the 19th Century (3) |

## GOAL \# 6 MATHEMATI CS AND LIFE/ NATURAL SCI ENCES KNOWLEDGE

The Mathematics and Life/Natural Sciences Knowledge Goal develops students' abilities in the areas of mathematics and sciences. In mathematics, the goal develops the students' understanding of fundamental mathematical concepts and their applications. Students should develop a level of quantitative literacy that would enable them to make decisions and solve problems and which could serve as a basis for continued learning. To meet this goal, students must have one mathematics course that has the same prerequisite(s) and level of rigor as college algebra. In the life and natural sciences, this goal develops the students' understanding of the principles and laboratory procedures of life and physical sciences and to cultivate their abilities to apply the empirical methods of scientific inquiry. Students should understand how scientific discovery changes theoretical views of the world, informs our imaginations, and shapes human history. Students should also understand that science is shaped by historical and social contexts (CBHE General Education, June 2000). Students must complete a minimum or twelve credit hours in the Mathematics and Life/ Natural Sciences Knowledge area.

Note: All students are required to earn a $C$ - or better in a college-credit mathematics course (MATH $\mathbf{1 0 2 0}$ or higher meets this requirement at UMSL), or achieve a score of $\mathbf{2 6}$ or higher on the Missouri Math Placement Test. Students should check the current schedule of courses for more details regarding math proficiency and placement.

| Department | Course \# | Course Title |
| :--- | :--- | :--- |
| Anthropology | 1005 | Introduction to Biological Anthropology (4) |
| Astronomy | 1001 A | Cosmic Evolution/ Introductory Astronomy ( without lab) (3) |
| Astronomy | 1001 | Cosmic Evolution/ Introductory Astronomy ( with lab) (4) |
| Astronomy | 1011 | Planets and Life in the Universe (3) |
| Astronomy | 1012 | The Violent Universe and the New Astronomy (3) |
| Astronomy | 1050 | Introduction to Astronomy I (3) |
| Astronomy | 1051 | Introduction to Astronomy II (3) |
| Astronomy | 1121 | The Search for Extraterrestrial Life (3) |
| Atmospheric Science | 1001 A | Elementary Meteorology (without lab) (3) |
| Atmospheric Science | 1001 | Elementary Meteorology (with lab) (4) |
| Biology | 1012 | General Biology (3) |
| Biology | 1013 | General Biology Laboratory (2) |
| Biology | 1102 | Human Biology (3) |
| Biology | 1131 | Human Anatomy and Physiology I (4) |
| Biology | 1141 | Human Anatomy and Physiology II (4) |
| Biology | 1162 | General Microbiology (3) |
| Biology | 1202 | Environmental Biology (3) |
| Biology | 1350 | Conservation of Biodiversity (3) |
| Biology | 1811 | Introductory Biology I: From Molecules to Organisms (5) |
| Biology | 1821 | Introductory Biology II: Organisms and the Environment (5) |
|  |  |  |
|  |  |  |


| Biology | 1999 | Evolution for Everyone (3) |
| :---: | :---: | :---: |
| Chemistry | 1011 | Chemistry in the Environment and Everyday Living (3) |
| Chemistry | 1052 | Chemistry for Health Professions (4) |
| Chemistry | 1062 | Organic and Biochemistry for Health Professions (2) |
| Chemistry | 1111 | Introductory Chemistry I (5) |
| Chemistry | 1121 | Introductory Chemistry II (5) |
| Chemistry | 2223 | Quantitative Analysis (3) |
| Chemistry | 2612 | Organic Chemistry (3) |
| Chemistry | 2622 | Organic Chemistry II (3) |
| Chemistry | 2633 | Organic Chemistry Laboratory (2) |
| Chemistry | 3412 | Basic Inorganic Chemistry (2) |
| Geology | 1001A | General Geology (without lab) (3) |
| Geology | 1001 | General Geology (with lab) (4) |
| Geology | 1002A | Historical Geology (without lab) (3) |
| Geology | 1002 | Historical Geology (with lab) (4) |
| Honors | 2050 | Inquiries in the Natural Sciences (3) |
| Honors | 2051 | Inquiries in the Sciences: Laboratory or Field Work (1) |
| Interdisciplinary | 1999 | Big History: From the Big Bang to the Blackberry (3) |
| Mathematics | 1020 | Contemporary Mathematics (3) |
| Mathematics | 1021 | Choice and Chance (3) |
| Mathematics | 1030 | College Algebra (3) |
| Mathematics | 1035 | Trigonometry (2) |
| Mathematics | 1100 | Basic Calculus (3) |
| Mathematics | 1102 | Finite Mathematics (3) |
| Mathematics | 1105 | Basic Probability and Statistics (3) |
| Mathematics | 1150 | Structure of Mathematical Systems (3) |
| Mathematics | 1800 | Analytic Geometry and Calculus I (5) |
| Mathematics | 2510 | Structure of Mathematical Systems II (3) |
| Philosophy | 1021 | Choice and Chance(3) |
| Physics | 1001 | How Things Work (3) |
| Physics | 1011 | Basic Physics I (4) |
| Physics | 1012 | Basic Physics II (4) |
| Physics | 2111 | Physics: Mechanics and Heat (5) |
| Physics | 2112 | Physics: Electricity, Magnetism and Optics (5) |

## Credit Hours

All candidates for baccalaureate degrees must complete a minimum of 120 semester hours. At least 45 of these hours must be courses numbered 2000 or above (or comparable courses transferred). Students must maintain a minimum 2.0 grade point average overall, as well as in their area of specialization. Students seeking two degrees must meet all degree and residency requirements of each degree.

## Other Requirements

## Mathematical Skills

Proficiency in the basic mathematical skills area should be satisfied before the student completes $\mathbf{2 4}$ hours of course work. Proficiency can be obtained in either of the following ways.

Completing, with a grade of C- or better, a college degree credit mathematics course. Scoring 26 or higher on the Missouri Math Placement Test (MMPT). The MMPT covers mathematics through the college algebra level.
*The first two college credit mathematics courses that the university offers which satisfy mathematics proficiency are MATH 1020: Contemporary Mathematics and MATH 1030: College Algebra. MATH 1020 is designed as a terminal mathematics course for students who do not plan to take calculus. MATH 1030 is
required for all students who want to go on to calculus. The prerequisite for enrolling in MATH 1020 or MATH 1030 is a satisfactory score on the math placement test. This test must be taken not earlier than six months before enrolling in the course.

Study guides for the UMSL Math Placement Test and the MMPT (as well as the UMSL Trigonometry Test, which is not needed for minimum math proficiency) are available on the university's home page, under math placement information/math practice test, as well as at the circulation desk of the Thomas Jefferson Library (file number 991). Students will need to make their own copies. Math placement test dates are published in the Schedule of Courses and on the math placement website.

## Advanced Expository Writing

Effective fall semester 1985, students must also complete ENGL 3100, Advanced Expository Writing, or its equivalent, with a grade of C - or above.

## American History and Government

Students must satisfactorily complete a course or courses in American history or government taken at UMSL or at other colleges or universities in Missouri. Transfer students should check with the dean's office of their division to find out if they have fulfilled this requirement.

The requirement may be satisfied by one of the following courses:
CRIMIN 1100, Introduction to Criminology and Criminal Justice (Criminology majors may not use this course to satisfy the state requirement.)
ECON 2800, History of American Economic Development (3)
HIST 1001, American Civilization I (3)
HIST 1002, American Civilization II (3)
HI ST 1003, African-American History (3)
HIST 1004, The History of Women in the United States (3)
HIST 2007, The History of Missouri (3)
HIST 2800, History of American Economic Development (3)
HI ST 3002, United States History (3)
POL SCI 1100, Introduction to American Politics (3)
POL SCI 2260, Law, Politics and Society (3)
POL SCI 2280, Judicial Politics and Policy (3)
POL SCI 2290, Gender and the Law (3)
POL SCI 2300, State Politics (3)
POL SCI 2320, African Americans and the Political System (3)
POL SCI 2350, Introduction to Urban Politics (3)
POL SCI 2380, The Politics of Gender in the United States (3)
POL SCI 2400, Public Administration (3)
POL SCI 2420, Introduction to Public Policy (3)
POL SCI 3200, Constitutional Law (3)
POL SCI 3210, Civil Liberties (3)
POL SCI 3260, The Supreme Court (3)
POL SCI 3300, The American Presidency (3)
POL SCI 3330, Introduction to Political Behavior (3)
POL SCI 3331, Congressional Politics (3)
POL SCI 3350, Political Parties and Elections (3)
POL SCI 3450, Urban Administration (3)
POL SCI 4460, Urban Planning and Politics (3)

## 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 This requirement may be met by one of the following courses:

ANTHRO 1011, Introduction to Cultural Anthropology (3)
ANTHRO 1019, Introduction to Archaeology (3)
ANTHRO 1021, The Body in Culture (3)
ANTHRO 1025, World Cultures (3)
ANTHRO 1033, World Archaeology (3)
ANTHRO 1041, Sex and Gender Across Cultures (3)
ANTHRO 1051, Anthropology of Sport (3)
ANTHRO 1091, Introductory Topics in Anthropology (3)
ANTHRO 2111, Cultures of East Asia (3)
ANTHRO 2114, Cultures of the Near and Middle East (3)
ANTHRO 2120, Native Peoples of North America (3)

ANTHRO 2123, Cultures of Oceania (3)
ANTHRO 2124, Cultures of Africa (3)
ANTHRO 2131, Archaeology of Missouri (3)
ANTHRO 2132, Archaeology of North America (3)
ANTHRO 2134, Archaeology of the Inca, Aztec, and Maya (3)
ANTHRO 2135, Old World Archeology (3)
ANTHRO 2138, African-American Archaeology (3)
ANTHRO 2173, Archaeology and Cultures of the Biblical World (3)
ANTHRO 2191, Special Topics in Non-Western Cultures (3)
ANTHRO 3235, Women in Subsaharan Africa: A Contemporary Perspective (3)
ART HS 1102, Art of Egypt and the Ancient Near and Middle East (3)
ART HS 1104, Indigenous Arts of North America (3)
ART HS 1105, Introduction to the Arts of Africa (3)
ART HS 1108, Introduction to Asian Art (3)
ART HS 4408, Topics in Asian Art (3)
ENGL 2280, Contemporary World Literature (3)
CHI NESE 2150, Chinese Literature in Translation (3)
FGN LANG 2100, Languages and World View (3)
GEOG 2001, Cultural Geography (3)
HIST 1041, East Asian Civilization (3)
HIST 1042, East Asian Civilization (3)
HI ST 1051, Latin American Civilization (3)
HIST 1061, African Civilization To 1800 (3)
HIST 1062, African Civilization Since 1800 (3)
HI ST 1064, The African Diaspora since 1800 (3)
HIST 2032, Modern China: 1800 to the Present (3)
HIST 2053, Modern Mexico (3)
HI ST 2062, West Africa Since 1800 (3)
HI ST 2063, African Diaspora to 1800 (3)
HIST 2064, African Diaspora Since 1800 (3)
HI ST 3202, History of Latin America since 1808 (3)
HONORS 1330, Honors Non-Western Traditions (3)
HONORS 2310, Cultural Diversity in the Humanities (3)
HONORS 2330, Cultural Diversity in the Social Sciences (3)
J APANESE 2150, Classic J apanese Literature in Translation (3)
J APANESE 2191, Special Topics in J apanese Culture (3)
M H L T 1090, Non-Western Music I (3)
M H LT1100, Drumming Cultures of the World (3)
M H LT 1160, Musical J ourney Through Latin America (3)
M H L T 1170, Musical J ourney Through the Far East (3)
M H L T 1180, Musical J ourney Through Africa (3)
M H L T 1190, Musical J ourney Through of the North American (3)
PHIL 1120, Asian Philosophy (3)
PHIL 1125, Islamic Philosophy (3)
POL SCI 1500, Introduction to Comparative Politics (3)
POL SCI 1550, Women and Politics in the Developing World (3)
POL SCI 2520, Middle Eastern Politics (3)
POL SCI 2530, Political Systems of South America (3)
POL SCI 2540, Political Systems of Mexico, Central America, and the Caribbean (3)
POL SCI 2550, East Asian Politics (3)
POL SCI 2580, African Politics (3)
SOC WK 2330, Asians in Migration (3)
POL SCI 4520, Mega-Cities and Diasporas: Understanding Global Migration (3) TH DAN 1850, Introduction to Non-Western Theatre (3)

## Reserve Officers Training Courses

Only MIL SCI 4101 and MIL SCI 4102 may receive degree credit in Arts and Sciences and the College of Fine Arts and Communication. All other Military Science courses receive no credit and they are not counted in the student's grade point average.

## Graduate Study

UMSL Home

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 (a) they do not meet admission standards, (b) there are no available openings, or (c) 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 (a) a baccalaureate or advanced degree from an accredited institution of higher education, (b) an undergraduate grade point average (GPA) and major field GPA of at least 2.75 , (c) an acceptable score on each requisite examination, and (d) 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 DegreeSeeking 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 NonDegree 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 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 NonDegree 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.

## I nter-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 Services. Phone 314-516-5229; Fax 314-516-5636; e-mail:
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.

Applicants from other countries shall provide a summary of their educational experience as a basis of comparison of their backgrounds with those of U.S. applicants. They must also provide materials required to obtain an appropriate visa, including a statement of their financial situation and the anticipated form of support for the period of graduate study.

## 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.

## 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 reenrollment 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 gradfuate 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.

## 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 (or from the third through the sixth week of the summer 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 $F$.

## 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;

$$
\begin{aligned}
& A=4.0 \\
& A-=3.7 \\
& B+=3.3 \\
& B=3.0 \\
& B-=2.7 \\
& C+=2.3 \\
& C=2.0 \\
& C-=1.7 \\
& F=0 \\
& F N=0 \\
& E X=\text { Excused } \\
& D L=\text { Delayed } \\
& I P=\text { In Progress } \\
& S / U=A \text { or } B \text { equivalent }
\end{aligned}
$$

The satisfactory/unsatisfactory (S/U) option, which is an option for undergraduate students, is not normally available in courses for graduate credit. S/U grades may be given only for thesis, dissertation, specific internships, practica, or project courses as requested by a program, 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.

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. Although delayed grades do not affect a graduate student's grade point average, they are an important factor in evaluating academic progress. Delayed grades must be removed within two regular semesters after the time recorded or they automatically become F grades. In such cases, course instructors may subsequently change F grades to other grades on their progress in a sequential course
and indicate that a grade will be assigned at the end of the sequence. Some programs assign the Delayed Grade for dissertations or theses in progress. Students must complete all Delayed grades to be approved to graduate.

## Failure/ Non participation

When students do not complete any graded assignments but do not oficially 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 includes 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 GPA includes only the grades of those courses that are part of the degree program. The Degree Program or certificate GPA must be at least 3.0 for a student to receive a graduate degree.

## 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.

## 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 in a minimum of nine credit hours are placed on probation. A program may also place a student on probation if it regards 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. Multidisciplinary 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: (a) No more than one-third of the credit hours required by either program may be applied to both programs; (b) 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 to 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 to a doctoral or Ed.S. degree in another program provided (a) they apply no more than two-thirds of the master's degree courses to their doctoral degree program; (b) they have been admitted to the master's degree program; and (c) 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.

## Filing the Degree Program Plan

A master's degree student shall filewith the Graduate School a program plan approved by the program director before completing the first 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 master's degree informs the Graduate School of (a) the number of times the program will allow its students to take a comprehensive examination, and (b) 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.

## Application for Master's Degree

To receive the master's degree, students who have met all degree requirements must apply for graduation by the end of the fourth week of classes during the fall or spring term or by the first day of the eight-week session during the summer term.

## 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 (a) the number of times the program will allow its students to take a comprehensive examination, and (b) 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:

1. A pre-candidate is a student who has requirements to fulfill in addition to the dissertation, including course work, and/or comprehensive examinations.
2. 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 (a) the number of times the program will allow its students to take a comprehensive examination, and (b) 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 $11 / 2$ 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.

## Fees for Graduate Study

## UMSL Home

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. The total per-credit-hour fee rate includes tuition, mandatory fees, and course fees. Detailed Information on tuition and fee rates and residency status can be found on the Cashier's website.

## Financial Responsibility

Each semester, a Financial Responsibility agreement will be presented to all students. The agreement explains the billing methods, payment options and all policies related to student accounts. It is the student's responsibility that fees are paid and other financial obligations are met as they become due regardless of who is making the payments. Students who need assistance in meeting their financial obligations 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, fee reassessment dates and office policies are posted on the Cashier's website and through links on the eBill website. The non-payment of any financial obligation may result in additional collection fees and holds on students' registration, records, or graduation.

## 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 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 student system to make payment using a personal checking or savings account or a MasterCard, Discover, or American Express credit card. (2.75\% service charge applied to credit card payments) VISA credit cards are NOT accepted.

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.

Payment Kiosks - Payment from a personal checking or savings account or by MasterCard, Discover, or American Express credit card can be made at any of the four payment kiosks located in the MSC. (2.75\% service charge applied to credit card payments) VISA credit cards are NOT accepted.

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 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. 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.

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. 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 - Credit balances resulting from the disbursement of Parent-Plus Loans will be refunded directly to the parent. The refund check is mailed to the address on file for the parent unless written instruction is submitted by the parent to the Cashier's Office authorizing the student to receive the funds.

Credit Card Refund - If a credit card payment has been made towards your student account in the past 60 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. 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. Fees reassessed may include Tuition (Educational Fee), Student Activity and Health Fee, Information Technology Fee, Special Course Fee (if applicable), and Parking Fee (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.

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 cancelled 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 cancelled student will be placed at the end of the course wait list.

Any student who has been administratively cancelled for nonpayment of assessed fees may not enroll in a class unless the required fees have been paid and the student has officially re-registered. 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 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.

## UMSL Home

## Academic Resources

## The Writing Lab

The Writing Lab offers free tutorial assistance to students working on papers for their classes. No appointment is necessary, and tutors are prepared to help both undergraduate and graduate students in all the disciplines. Issues covered in the lab include organization, sentence clarity, development, grammar, and usage.

## English-as-a-Second Language

The English-as-a-Second Language (ESL) program provides assessment and supplementary ESL courses for international students. Courses are listed under Languages and Cultures Department.

## Mathematics Lab

The Math Lab offers individual assistance on a walk-in basis to students needing help with any mathematics from basic math through calculus or mathematical skills required for a course in another discipline. Students or prospective students who are preparing to take the Mathematics Placement Test or C-Base Exam may come to the lab for help. Review materials for the C-Base Exam are also available on general reserve in the Thomas Jefferson Library. Test dates and practice math placement exams are available from the Department of Mathematics and Computer Science.

The Math Lab also offers a three-credit hour (not toward a degree) course in Intermediate Algebra and a zerocredit workshop in Beginning Algebra as semester-long lecture classes or independent study courses with flexible beginning and ending options. Schedules for the courses can be found in the current Schedule of Courses in MyView.

## Campus Testing Center

The Campus Testing Center provides a controlled environment for students to take make-up exams or to test under conditions where special accommodations are needed and authorized by the Office of Disability Access Services. Students unable to take campus-level exams (e.g. Math Placement) during regularly scheduled group sessions may take them in the center for a fee. All testing is by appointment by calling 314-516-6396 or emailing assessctr@umsl.edu.

## Cashier's Office

The Cashier's Office helps students and their families meet their financial obligations to the university. The office produces accurate and timely invoices to collect and process payments, issue refunds, and to ensure that funds are deposited without delay. Staff are available in person at 285 Millennium Student Center, by phone at (314) 516-5151, or my email at umslcash@umsl.edu for inquiries about student accounts.

## Distance Learning

## Campus Support Offered Online

As a service to its students, most of whom do not live close to campus, UMSL offers several services online or by phone. Online services for registration, fee-payment, testing, advising/financial aid, book sales, and administrative support are services offered through the university's integrated systems, MyView. Before a student is admitted, MyView allows candidates to apply online, explore the course catalog, and access online services, including MyGateway. The student portal on MyGateway lists links to tools that students often need, including links for an enrollment certification letter, class schedule, DARS report, e-bill student account, e-mail forwarding address, creating a friendly e-mail address, accessing grades and GPA, online testing appointments, registration times, and both the online and telephone registration systems. Advising links include academic advising, academic calendars, choosing a major, the Bulletin, course schedules, final exam schedule, and policies. Library holdings are also available through technology. Students can conduct reference searches via telecommunications, and entire texts of an increasing number of periodicals are now available online.

## MyGateway

The lines between on-campus and off-campus learning is blurring as UMSL faculty increasingly use technology
to communicate with students. Most classes at UMSL use MyGateway, whether students take the class on campus, online, or at an off-campus site. Tutorials are available on the campus's Information Technology Services website.

## Off-Campus Classes

Because of the campus's close relations with community colleges, schools, businesses, agencies, and hospitals in the region, some programs are offered at these sites for students' convenience. Most courses in off-campus programs have an instructor on site, but sometimes courses are delivered with technology at the same time (synchronously) as courses on campus. This allows students across the region to take class together without having to drive long distances. Course locations are included in the class schedule available to students and the public on MyView.

## Online Education

UMSL's online courses and programs are offered asynchronously through MyGateway. The majority of courses require some on-campus activities, so students must consult the schedule of courses for any on-campus requirements.

## Faculty Senate and University Assembly

The Faculty 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.

## I nstitutional Safety (Police)

The mission of the University of Missouri-St. Louis police department is to work cooperatively with the university community and within the framework of the Constitution, enforce the laws, preserve the peace, and provide a safe environment for the campus.

The police department is an internationally accredited department committed to professional management and to providing services in a manner that is responsive to community concerns. We pledge to be sensitive to the needs of those it serves.

The police department, located in the Campus Police Building serves the students, faculty, and staff by providing year-round dedicated police service to the campus community. The police officers are trained to give emergency aid in the event of accident or illness. All incidents should be reported immediately to the police department, telephone by calling 314-516-5155. All campus phones are programmed to connect directly to the police department when dialing 911. The police department and dispatch center operate 24 hours a day. Emergency telephones on campus include the red A Hot-Line phones, which are located in many buildings. In addition, there are a number of outdoor emergency blue phones that connect directly to the police dispatcher.

All members of the campus community are strongly encouraged to call the police for an escort if they feel uncomfortable walking to their car at night. For information regarding this and other services, contact the police by calling 314-516-5155. Students are encouraged to add the campus police phone number (314-5165155) to their cell phones in case of emergencies on campus.

## Parking and Transportation

Parking enforcement and issuing faculty, staff and guest permits is the responsibility of the Parking and Transportation Department These permits may be obtained at the Parking and Transportation office, located at 7700 Florissant Road. Information on traffic regulations, parking, and campus maps can be obtained at the Parking and Transportation's web site.

Parking and Transportation provides limited emergency vehicle service (due to dead battery, empty fuel tank, flat tire, etc.), at no charge, to vehicles on campus. Any person requiring such service should call 314-5165155.

## Career Services

Career Services assists students and recent graduates with planning, creating, implementing and evaluating
career development and job search strategies by working in partnership with employers and the campus community.

Career Readiness/Coaching, Career Counseling \& Exploration and other programs are available to all degree seeking students and recent graduates of UMSL. Career Services hours are Monday through Thursday, 8 a.m. to $5: 30 \mathrm{p} . \mathrm{m}$. and Friday, 8 a.m. to 5:30 p.m. For more information, call (314) 516-5111, or visit 278 Millennium Student Center.

## Career Readiness/ Coaching

Make an appointment with a Career Services Coordinator to get assistance in your job search. A professional is available to assist in guiding students and alumni in the job search for internships/co-ops and full-time degree-related positions.

## Career Counseling \& Exploration

Meet with a staff member to evaluate your career development. Career development services are designed to help you with choosing a major and/or career. We offer career assessments, on-line resources and individual assistance to guide you in your career decision-making. Visit the Career Services website to access a variety of job search related information. Click on the Occupational Outlook Handbook to get job outlook information, access " What can I do with this major?" to help connect majors with careers, review salary survey information, and link to numerous job search related links.

## Job Leads

We have a web-based software system that enables students and alumni to conduct a job search on-line 24/7. You will have access to job leads (internships, co-op, part-time degree-related and full-time degree-related positions), on-campus interview opportunities and resume referrals to employers. To be activated in this system, click on UMSLCareerKey at the Career Services website. General, non-degree-related employment opportunities that are received in Career Services are available on the Career Services website under "Off Campus Opportunities."

## On-Campus Jobs

Career Services assists students with connecting to on-campus job opportunities (jobs posted through the federal work-study program and jobs posted by individual departments that are open to all students).

## Job Fairs

Career Services holds three annual job fairs: UMSL Fall Internship \& J ob Fair (for all majors); UMSL Spring Internship \& J ob Fair in the Spring Semester (for all majors); UMSL Teacher Job Fair (for teaching candidates). Admission is free to UMSL students/alumni who pre-register.

## Weekly Workshops

Register on-line for workshops related to the job search process, including Resume Writing, Interviewing Skills, and Job Search Strategies.

## Special Programs

Other special programs are held throughout the year. This includes Classroom \& Student Organization Presentations, Etiquette Banquet, and Job Search Strategies Teacher Panel.

## I nternship/ 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 5165111, 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 4325-4329, 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
BI OL 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 J ustice
CRI MI N 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/ 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 3295, Selected Projects in Field Placement - elective, for credit.
PSYCH 3390, Research Assistant.

## Social Work

SOC WK 4800 and 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
BUS AD 3090, Internship in Business Administration
BUS AD 3289, Internship Practicum in International Business
BUS AD 3990, Internship in Business Law

FI NANCE 3590, Internship in Finance
I NFSYS 3890, Internship in Management Information Systems
LOG OM 3390, Internship in Logistics \& Operations Management
MGMT 3690, Internship in Management
MKTG 3790, Internship in Marketing

## 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 1193, Practicum in Applied Communication
COMM 4393, Internship in Applied Communication
Media Studies
On-campus positions, as available:
MEDI A ST 1194, Practicum In J ournalism
MEDI A ST 1195, Practicum In Advertising
MEDI A ST 1196, Practicum In Radio
MEDI A ST 1197, Practicum In Television/Film
MEDI A ST 1198, Practicum in Media Studies
Elective for credit, Senior standing, 3.0 GPA, and faculty recommendation required; off-campus positions:
MEDI A ST 3394, Internship in J ournalism
MEDI A ST 3395, Internship in Advertising
MEDI A ST 3396, Internship in Radio
MEDI A ST 3397, Internship in Television/Film
MEDIA ST 3398, Internship in Media Studies
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.
J oint Engineering Program
UMSL/Washington University J oint 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.

## Alumni Association

The Alumni Association sponsors several scholarships for UMSL students, provides special funding for campus projects, and works as an organization to obtain increased public support for the university. Membership in the Alumni Association is open to all graduates and former students with payment of modest dues. For more information, call 314-516 5833.

## UMSL Libraries

## UMSL Home

## University Libraries Home Page

Christopher R. Dames, Dean of Libraries
M.S., University of Missouri-St. Louis
M.L.S., Kent State University

Marilyn L. Rodgers, Associate Dean of Libraries
Reference Leadership Team
M.A.L.S., University of Missouri-Columbia

Clinton Berry, Reference Librarian
M.A., University of Missouri-St. Louis;
M.A.L.S., University of Missouri-Columbia

Christopher Daniel, Acquisitions Librarian,
M.A.L.S., University of Missouri-Columbia

Mary Doran, Reference Librarian
M.L.S., University of California-Los Angeles

Julie Dunn-Morton, Curator, Fine Arts Collection,
M.A., University of Delaware;

Ph.D., University of Delaware
J udith Friedrich, Technical Services Librarian
M.A.L.S., University of Missouri-Columbia

Nicholas Fry, Curator, Barriger Library
M.A., Historical Studies, University of Maryland, Baltimore County
M.S.L.I.S., Drexel University

John N. Hoover, Director, St. Louis Mercantile Library, Associate Director of Libraries for Special Collections
M.A., Southern Illinois University-Edwardsville
M.A.L.S., University of Missouri-Columbia;

Raleigh Muns, Reference Librarian
M.L.S., University of California-Los Angeles

Timothy Nelson, Acquisitions Librarian,
M.Div., Chicago Theological Seminary;
M.L.S., University of Missouri-Columbia

Christopher Niemeyer, Reference Librarian
M.L.I.S., University of Texas at Austin

David Owens, Head, Technical Services
M.A.L.S., University of Missouri-Columbia

Janis Peach, Head of Collections/Acquisitions
M.S., University of Illinois-Urbana-Champaign

Frances Piesbergen, Reference Leadership Team / Serials Acquisitions / Barnes Leadership Team M.A.L.S., University of Missouri-Columbia

Karen Robinson, Reference Librarian, SISLT,
M.A., Regent University;
M.L.S., Emporia State University

Lindsay Schmitz, Reference Librarian/ Government Documents,
M. A., Southern Illinois University-Edwardsville;
M.S., University of Illinois-Urbana-Champaign

Paul Sharpe, Head of Access Services / Barnes Leadership Team
M.L.I.S., University of Denver

Helen Shaw, Reference Librarian
M.Ed., University of Illinois Champaign;
M.A.L.S., University of Missouri Columbia

Sean Visintainer, Curator, Pott Library
M.A., I.S.L.T., University of Missouri-Columbia

Betsy Williams, Reference Librarian
M. S., University of Illinois-Urbana-Champaign

The University Libraries support the educational objectives of the university and meet the teaching, research,
and informational needs of the campus community. Housed in three locations-the Thomas Jefferson Library and the St. Louis Mercantile Library at UMSL (north campus) and the Ward E. Barnes Library (south campus)-the Libraries' collections consist of more than one million volumes, 3,000 periodical subscriptions, 1.2 million U.S. government documents, over 1.3 million items in microform, and numerous special and manuscript collections. In addition, patrons have access to over 70,000 full-text online journals.

Twenty-one million items from the libraries of the four campuses of the University of Missouri, as well as the other institutions belonging to the MOBIUS consortium, can be identified in the MERLIN/MOBIUS online catalogs. Through the MERLIN/MOBIUS catalogs, users can request items from other institutions to be transferred to UMSL for check-out. A full range of services, including interlibrary loan, reference assistance, library instruction and access to a large number of databases are also available through the Libraries

State Historical Society of Missouri Research Center-St. Louis (formerly the Western Historical Manuscript Collection) and University Archives

William M. (Zelli) Fischetti,Assistant Director, State Historical Society of Missouri Research Center-St. Louis and University Archives
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Nancy Mcl Ivaney, Manuscript Specialist, State Historical Society
M.A., University of Missouri-St. Louis

The State Historical Society of Missouri Research Center-St. Louis, formerly the Western Historical Manuscript Collection, contains primary source materials for research in many fields including local history, the environment, labor history, women's history, politics, and black history. The collection is open to the university community and the general public. Material from the other three campus WHMC collections may be borrowed for research use at UMSL. A catalog of the holdings of the other branches is available.

The University Archives contain official records, campus publications, student newspapers, photographs, and other material on the history of the University of Missouri-St. Louis. Located on Level 2 in the Thomas Jefferson Library, the office is open for reference service Monday through Friday, 8 a.m. to 4:45 p.m. and until 9 p.m. on Tuesday. Archival and manuscript material does not circulate.

# BULLETIN <br> University of Missouri - St. Louis 

## UMSL Home

## Army ROTC Home Page <br> Air Force ROTC Home Page

Students interested in Reserve Officer Training Corps programs may enroll in either the Army ROTC program at UMSL or the Air Force ROTC program sponsored at UMSL through Saint Louis University. These programs provide undergraduate and graduate students with the opportunity to combine academic study with a military officer training program.

For further information concerning the Army ROTC program, contact the Military Science Department, telephone 314-516-7681 or check out our ROTC Website. For information on the Air Force ROTC program, contact the Aerospace Science Department at Saint Louis University, telephone 977-8227

## Army ROTC

The purpose of the Military Science Department is to develop young men and women into junior commissioned officers for positions of responsibility in the Army Reserve, Army National Guard, or Active Army.

## Benefits

Army ROTC offers UMSL students:

1) A challenging, important, well paid job at graduation in one of the many professional fields that the modern Army has to offer. Army officers serve in such fields as intelligence, military police, communications, engineering, transportation management, finance, combat arms, hospital administration, nursing, and research and development. Starting salary with allowances of an active duty second lieutenant is approximately $\$ 43,000$. Within four years he/she should be promoted to captain with a salary and allowances of nearly $\$ 73$. Reserve officers attend one weekend per month and an annual two week training camp.
2) College financing. All advance course and Army ROTC scholarship students receive \$300-500/month stipend. Only scholarship students receive $\$ 1200$ per year for books and supplies. Also, advance course students may join the Reserves as an office trainee and receive pay while in college.
3) Full-time enrolled students may compete for the Army ROTC scholarship. The scholarship pays full tuition and mandatory fees plus $\$ 1,200.00$ per year for books and supplies.
4) Option of two careers. Upon graduation and commissioning as officers in the U.S. Army, students may fulfill their obligation by serving on active duty or reserve duty. Reserve officers spend one weekend a month being a soldier. Officers who serve on active duty receive 30 days paid vacation every year, free medical and dental care, travel, and the opportunity to pursue advanced degrees with educational assistance from the Army on a fully funded or partially funded basis.

## The Program

College students who complete the ROTC program earn commissions as second lieutenants in the U.S. Army. The ROTC program may be completed in several different ways as outlined below.

1) Four Year Program. The military science program is traditionally offered as a four year program. It is best to start as a freshman, but special arrangements can be made for those who start as sophomores. The first two years of military science are voluntary without service obligation, and are designed to give students a perspective on their leadership ability and what the Army can offer them. The student who decides to continue in ROTC and pursue a commission signs an agreement with the Department of the Army to accept a commission upon completion of the last two years of military science. In return the Army agrees to provide a subsistence allowance ( $\$ 9,600$ ) and to provide all necessary uniforms and military science books.
2) Two Year Program. The two year program is designed to provide greater flexibility in meeting the needs of students desiring commissions in the U.S. Army. UMSL students who did not participate in the four year program and junior college transfer students are eligible for enrollment. Basic prerequisites for entering the
two year program are:
A) The students must be in good academic standing (minimum 2.0 GPA) and pass an Army medical examination.
B) The student must have two academic years of study remaining (undergraduate, graduate, or combination). The student will attend a four week Leaders Training Course to catch up with the students in the four year program. Attendance at the basic camp does not obligate the student in any way and is only intended to give the student a look at Army life and opportunities. The student will be paid approximately $\$ 750$ for attendance at basic camp.

## Veterans

Veterans of any of the armed forces may qualify for advanced placement and should contact the Military Science Department for details.

## Scholarships

The Army ROTC currently has scholarships in effect, which pay full tuition and mandatory fees plus $\$ 1,200.00$ per year for books and supplies, and provide $\$ 300-500 /$ month for the academic year. These scholarships cover either four, three, or two years. UMSL freshmen and sophomores should apply in January for the two- and three year scholarships. Scholarship students may incur a four year active duty obligation; however, they may request reserve duty to serve with the Army National Guard or Reserve.

## Qualifications

All students who desire to enter the Army Reserve Officer Training Corps must be U.S. citizens, in good physical condition, and have high moral character. Students must be at least 17 years old to enroll and not over 34 when they receive their commission. If the student will be older than 39 at the time of earning a degree, it is possible to be accepted into Army ROTC with a waiver. Additional qualifications to be admitted into the advanced course include an academic average of $C$ or better and passing an Army medical examination.

## Academics

UMSL Army Reserve Officers Training Corps academics consist of two parts:

1) Earning a degree in the student's chosen academic subject.
2) Completing 22 credit hours (four year program) or 12 credit hours (two year program) of the military science curriculum. The courses in military science are college level academic courses which receive full academic credit toward the student's elective degree requirements in the College of Business Administration and the College of Education. The curriculum consists of classroom instruction and a leadership laboratory in which students receive leadership experience.

## Leadership Laboratory

Leadership laboratory is required of all students enrolled in military science courses. Classes are two hours every Thursday afternoon from 4 p.m. to 6 p.m., unless otherwise designated. In addition, students attend one field training exercise each semester. Leadership laboratory develops individual military skills and leadership ability through participation in drill and ceremonies, survival training, mountaineering, field training exercises, and exposure to progressively greater responsibilities within the Cadet Corps organization.

## Graduate Study

Officers who have been admitted to law school, medical school, or a master's program in divinity may postpone active duty to continue graduate study. Students who are accepted into medical school may take up to four years to complete their studies. There are numerous opportunities for an officer to complete a master's degree in service and receive financial assistance from the Army.

## Special Training

Selected volunteers may attend one of several special schools during the summer: the Airborne Course at Fort Benning, GA; Air Assault School at Fort Campbell, KY; or the Northern Warfare School in Alaska or Vermont. Successful course completion earns the coveted badge (such as the jump wings or air assault wings) associated with each school. Special cadet troop leadership training is available on a limited basis. Students participating in the program live and work with an active Army unit during part of one summer.

## Cadet Activities

Army ROTC students may participate in many extracurricular activities during the year. Social activities include the Army Military Ball, picnics, and informal parties. Army ROTC students also support various campus and community service activities. Interested students also participate in the Drill Team, Color Guard, Air Rifle Team, and Ranger Challenge Team.

## Course Descriptions

## Military Science

MI L SCI 1101 Introduction to Leadership I (3)
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 MSL 1101 does not require a commitment to join the US Army. (FALL ONLY).

## MIL SCI 1102 Introduction to Leadership II (3)

Prerequisite: Completion of MIL SCI 1101 or consent of instructor. 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 MSL 1102 does not require a commitment to join the US Army. (SPRING ONLY)

## MI L SCI 2201 Innovative Team Leadership (3)

Prerequisite: Completion of MIL SCI 1101 or consent of instructor.
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 MSL 2201 does not require a commitment to join the US Army. (FALL ONLY)

## MI L SCI 2202 Foundations of Tactical Leadership (3) <br> 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 MS $\mathbf{2 2 0 2}$ does not require a commitment to join the US Army. (SPRI NG ONLY).

## MI L SCI 3301 Adaptive Team Leadership (3)

Prerequisites: Successful completion of MS 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)

Prerequisite: 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).

## MI L SCI 4401 Adaptive Leadership (3)

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).

## MI L SCI Leadership in a Complex World (3)

Prerequisite: MIL SCl 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).

MI L SC 4411 Advanced Military Science Studies 5 (3)
Prerequisites: MIL SCI 4401 or permission of instructor. An in-depth study of the role of the officer in the United States Army.

## MI L SC 4412 Advanced Military Science Studies 6 (3)

Prerequisites: MIL SCI 4401 or permission of instructor. A study of how the United States Army officer develops the leadership traits necessary to lead soldiers into battle.

MI L SC 4413 Military Medical Technologies Independent Study (3)
Prerequisites: MIL SCI 4402. 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.

## Air Force ROTC

The objective of the Air Force Reserve Officer Training Corpsis to qualify students for appointment as active duty second lieutenants in the United States Air Force. However, any student may enroll in the freshman/ sophomore level aerospace studies courses, and students may also enroll in the junior/senior level courses with permission of the professor of aerospace studies.

UMSL offers the two and four year AFROTC programs through an agreement with Saint Louis University. The four year program is tailored for students with three or more years of undergraduate studies remaining. Students with junior standing or above may apply for entry into the two year program. Entry into the two year program is competitive and is based on standardized test scores, academic major, grade point average, physical examination, personal interview with the professor of aerospace studies, and successful completion of a summer field training session at an Air Force base. Applicants must be full time students and must remain in good academic standing.

## Reserve Officer Training Corps

The AFROTC Program is divided into the general military course (GMC), the freshman/sophomore level curriculum; and the professional officer course (POC), the junior/ senior level curriculum. The GMC covers two main themes; the Air Force today and the Air Force way. The courses of the POC emphasize the professional development of the future Air Force officer. The curriculum covers Air Force leadership and management and preparation for active duty. Field trips to Air Force bases supplement classroom instruction and familiarize the cadet with Air Force operations and organization.

## To be commissioned, AFROTC students/ cadets must:

1) Pass a medical exam at a military medical facility.
2) Obtain a favorable evaluation on an Armed Forces personal history security investigation.
3) Flying applicants must complete commissioning requirements before age $261 / 2$, and nonflying applicants must complete commissioning requirements by age 30 . However, the age limit for nonflying applicants may be extended to age 35 for outstanding individuals.
4) Be of good character (as determined by a favorable record with law enforcement authorities).
5) Successfully complete all AFROTC course requirements.
6) Complete at least a baccalaureate degree.

Air Force ROTC textbooks are loaned to all AFROTC students without charge. Students in the POC will receive a monthly subsistence allowance of $\$ 150$ per month for a maximum of 20 months, an Air Force uniform, in excess of $\$ 700$ for the summer field training course, and a travel allowance to and from the training location.

In addition to the AFROTC courses offered for academic credit, the Aerospace Studies Department sponsors the Arnold Air Society and Angel Flight. Arnold Air Society is a national honorary service organization, and membership is open to anyone interested in bringing to the local community a better understanding of the Air Force mission and its leaders.

AFROTC field training is offered during the summer months at selected bases throughout the United States, usually between a student's sophomore and junior years. Students in the four year program participate in four weeks of field training. Major areas of study include junior officer training, aircrew/aircraft orientation, career orientation, survival training, base functions and Air Force environment, and physical training. Students applying for entry into the two year program must successfully complete six weeks of field training prior to enrollment in the professional officer course. The major areas of study included in the six week field training program are essentially the same as those conducted at four week field training, plus the academic curriculum of the general military course including leadership laboratory. POC cadets are eligible for a \$1,000 per semester federal AFROTC scholarship.

Leadership Laboratory is taken once per week throughout the student's enrollment in AFROTC. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop each student's leadership potential. Leadership laboratory involves a study of Air Force customs and courtesies, drill and ceremonies, career opportunities in the Air Force, and the life and work of an Air Force junior officer. It also includes field trips to Air Force installations throughout the United States.

Other training volunteers may attend various special cadet training programs such as light aircraft training, parachute jump training, and advance cadet training. Students participating in the latter work with an Air Force unit during part of the summer.

The Air Force offers four , three , and two year scholarships to qualified students. These scholarships pay tuition, certain fees, and textbook cost. Scholarship recipients receive $\$ 150$ per month subsistence allowance. For further information on the Air Force ROTC program at UMSL, call (314) 977 8227, or at Southern Illinois University at Edwardsville (SIUE), call (618) 6923180.

## Aerospace Studies

The Aerospace studies program is divided into two parts: the general military course, the freshman/sophomore level curriculum, and the professional officer course, the junior/senior level curriculum. The GMC covers two main themes: the Air Force today and the Air Force way. The courses of the POC emphasize the professional development of the future Air Force officer. The curriculum covers Air Force leadership and management and preparation for active duty. Field trips to Air Force bases supplement classroom instructions and familiarize the cadet with Air Force operations and organizations.

Leadership laboratory is taken two hours per week throughout the student's enrollment in the AFROTC. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop each student's leadership potential. The first two years of the leadership laboratory includes a study of Air Force customs and courtesies, drill and ceremonies, issuing military commands, instructing, directing and evaluating the preceding skills, studying the environment of an Air Force officer and learning about areas of opportunity available to commissioned officers. The last two years of lab consist of activities classified as advanced leadership experiences. They involve planning and controlling military activities of the cadet corps, preparation and presentation of briefings and other oral and written communications, and providing interviews, guidance, and information which will increase the understanding, motivation, and performance of other cadets.

AFROTC cadets must also successfully complete supplemental courses to enhance their utility and performance as commissioned officers. These include university courses in English composition and mathematical reasoning. Specific courses are designated by the professor of aerospace studies.

Cadets in the four year program participate in four weeks of field training. Cadets in the two- or three- year programs (exception for prior AF service) must attend the six-week FT session, which is identical to the fourweek program plus 90 hours of GMC curriculum. Field training is offered during the summer months at selected bases throughout the United States, usually between a student's sophomore and junior years. Major areas of study include Air Force orientation, officer training, aircrew/aircraft orientation, survival training, base functions, and physical training.

Students applying for entry into the two- or three- year program must successfully complete six weeks of field training prior to enrollment in the professional officer course. The major areas of study included in the sixweek field training program are essentially the same as those conducted at four week field training, plus the academic curriculum of the general military course including leadership laboratory. No direct academic credit is awarded for field training.

Federal scholarships are available for AFROTC cadets--any academic major may apply. Applications are to be submitted by detachment personnel to Headquarters Reserve Officers Training Corps, Maxwell Air Force Base, AL.

Participation in AFROTC is not required to take aerospace courses.

## Lower Division (General Military)

Aerospace studies courses (AERO 1001 through AERO 1002) are basic courses designed to acquaint students with the United States Air Force and the opportunities available as an officer. Grades earned in these courses will be computed in the student's overall grade point average, but credit hours for these courses will not be included in the total hours for graduation.

## Course Descriptions

## AERO 1001/ 1002 The Air Force Today (2)

A survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. Leadership Laboratory is mandatory for AFROTC cadets, and it complements this course by providing students with followership experiences. Classroom activity, two hours per week; Leadership Laboratory two hours per week, each semester.

AERO 2001/ 2002 The Air Force Way (2)
Survey course designed to facilitate the transition from Air Force ROTC cadet to Air Force ROTC candidate. Featured topics include: Air Force heritage, Air Force leaders, Quality Air Force, an introduction to ethics and
values, introduction to leadership, group leadership problems, and continuing application of communication skills. Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with their first opportunity for applied leadership experiences discussed in class. Classroom activity, two hours per week; Leadership Laboratory two hours per week, each semester.

## Upper Division(Professional Officer) Courses

Aerospace Studies courses AERO 3001 through AERO 4002 are advanced courses designed to improve communication and management skills required of Air Force officers. Credit hours of these courses may be included in the hours needed for graduation at the discretion of individual departmental chairpersons.

## AERO 3001/ 3002 Air Force Leadership and Management (3)

The study of leadership and quality management fundamentals, professional knowledge, Air Force doctrine, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. A mandatory leadership laboratory complements this course by providing advanced leadership experiences in officer type activities, giving students the opportunity to apply leadership and management principles of this course. Classroom activity, three hours per week; Leadership Laboratory two hours per week, each semester.

## AERO 4001/ 4002 Preparation For Active Duty (3)

Examines the national security process, regional studies, advanced leadership ethics, Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. An additional Leadership Laboratory complements this course by providing advanced leadership experiences, giving students the opportunity to apply leadership and management principles of this course. Classroom activity, three hours per week; Leadership Laboratory two hours per week, each semester.

## Field Training

Field Training provides leadership and officership training in a military environment, which demands conformity to high physical and moral standards. Within this structured environment, cadets are screened for officer potential as measured against field training standards. Motivation and professional development is achieved through various programs such as flight orientation, marksmanship, and survival training. Students in the four year program participate in four weeks of field training. Field training is offered during the summer months at selected bases throughout the United States, usually between a student's sophomore and junior years. Major areas of study include: Air Force Orientation, Officer Training, aircrew/aircraft orientation, survival training, base functions and physical training.

## Division of Student Affairs

## UMSL Home

## Office of the Vice Provost for Student Affairs Home Page

## Office of the Vice Provost for Student Affairs

The Office of the Vice Provost for Student Affairs, located in 301 Woods Hall 314-516-5211, offers assistance and a wide variety of services to students. The office is responsible for administering the Student Conduct Code, confidentiality of student records, and the Discrimination Grievance Procedure for Students as well as all of the student service operations below.

## Admissions

The Office of Admissions is located in 351 Millennium Student Center, 314-5165451. The Admissions Office is generally the first point of contact for information and assistance with planning for the college decision process. The Office of Admissions arranges tours of campus, sponsors open houses throughout the year for both firsttime freshmen and transfers, and processes admission applications. Prospective students and families as well as applicants can arrange to meet personally with admission counselors. Counselors will provide information on applying for financial aid and scholarships, placement tests, and new student orientation.

## Athletics

## I ntercollegiate Sports

The Tritons 314-516-5661 compete at the NCAA Division II level and are members of the Great Lakes Valley Conference. The women's intercollegiate athletic program includes basketball, soccer, tennis, volleyball, golf, and softball. The men's intercollegiate athletic program includes basketball, soccer, golf, baseball, and tennis. Scholarships are available for both men and women in all sports. Both men's and women's athletic teams have brought both local and national recognition to the university for more than 20 years, with one national championship and numerous trips to the NCAA Tournament in several sports. UMSL students with validated IDs are admitted free to all home athletic contests.

## Recreational Sports

Campus Recreation 314-516-5125 provides students, faculty, staff, and alumni with recreational sports programs geared toward the interests of the entire university community. Current intramural activities include touch football, basketball, volleyball, racquetball, golf, tennis, bowling, softball, hoc soc, fun run, soccer, indoor floor hockey, and weight lifting. The office encourages the campus community to suggest additional sports.

## Facilities

The athletic and exercise areas in the Mark Twain Building 314-516-5641 are available for use by the university community at specified hours. During the regular semester, the building is open seven days a week and on specified evenings. Facilities include basketball, volleyball, badminton, and handball/racquetball courts, an aerobic dance room, and an NCAA regulation swimming pool. The facilities also include two conditioning and fitness rooms with stateあfظeart equipment, an indoor running track suitable for walking or running, and a sauna. Outdoor facilities include baseball, softball, soccer, intramural fields, and tennis courts.

## Career Services

Career Services assists students and recent graduates with planning, creating, implementing and evaluating career development and job search strategies by working in partnership with employers and the campus community.

A professional is available in 278 Millennium Student Center or by phone 314-516-5111 to guide students and recent graduates in the job search for internships/co-ops and full-time degree-related positions.

Career development services are designed to help students choose a major and/or career. The Career Services website includes a wealth of job outlook and salary information and links to numerous job search sites. UMSLCareerKey provides students access to job leads (please see Internships for information on internships,
co-op, and part-time degree-related positions), on-campus interview opportunities, and resume referrals to employers.

Career Services holds annual internship \& job fairs with free admission to UMSL students/alumni who preregister.

## Center for Student Success

The Center for Student Success, located in Room 225 Millennium Student Center 314-516-5300 promotes the collegiate success of students by providing quality programs and services that advance students' academic achievement, educational goals, career development and adjustment to the university. We encourage students to assume responsibility for their decisions as they move toward their goals. The Center strives to continually improve our collaborative relationships with the campus community and the quality of service provided to all students. College students face many challenges unique to their college academic experiences and will certainly have questions or concerns. The Center is committed to helping students deal with academic concerns, connect to campus resources and meet educational goals.

## Disability Access Services

Located in 144 Millennium Student Center, Disability Access Services 314-516-6554 voice or 314-516-5212 for TDD provides information, guidance, referral services, and assistance for students with disabilities.

## Provisions for Auxiliary Aids, Reasonable Accommodations, and other Services to Students with Disabilities

Since the University of Missouri is committed to equal educational opportunities for qualified students without regard to disabling condition, the university will take necessary action to ensure that no qualified student with a disability is denied access to any particular course or educational program. Such action includes an assessment of the student's abilities and an evaluation of the requirements of the particular course or program.

If the University determines that some type of auxiliary aid is required, it will assist the qualified student in obtaining the necessary auxiliary aid from other sources. If the necessary auxiliary aid is not available from other sources, the university, at its option, will provide the necessary appropriate auxiliary aid.

Requests for the assessments must be made to the Program Coordinator of Disability Access Services no later than six weeks prior to the beginning of the next semester. Decisions may be appealed by following the Discrimination Grievance Procedure in the Student Planner.

The University will make reasonable modifications to its academic requirements, if necessary to comply with legal requirements ensuring that such academic requirements do not discriminate or have the effect of discriminating on the basis of a student's known and adequately documented disability, unless the requested modification would require alteration of essential elements of the program or essential elements of directly related licensing requirements or would result in undue financial or administrative burdens. The divisional dean's office, in cooperation with the Program Coordinator of Disability Access Services and the department through which the requirement is fulfilled, will determine the appropriate modification or substitution.

## Multicultural Relations

The Office of Multicultural Relations (MCR), provides comprehensive student development and educational services to our campus' diverse student population. MCR is committed to creating a strong sense of community amongst students, faculty, and staff that personifies respect, accountability and acceptance of all individuals. Students in all academic disciplines are encouraged to utilize the support services offered in MCR. Comprehensive services offered to students include personalized academic support and coaching, tutoring, mentoring, leadership development, social and cultural experiences, professional development and networking. All services by professional staff are strategically developed to retain and promote student degree completion.

We invite you to visit our office located on north campus at 190 Millennium Student Center. It is our mission to excel in providing quality practices and services. You may contact us for additional information at 314.516.6807.

## Student Financial Aid

The Office of Student Financial Aid is located in 327 Millennium Student Center 314-5165626. The staff assists students with applying for financial aid, including scholarships, grants, loans, and work study. In addition to regular business hours, the office is open during the evening (Mondays - Thursdays) to accommodate both day and evening students. Appointments are not necessary.

To apply for aid, students must complete a Free Application for Federal Student Aid (FAFSA). Around mid-April, Student Financial Aid will begin awarding federal, state, and institutional funds to new students who have been admitted, completed the FAFSA, and we have received their official Student Aid Report (SAR) from the Federal

Processing Center. Returning UMSL students can expect to receive their financial aid awards around mid to late June

To be considered for all UMSL scholarships, students must be accepted for admission and have completed an UMSL scholarship application. There are separate forms for incoming freshmen and continuing students.

The Student Financial Aid website has useful information, including a scholarship directory that is updated biweekly. Some departments also have scholarships for their majors, so students should contact those departments for the specific information.

## Registrar/ Registration/ Records

The Office of the Registrar, located in 269 Millennium Student Center, 314-516-5545 is responsible for registration, academic records, grades, transcripts, enrollment verification, veteran certification, change of name and/or address, ordering diplomas, and many other enrollment related services. No appointment is needed for service, and hours are convenient for both day and evening students.

## Degree Audit

The Degree Audit office, 225 Millennium Student Center, 314-516 6814, provides an automated record (DARS report) that reflects a student's progress toward degree completion. This report is very useful in planning a major, tracking graduation requirements, and investigating other areas of study. DARS reports are available online or from a student's academic adviser, who will assist in the interpretation of the audit.

## Office of Residential Life

Located in 101A Provincial House 314-516-6877, the Office of Residential Life and Housingoffers contracts for 9 and 12 months for on-campus housing year-round in air-conditioned, furnished residence halls, in which 93 percent of rooms are singles. Residence Hall rates include all utilities, local phone service, cable, combination refrigerator and microwave, data communications hook-ups, and a tax-exempt declining-balance meal plan. The halls also offer a large swimming pool as well as laundry facilities, kitchenettes, common TV lounges, and the free campus shuttle.

For students who are at least 21 years of age, Mansion Hill Condominiums and University Park Apartments offer one-and two-bedroom unfurnished apartments. The complex is on the free campus shuttle route and offers swimming pool, picnic areas, recreation areas, and laundry facilities with rent billed to students' university account. Students interested in living in upper-class housing should contact the apartment coordinator at 314-524-9446.

As one of the most active and visible student organizations on campus, the Residence Halls Association (RHA) serves as the student voice for residence hall students, providing leadership opportunities and activities both on- and off-campus. Residential students are active in intramurals, student organizations, campus leadership positions, and other university activities. Tours of the UMSL residence halls are available by calling 314-5166877.

## Office of Student Life

The Office of Student Life (OSL), 366 Millennium Student Center 314-516 5291, advises and serves as a facilitator for programs and services provided to student organizations at the University of Missouri St. Louis. OSL sponsors a diverse series of educational, cultural, recreational, and social programs, services, and activities that complement the academic mission of the campus and attend to developmental needs of students at UMSL.

More than 100 student organizations at UMSL ranging in size from 13 to 500 members, address the educational, cultural, social, recreational, and spiritual co-curricular needs of the campus community. Social fraternities and sororities, performing and fine arts, academic clubs, curriculum related support groups, and other special interest clubs enhance the collegiate experience. Information regarding student organizations is available in 366 Millennium Student Center. Specific organizations may be contacted by mail through the same address.

## University Program Board

The University Program Board, a volunteer group, initiates and implements a variety of lectures and performances by comedians and musical groups throughout the year. The board also sponsors games, tournaments, and discounted tickets for local sporting events, concerts, and theater. Most campus events are free to the campus community and are subsidized by student activity fees. Membership in this organization is open to students who are interested in coordinating these types of programs.

## Student Government Association

The Student Government Association (SGA) of the University of Missouri St. Louis, housed in 366 Millennium Student Center, 314-51651105, is the student governance body composed of both elected student representatives from each school and college and organizational representatives from every recognized student organization that petitions for representation. 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 policy making and governance body of the university.

## University Bookstore and Triton Tech

The University Bookstore 314-516-5763 is the headquarters for textbooks, reference materials, general reading books, supplies, gifts, Triton gifts and numerous logo items. Triton Tech, located in the bookstore, offers discounted software and hardware. In addition, UPS shipping services are available, as well as fax services and free notary service. Each year the bookstore sponsors special events such as Annual Fashion Show, Book Signings, Student Appreciation, Book Buy Back at the end of each semester, and more. All profits from the bookstore support operating expenses of the Millennium Student Center.

## University Health, Wellness, and Counseling Services (UHWCS)

UHWCS provides services to students, faculty and staff from a holistic perspective to assist students in maintaining their optimum level of wellness so that they are able to achieve their maximum academic potential. The UHWCS receptionist arranges appointments via calls (314-516-5671) or drop-in visits at 131 Millennium Student Center. In an emergency, students can usually be seen immediately. UHWCS services are organized into three major areas: Health Services, the Wellness Resource Center, and Counseling Services.

## Health Services

Health Services staff offer the following services: Treatment of minor injury and acute illness, treatment of many chronic conditions, written prescription for medication when appropriate for treatment, screening exams, immunizations, strep throat testing, pregnancy testing, well women's exams (including Pap smear), birth control, flu shots, urinalysis, lab work as indicated for assessment, and allergy injections. Assistance with referral to medical facilities is provided upon request and when necessary. Students and employees may call (314-516-5671) or visit 131 MSC to schedule an appointment.

## Student Accident and Sickness I nsurance (optional for U.S. citizens): 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.I mmunizations: The university requires that all newly enrolled or readmitted students born after 1956 comply with the two dose MMR(Measles, Mumps, Rubella combined) policy. If a second immunization is needed it must be the combined MMR vaccine. Meningococcal vaccine is required for students residing in campus housing. Tuberculosis (TB) screening is required for students in the following categories: lived for two months or more in Asia, Africa, Central or South America, Eastern Europe; health care workers, volunteers and employees of nursing homes, prisons or other residential institutions; or contact with a person known to have active tuberculosis. Proof of immunizations (copies of immunization records) should be submitted to UHWCS in 131 MSC. The immunization policy and form on the Health Services website.

## Wellness Resource Center

The Wellness Resource Center (WRC) offers information and referral sources on a variety of health related issues including women's health, alcohol and drug prevention, and smoking cessation. The campus Partners in Prevention program is coordinated through this office. The WRC sponsors a variety of engaging outreach programs each semester directed toward promoting choices for coping and healthy choices for optimum wellness. In addition individual and group education and support are available on diabetes, smoking cessation, health risk appraisal, and nutrition. Educational materials on a variety of health related topics are available.

## Counseling Services

Counseling Services provides personal counseling, consultation, psycho-educational workshops and presentations to classes and student groups. We take the confidentiality of your contacts with us very seriously. Except for the case of very extreme situations, both the content of counseling sessions and the fact that a student or employee has used our services are kept strictly confidential.

Personal Counseling can help students navigate through times of stress and/or overcome barriers to success. Some of the common issues for which students seek counseling include stress/anxiety, depression, low selfesteem, relationship or family issues, grief/loss, eating disorders, sexual assault, and a history of abuse.

Student groups and faculty are invited to call Counseling Services 314-516-5711 for speakers on such topics as test anxiety, assertiveness, healthy relationships, dealing with difficult people, personality styles, etc.

## Welcome Center

The Welcome Center ( 257 MSC, across from the Bookstore) is the hospitality center of the campus. Staff answer questions and provide directions to all campus offices. The center also serves as the tour headquarters for prospective students and contains information from all departments, colleges, and offices. The Welcome Center welcomes all visitors to UMSL.

# International Studies and Programs 

## UMSL Home

International Studies and Programs

## Faculty

J oel Glassman, Associate Provost, Academic Affairs and Associate Professor of Political Science. Director Ph.D., University of Michigan
Adeniyi Coker, The E. Desmond Lee Professor in African and African American Studies and Professor of Theatre
Ph.D., Temple University
Michael Cosmopoulos, The Hellenic Government-Karakas Family Foundation Professor in Greek Studies and Professor of Archaeology
Ph.D., Washington University in St. Louis
Hung-Gay Fung, The Dr. Y.S. Tsiang Professor in Chinese Studies and Professor of Finance
Ph.D., Georgia State University
Laura Miller, The Eiichi Shibusawa-Seigo Arai Professor in Japanese Studies and Professor of Anthropology Ph. D., University of California, Los Angeles
E. Wendy Saul, The Dr. Allen B. and Mrs. Helen S. Shopmaker Professor in Education in cooperation with Springboard and Professor for Education
Ph.D., University of Wisconsin-Madison
Eamonn Wall, The Smurfit-Stone Corporation Professor in Irish Studies and Professor of English
Ph.D., City University of New York

## General Information

International Studies and Programs 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.

International Studies and Programs 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, I rish 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. International Studies and Programs Study Abroad Office administers those programs.

## Office of I nternational 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.

## Undergraduate Certificate Programs

International Studies and Programs 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:

1) At least one course in two of the following areas a total of nine credit hours:

Area 1: Anthropology<br>ANTHRO 2124, Cultures of Africa

Area 2: Art and Art History
ART HS 1105, Introduction to The Arts of Africa
Area 3: History
HIST 1061, African Civilization to 1800
HIST 1062, African Civilization Since 1800
Area 4: Political Science
POL SCI 2580, African Politics
2) One course from each of the following areas, a total of six credit hours:

Area 1: Anthropology<br>ANTHRO 3235, Women in Sub-Saharan Africa: A Contemporary Perspective

Area 2: History
HIST 2062, West Africa Since 1800
3) An independent study course (three credit hours) in which a research paper will be written on some aspect of one of the fields offered in the program.

Option II. African Diaspora Studies

1) One course from each of the following areas, a total of six credit hours.

Area 1: Africa
Anthropology
ANTHRO 2124, Cultures of Africa
History
HIST 1061, African Civilization to 1800
HIST 1062, African Civilization Since 1800
Area 2: Diaspora
Anthropology
ANTHRO 1005, Introduction to Biological Anthropology

## History

HIST 1003, African-American History
HIST 1064, The African Diaspora Since 1800
HI ST 2016, African-American History: From Slavery to Civil Rights
HIST 2017, African-American History: From Civil Rights to Black Power
2) At least one course from each of the following areas, a total of nine credit hours:

## Area 1: Africa

Anthropology
ANTHRO 2191, Special Topics in Non-Western Cultures
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
Political Science
POL SCI 2580, African Politics
Area 2: Diaspora

## Communication

COMM 3332, Intercultural Communication
History
HI ST 2015, Topics in African-American History
HIST 2063, African Diaspora to 1800
HIST 2064, African Diaspora Since 1800
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
3) An independent study course (three credit hours) in which a research paper will be written on some aspect of one of the fields offered in the program.

East Asian Studies Certificate

1) First- and second-year Chinese, Japanese, or other appropriate Asian language ( 20 hours taken in four semesters).
2) HIST 1041 and HIST 1042, East Asian Civilization
3) One course in three of the following areas, a total of nine hours:

## Area 1: Anthropology

ANTHRO 2111, Cultures of East Asia
ANTHRO 2191, Special Topics in Non-Western Cultures (when appropriate)
Area 2: Art and Art History
ART HS 1108, Introduction to the Arts of Asia
ART HS 4408, Topics in Arts of Asia
Area 3: Business Administration
FI NANCE 3581, Business in China
MGMT 3684, The J apanese Management System
Area 4: Foreign Languages and Literatures-Chinese
CHI NESE 1005, Chinese Calligraphy and Writing in East Asia (1)
CHI NESE 1199, Special Topics: Language Immersion: Chinese (1)
CHI NESE 2150, Chinese Literature in Translation
CHI NESE 2190, Special Readings (1-3)
CHI NESE 2199, Special Topics: Language Immersion: Chinese
Area 5: Foreign Languages and Literatures-J apanese
J APAN 1003, Japanese III
J APAN 1005, Chinese Calligraphy and Writing in East Asia (1)
JAPAN 1199, Special Topics: Language Immersion: Japanese (1)
J APAN 2150, Classical J apanese Literature in Translation
J APAN 2190, Special Readings (1-3)
J APAN 2199, Special Topics: Language Immersion: Japanese (1)
J APAN 3201, Intermediate J apanese III
J APAN 3202, Intermediate J apanese IV
J APAN 3290, Special Readings (1-3)
J APAN 4390, Special Readings (1-3)
Area 6: History
HIST 2031, Modern Japan: 1850 to Present
HI ST 2032, Modern China: 1800 to Present
HIST 2033, Modern History of the Asian Pacific Rim
Area 7: Music
M H L T 1090, Non-Western Music I
Area 8: Philosophy
PHIL 1120, Asian Philosophy
Area 9: Political Science

## Area 10: Social Work SOC WK 2330, Asians in Migration

3) Independent Study Course: Students seeking the certificate must complete an independent study course (three credit hours) in which a research paper will be written focusing upon some aspect of East Asian Studies. The topic should be approved in advance by the Center for International Studies.

## Modern European Studies Certificate

1) Four semesters of college work or the equivalent in a modern European foreign language.
2) HIST 1032, Topics in European Civilization: 1715 to the Present.
3) One course each from at least four of the following areas, a total of 12 hours. Students should consult advisers at the Center for International Studies to determine how these courses can best be arranged to meet their interests.

## Anthropology

ANTHRO 2192, Anthropological Perspectives on Western Culture

## Art and Art History

ART HS 2250, Nineteenth-Century European Art
ART HS 2255, Modern Art
ART HS 4445, Topics in Seventeenth- and Eighteenth-Century European Art
ART HS 4455, Topics in Modern Art
Business Administration
MKTG 3787, Marketing in the European Union
Economics
ECON 3300, International Economic Analysis
English
ENGL 2280, The Contemporary World in Literature
ENGL 2320, English Literature II
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

HI ST 2090, Eighteenth-Century European History
HI ST 2091, Nineteenth-Century European History
HI ST 2092, Europe 1900-1950: War and Upheaval
HI ST 2093, Europe, 1950 - Present: Peace and Prosperity

## Foreign Languages and Literatures

French
FRENCH 2110, Modern French Literature in Translation
FRENCH 2150, European Literature in Translation: Special Topics
FRENCH 3211, Contemporary French Culture
FRENCH 3281, French Literature II: Nineteenth and Twentieth Centuries
FRENCH 4353, Eighteenth-Century French Literature
FRENCH 4354, Eighteenth-Century French Theatre and Novel
FRENCH 4362, Nineteenth-Century French Novel
FRENCH 4371, Twentieth-Century French Novel
FRENCH 4375, Modern French Theatre
German
GERMAN 2180, Readings in German
GERMAN 3201, Introduction to German Literature
GERMAN 3210, German Culture and Civilization
GERMAN 3211, Topics in German Culture (when appropriate)
GERMAN 3281, German Literature and Culture II: Romanticism-Present
GERMAN 4311, Special Topics in German Culture (when appropriate)
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 4310, Spanish Literature from 1898 to 1939
SPANISH 4311, Special Topics in Hispanic Culture
SPANISH 4315, Spanish Literature from 1939 to the Present
SPANISH 4320, Realism and Naturalism in the Nineteenth-Century Spanish Novel
SPANISH 4321, Poetry and Drama of the Nineteenth Century
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 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 2560, Russia and the New Republics

* POL SCI 3595, Studies in Comparative Politics (when appropriate)
* POL SCI 3890, Studies in International Relations (when appropriate)
* POL SCI 4510, Comparative Public Policy and Administration (when appropriate)

Independent Study Course: Students seeking the certificate must complete an independent study course (three credit hours) in which a research paper will be written focusing upon aspect of Modern European Studies. The topics should be approved in advance by the Center for International Studies.

## Greek Studies Certificate

1) Greek Language. Students must complete at least nine credit hours from the following courses.
```
Ancient Greek
GRK ANC 1001, Ancient Greek I (5)
GRK ANC 1002, Ancient Greek II (5)
GRK ANC 2101, Intermediate Ancient Greek Language and Culture
GRK ANC 2151, Greek and Latin in English Today
GRK ANC 2152, A Brief Introduction to Greek and Latin in English Today (1)
GRK ANC 2190, Special Readings (1-3)
Modern Greek
GRK MOD 1001, Modern Greek I (5)
GRK MOD 1002, Modern Greek II (5)
GRK MOD 2101, Intermediate Modern Greek Language and Culture
GRK MOD 2102, Intermediate Modern Greek Language and Culture
GRK MOD 2150, Modern Greek Literature in Translation
GRK MOD 2190, Special Readings (1-3)
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2) Students must complete at least nine credit hours from the following courses.

## Anthropology

ANTHRO 1037, The Wonders of Greece: Introduction to Greek History and Culture
ANTHRO 1052, The Olympic Games: Ideals and Reality
ANTHRO 2035, Ancient Greek Civilization and Culture
ANTHRO 2117, Greek History and Culture (same as HIST 2117)
ANTHRO 2190, Special Topics in Archaeology (only when appropriate)
ANTHRO 2192, Anthropological Perspectives on Western Culture (only when appropriate)
ANTHRO 3225, Ritual Death, and Sports: The Archaeology of Greek Mythology
ANTHRO 4309, Archaeological Field School (3-6) (only when appropriate)
ANTHRO 4350, Special Study (1-3) (only when appropriate)
ART HS 2211, Art and Archaeology of the Ancient World
ART HS 2212, Greek Art and Archaeology
ART HS 3390, Special Study (1-10) (only when appropriate)

ART HS 4411, Topics in Ancient Art and Archaeology (only when appropriate) ART HS 4490, Special Study (1-10) (only when appropriate)

ENGL 1200, Myth
HIST 1030, The Ancient World
HIST 2117, Greek History and Culture (same as ANTHRO 2117 and GK MOD 2772)
HIST 2291, War in Ancient Greece and Today: From Trojan War to Iraq
GRK MOD 2150, Modern Greek Literature in Translation
GRK MOD 2190, Special Readings (1-3)
Note: GRK MOD courses will count for either the language requirement or the focus area requirement but not for both.

MHLT 4270, A History of Byzantine Music and Hymnography
PHIL 3301, Ancient Philosophy
PHI L 4401, Plato
PHI L 4402, Aristotle

## International Business Certificate

1) 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.
2) One course from Area 1 and one from Area 2 a total of six hours.
```
Area 1: Business Administration
I NTBUS 3280, The Law of International Business Transactions I NTBUS 3580/ FI NANCE 3580, International Corporate Finance FI NANCE 3581, Business in China I NTBUS3582/ FI NANCE 3582, International Investments I NTBUS 3680/ MGMT 3680, International Management
MGMT 3682, Managing the Global Workforce
MGMT 3684, The J apanese Management System
MGMT 3685, Role of the Global Corporation
MGMT 3689, International Business and Society
MGMT 4689, International Strategic Management
I NTBUS 3780/ MKTG 3780, International Marketing
I NTBUS 3787/ MKTG 3787, Marketing in the European Union
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Area 2: International Studies
ANTHRO 2111, Cultures of East Asia
ANTHRO 2114, Cultures of the Near and Middle East
ANTHRO 2124, Cultures of Africa
ECON 3300, International Economic Analysis
ECON 3320, Economic Development
POL SCI 3830, International Political Economy
POL SCI 3850, International Organizations and Global Problem Solving
SOC 3241, Globalization and its impact on Society and Culture
SOC 4354, Sociology of Business and Work Settings
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.
3) An independent study course is not required for this certificate option.

## International Affairs Certificate

1) Satisfactory completion of the language requirements for the degree program in which a student is enrolled.
2) POL SCI 1800, World Politics
3) A total of 12 credit hours from at least three of the following eleven areas:

## Area 1: Anthropology

ANTHRO 3236, Sex Trafficking in Cross-Cultural Perspectives

Area 2: Biology
BIOL 1202, Environmental Biology
BIOL 1350, Conservation of Biodiversity
BIOL 3202, Conservation Biology
Area 3: Business Administration
BUS AD 3288, Independent Study in International Business
BUS AD 3289, Practicum in International Business
BUS AD 3980, The Law of International Business Transactions
FI NANCE 3580, International Finance
FI NANCE 3581, Business in China
FI NANCE 3582, International Investments
LOG OM 4381, International Logistics and Operations Management
MGMT 3680, International Management
MGMT 3682, Managing the Global Workforce
MGMT 3684, The J apanese Management System
MGMT 3685, Role of the Global Corporation
MGMT 3689, International Business and Society
MGMT 4689, International Strategic Management
MKTG 3780, International Marketing
MKTG 3787, Marketing in the European Union
Area 4: Communication
COMM 3332, Intercultural Communication
Area 5: Economics
ECON 3300, International Economic Analysis
Area 6: Geography
GEOG 1002, World Regions
Area 7: History
HIST 2014, American Foreign and Military Affairs, 1900-Present
HIST 2033, Modern History of the Asian Pacific Rim
HIST 2062, West Africa Since 1800
HIST 2064, African Diaspora Since 1800
HI ST 2091, Nineteenth Century European History
HIST 2092, Europe, 1900-1950: War and Upheaval
HIST 2093, Europe 1900-1950: Peace and Prosperity
Area 8: Media Studies
MEDI A ST 2500, Introduction to Comparative International Media Systems
MEDI A ST 3354, Comparative Telecommunication Systems
MEDI A ST 3356, Global Media System and Trends
Area 9: Political Science
POL SCI 1820, Global Issues
POL SCI 2510, The Politics of European Union
POL SCI 2520, Middle Eastern Politics
POL SCI 2820, United States Foreign Policy
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 4850, International Law
Area 10: Social Work
SOC WK 2330, Asians in Migration
Area 11: Sociology
SOC 3241, Globalization and Its Impact on Society and Culture
SOC 4354, Sociology of Business and Work Settings
4) Independent Study Course: Students seeking the certificate must complete an independent study course ( 3 credit hours) in which a research paper will be written focusing upon some aspect of international affairs. The topic should be approved in advance by the Center for International Studies.

## Latin American Studies Certificate

1) Thirteen credit hours or the equivalent in Spanish.
2) Either HIST 1051, Latin American Civilization, or HIST 1052, Mexican Civilization, or SPANISH 3211, Hispanic Culture and Civilization: Spanish America.
3) A total of 12 hours from at least three of the following areas:

## Area 1: Anthropology <br> ANTHRO 2134, Archaeology of the Inca, Aztec, and Maya

Area 2: History
HIST 1052, Mexican Civilization
HIST 2051, History of Latin America: To 1808
HIST 2052, History of Latin America: Since 1808
HIST 2097, History of Spain
Area 3: Political Science
POL SCI 2530, Political Systems of South America
POL SCI 2540, Political Systems of Mexico, Central America, and the Caribbean
POL SCI 3595, Studies in Comparative Politics (when appropriate to Latin America)

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Area 4: Spanish
SPANISH 3211, Hispanic Culture and Civilization: Spanish America
SPANI SH 3281, Introduction to Hispanic Literature: Spanish America
SPANISH 4345, Spanish-American Literature of the Twentieth Century
SPANISH 4351, Spanish-American Fiction in the Twentieth Century
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4) Independent Study Course: Students seeking the certificate must complete an independent study course (three credit hours) in which a research paper will be written focusing upon some aspect of Latin American Studies. The topic should be approved in advance by the Center for International Studies.

## Graduate Certificate in I nternational 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 International Studies and Program 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

Students must complete at least 12 hours chosen from the following list of core courses:

Business Administration<br>FI NANCE 6580, International Finance, Investment, and Commercial Relations<br>LOG OM 5381, International Logistics and Operations Management<br>ACCTNG 5480, International Accounting<br>Economics<br>ECON 5300, International Trade<br>ECON 5301, International Finance<br>History<br>HIST 6112, Readings in European History Since 1715<br>HIST 6113, Readings in East Asian History<br>HIST 6114, Readings in Latin American History<br>HIST 6115, Readings in African History<br>Political Science<br>POL SCI 6450, Proseminar in Comparative Politics<br>POL SCI 6451, Seminar in Comparative Politics<br>POL SCI 6480, Proseminar in International Relations<br>POL SCI 6481, Seminar in International Relations<br>POL SCI 6488, Studies in International Relations

## Sociology <br> SOC 5410, Comparative Social Structures

Students must complete an additional six hours chosen from the following:

## Economics

ECON 3300, International Economic Analysis
ECON 4980, Special Readings

## English

ENGL 4920, Major Works Of European Fiction
History
HIST 4001, Special Readings [when appropriate]
Foreign Languages and Literature
FRENCH 4362, Nineteenth-Century French Novel
FRENCH 4371, Twentieth-Century French Novel
FRENCH 4375, Modern French Theatre
SPANI SH 4310, Spanish Literature from 1898-1939
SPANISH 4315, Spanish Literature from 1939 to Present
SPANISH 4320, Realism and Naturalism in the Nineteenth Century Spanish Novel
SPANISH 4321, Poetry and Drama of the Nineteenth Century
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 SC 4850, International Law
POL SC 6485, Directed Readings and Research in International Relations
Note: Students may not count both BUS AD 6580 and BUS AD 3580. No more than 12 credit hours may be from any one discipline.

# BULLETIN <br> University of Missouri - St. Louis 

## Study Abroad Programs

UMSL Home

## International Studies and Programs Home Page

## 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 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 Seoul, South Korea during the fall semester. In addition to meeting the other requirements for student teaching, students complete an application form for the site.

## School of Professional \& Continuing Studies

## UMSL Home

## School of Professional \& Continuing Studies Home Page

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.

Through Continuing Studies, 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

Continuing Studies in the College of Arts and Sciences includes credit courses and noncredit programs from the college's departmental disciplines, including courses and workshops in archaeology, microcomputers, writing, languages, history, and social and physical sciences. Interdisciplinary teaching and research programs deal with such fields as social work, the humanities, women's studies, and economics.

The Center for Entrepreneurship and Economic Education provides credit courses, noncredit programs and curriculum consultations to teachers and schools.

The Computer Education \& Training Center develops and teaches applied computer courses and offers 10 specialized Chancellor's Certificate programs.

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 Gateway Writing Project offers credit courses, noncredit programs, and a Graduate Certificate in the Teaching of Writing for elementary, secondary, and college-level teachers. The Gateway Writing Project works with schools and districts to provide professional development programs that meet their individual needs.

## Business Administration

Continuing Studies credit and noncredit programs through the College of Business Administration are offered in multiple areas, including financial planning; training, facilitation and coaching best practices; organizational development; team leadership; human resource management; broad survey courses; a variety of short, targeted offerings; and customized courses designed to meet individual client needs. Several certificate programs are offered as well as preparatory courses for professional certification programs in financial planning, human resources, and project management.

## Education

The College of Education, which is accredited by the National Council for Accreditation of Teacher Education (NCATE) for the preparation of teachers, counselors, and administrators, offers an array of graduate and doctoral programs in education. 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.

## Transition to Teaching Program

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.

## Fine Arts and Communication

The College of Fine Arts and Communication offers a variety of Continuing Studies activities to the community. Four endowed professorships are focused on community outreach in the arts. The award-winning E. Desmond Lee Music Education Collaborative, and other collaborative activities undertaken by the College in conjunction
with arts organizations in the greater St. Louis area, all contribute to the college mission. A range of credit and noncredit fine arts outreach programs are offered in partnership with the St. Louis Symphony, Dance St. Louis, Opera Theatre of Saint Louis, Saint Louis Art Museum, and the Saint Louis Black Repertory Company.

## Graduate School and Public Policy Administration

The Nonprofit Management and 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 Continuing Studies, the program offers noncredit seminars, workshops, and conferences, both on and off campus.

## Nursing

The College of Nursing at the University of Missouri-St. Louis offers an RN to BSN program for Registered Nurses both on and off campus. Currently, the college offers the RN to BSN courses at St. Charles Community College, the SSM Health System at DePaul Health Center, and Mercy Hospital in St. Louis. The MSN/FNP Program is offered at various outreach sites, depending on interest.

## Optometry

The University of Missouri-St. Louis 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

Continuing Studies offers credit courses leading to degree completion at various other metropolitan sites, including St. Charles Community College, Mineral Area College, Jefferson College, the St. Louis Community College South County Education and University Center, and St. Louis Community College at Wildwood and at Forest Park.

## Community Partnership Project

The Community Partnership Project develops initiatives that link university resources with the needs and priorities of residents and communities in the St. Louis region. The Community Partnership Project sponsors seminars and brown bag sessions, convenes teams to respond to key urban issues, and provides support for faculty and students in connecting with community organizations.

## Executive Leadership Consortium

The UMSL Executive Leadership consortium offers on-campus and off-campus credit and noncredit programs, contract programs, consultation, and action research through various campus units. These programs are offered in multiple areas, including leadership education training and advancement. A variety of short, targeted offerings and customized courses are designed to meet individual client needs. These programs and courses are developed on our own initiative and in response to expressed needs to best meet the needs of the lifelong learner.

## In-house Training

Specialized research and technical assistance and in house training programs are available to local businesses and organizations. With the help of expert faculty and staff consultants, Continuing Studies is equipped to deliver specialized training on an in house basis.

## J.C. Penney Conference Center

This large conference facility at UMSL houses a 435 seat auditorium, as well as six large and four 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.

## College of Arts and Sciences

## UMSL Home

## College of Arts and Sciences Home Page

## General I nformation

The College offers a wide range of accredited baccalaureate, master's and doctoral degrees and multidisciplinary certificates through 14 departments, the School of Social Work and the Institute for Women's and Gender Studies.

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.)
Lanquages and Cultures (B.A. in Modern Language with emphasis areas in French, German, Japanese, and Spanish)
History (B.A., M.A.)
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., 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., M.A.)
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 and a Bachelor of Science in Liberal 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, social work, and sociology. 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 \& university requirements.
- Completion of INTDSC 1003 University Studies for all students admitted to UMSL with fewer than 24 academic credit hours.


## Academic Policies

## Grade Requirements

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

- Earn 120 graded 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 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 universityquality equivalents at other institutions: anthropology/archaeology, art (appreciation, history, studio), astronomy, biology, chemistry, communication, criminology and criminal justice, economics, English, languages and cultures, 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.)

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, French, history, mathematics, philosophy, physics, political science, psychology, sociology, and Spanish.

## 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 the Department of Anthropology, Sociology and Languages 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 Anthropology, Sociology and Languages 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 (Music $1400,1410,1500,1520$, 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

(See Interdisciplinary Programs 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.

## I nternational 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, languages and cultures, history, 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

Undergraduate Studies | Course Descriptions | Department of Anthropology, Sociology, and Languages |

## UMSL Home <br> Anthropology Home Page <br> Faculty

Susan E. Brownell, Professo, Chairpersonr
Ph.D., University of California-Santa Barbara
Michael Cosmopoulos, Hellenic Government-Karakas Family Foundation Endowed Professor of Greek Studies and Professor of Archaeology
Ph.D., Washington University in St. Louis
Laura Miller, Eiichi Shibusawa-Seigo Arai Endowed Professor in Japanese Studies,
Ph.D., University of California-Los Angeles
Jay Rounds, Des Lee Professor of Museum Studies
Ph.D., University of California-Los Angeles
Sheilah Clarke-Ekong, Associate Professor,
Ph.D., University of California-Los Angeles
Margo-Lea Hurwicz, Associate Professor
Ph.D., University of California-Los Angeles
Patti Wright, Associate Professor
Ph.D., Washington University in St. Louis
Michael Ohnersorgen, Assistant Professor
Ph.D., Arizona State University
Allon Uhlmann, Assistant Professor
Ph.D., Australian National University
Christopher A. Shaffer, Visiting Assistant Professor
Ph.D., Washington University in St. Louis
Lucretia Kelly, Adjunct Assistant Professor
Ph.D., Washington University in St. Louis
Catherine Koziol, Adjunct Assistant Professor
M. A., Washington University in St. Louis

## 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, archaeological, and biological anthropology research at home and abroad.

## Cultural Anthropology

Faculty conduct research in St. Louis, Los Angeles, Ghana, South Africa, China, Israel, Australia, and Native American communities. They encompass studies in health care choices of elder citizens, museum studies, gender and sexuality, body culture and sports, culture diversity principles, educational anthropology 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 an 800-yearold ceremonial site at Cahokia Mounds, Illinois, a 10th-15th century pre-Aztec society in northwestern Mexico, and a Bronze Age administrative center near Iklaina, Greece. The program also has an archaeology lab and library with one of the largest extant collections of artifacts from eastern Missouri.

## Biological Anthropology

Faculty members are active in the study of the behavior, ecology, and evolution of primates and of educational issues in the study of paleoanthropology (fossil record of human origins) and human variation. Students have conducted original research at the St. Louis Zoo. They 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 for the Senior Seminar, culminating in written and oral reports to student colleagues and the faculty. The program encourages study abroad and in other regions of the United States and has scholarship funds to assist. There is an active Association of Student Anthropologists that sponsors an intercultural film series, 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.

## Undergraduate Studies

## 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.

## 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
ANTHRO 1011, Introduction to Cultural Anthropology
ANTHRO 1019, Introduction to Archaeology
ANTHRO 3202, History and Theory of Anthropology
ANTHRO 4315, Professionalism and Practice in Anthropology
9 credit hours or three courses in Anthropology numbered 2100-2199. The three courses must come from two different subfields: Cultural Anthropology, Archaeology, or Biological Anthropology.

9 credit hours or three courses in Anthropology numbered 3200-3299 in addition to ANTHRO 3202.
ANTHRO 4000, Ethnographic Field Research Methods, or ANTHRO 4100, Field Methods in Archaeology, or ANTHRO 4200, Field Methods in Biological Anthropology, and 2 additional credit hours of methods courses in Anthropology numbered 4000-4311.

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:

1. 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.
2. 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.
3. I nformation 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.
4. Valuing/ Ethics/ Integrity

Graduates will be able to discuss and articulate the professional ethics and codes of conduct of the discipline.
5. 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.
6. 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, ANTHRO 4315, either ANTHRO 4000, 4100, or 4200, and two additional coureses numbered from ANTHRO 3000-4999.

## Anthropology Minor

There are three possible emphases in the minor: Cultural Anthropology, Archaeology, and Biological/Forensic Anthropology. One course should be selected from each of the following five groups:

1. ANTHRO 1011, Introduction to Cultural Anthropology OR

ANTHRO 1019, Introduction to Archaeology OR
ANTHRO 1005, Biological Anthropology
3 credit hours in Anthropology numbered 2100-2199. 3 credit hours in Anthropology numbered 3200-3299.
3 credit hours in Anthropology numbered 4000-4999 in addition to ANTHRO 4315. ANTHRO 4315,
Professionalism and Practice in Anthropology
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.

Students in the Bachelor of Liberal Studies must take Anthropology 4301 as their capstone course.

## Archaeology Certificate

ANTHRO 1019, Introduction to Archaeology
3 credit hours in ANTHRO numbered 2100-2199 with an archaeological emphasis.
3 credit hours in ANTHRO numbered 3200-3299 with an archaeological emphasis.
Five credit hours of archaeology method courses at the 4100-4199, including ANTHRO 4100, Field Methods in Archaeology.

ANTHRO 4326, Internship in Archaeology (3 credit hours) or ANTHRO 4312, Cultural Resource Management.

## 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.

## Course Descriptions

## ANTHRO 1005 Introduction to Biological Anthropology (4)

Biological anthropology studies evolutionary theory and its development, the evolution/creationist debate, Mendelian and 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.

## ANTHRO 1006 Introduction to Non-Human Primates (3)

As a general survey of our closest living relatives, this course introduces the ecology, cognition, communication, social and sexual behavior, and fossil history, of non-human primates. The work of well-known primatologists is used to illustrate various aspects of field research. Conservation status of primates in the wild is assessed as well as current threats to survival.

## ANTHRO 1011 Introduction to Cultural Anthropology (3) [V, SS, CD]

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.

## ANTHRO 1019 Introduction to Archaeology (3) [MI, SS, CD]

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.

## ANTHRO 1021 The Body in Culture (3) [CD]

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 cultural beliefs in five areas: how the body works sex and gender eating manners and food pain and punishment beauty and bodily mutilation.

## ANTHRO 1025 World Cultures (3) [V, SS, CD]

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

## ANTHRO 1033 World Archaeology (3) [MI, SS, CD]

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 Olduvia 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 nonanthropology majors, or for those who are considering the major.

## ANTHRO 1037 The Wonders of Greece: I ntroduction to Greek History and Culture (3)

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. This course will include screening of films and use of online resources.

## ANTHRO 1041 Sex and Gender across Cultures (3) [CD]

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 indigenous non-Western 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 nonWestern cultures.

## ANTHRO 1052 The Olympic Games: I deals and Reality (3)

What would the ancient Greeks think of the modern Olympic Games? This course uses cross-cultural
comparison to assess whether the modern Olympic Games live up to their ancient Greek ideals. It begins with the history and philosophy of the ancient Olympic festival too understand the personal, educational, and political nature of the Olympic Ideal in its ancient cultural context. Next it examines the modern Games from the perspectives of athletes, spectators, and society at large to critically evaluate the Games as a contemporary social phenomenon. Finally, students develop constructive solutions the problems identified.

## ANTHRO 1163 Disagreement, Difference, Diversity (6) [C, V, S, H]

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 1091 Introductory Topics in Anthropology (3) [CD]

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.

ANTHRO 1095 Brief Overview of the Four Fields of Anthropology (1)
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 2035 Ancient Greek Civilization and Culture (3)

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 a 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 descents. Examines the nature of the ancient Greek language, surveys literary classics such as the Illiad and the Odyssey, and describes the archaeology of Greek myths based on the ongoing UMSL archaeological project in Greece. Discusses the rise of humanism, the ancient Olympic Games, and the legacy of ancient Greece in Western civilization.

## ANTHRO 2105 Human Variation (3)

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)

Prerequisite: 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) [CD]

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.

## ANTHRO 2114 Cultures of the Near and Middle East (3) [CD]

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.

## ANTHRO 2117 Greek History and Culture (3)

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 2120 Native Peoples of North America (3) [CD]
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 Symbols in American Indian Culture (3)
This class will look at the role of symbols in American Indian cultures in the United States and Canada, in both prehistoric and historic times. It will look at how they have used symbols to communicate, record their history, express themselves artistically, and define a tribal identity. Satisfies Cultural Diversity requirement.

## ANTHRO 2123 Cultures of Oceania (3) [CD]

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.

## ANTHRO 2124 Cultures of Africa (3) [CD]

A basic ethnographic survey of African cultures, with attention to social groupings, ethnicity, religion, language and social change, and the ecological relationship between humans and nature.

ANTHRO 2126 Archaeology of Greater St. Louis (3)
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 the city streets and buildings. Archaeology is our link to this cultural legacy. Through the use of archaeological data and historical sources, this class will explore human social and cultural developments in St. Louis.

## ANTHRO 2131 Archaeology of Missouri (3) [CD]

An introduction to the prehistoric American Indian cultures of Missouri and adjacent areas from 20,000 years ago to the coming of 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.

## ANTHRO 2132 Archaeology of North America (3) [CD]

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.

## ANTHRO 2134 Archaeology of the Inca, Aztec, and Maya (3) [CD]

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.

## ANTHRO 2173 Archaeology and Cultures of the Biblical World (3) [CD]

A survey of the cultures of the Old Testament World with attention to their evolution, internal and external relationships, as well as their diverse religious, social, economic, and political institutions. The instructor will teach skills in evaluating popular vs. scientific and historical evidence of Biblical events.

## ANTHRO 2191 Special Topics in Non-Western Cultures (3) [CD]

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.

## ANTHRO 2192 Anthropological Perspectives on Western Culture (3)

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)

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)

Same as CRIMIN 3209. Prerequisite: 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 anthropologist 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)

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

## ANTHRO 3211 Linguistic Anthropology (3)

Prerequisites: ANTHRO 1011 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, writing systems of the world, language and gender, or other topics.

## ANTHRO 3212 Medical Anthropology (3)

Prerequisite: ANTHRO 1011, or introductory course in another social science, or consent of instructor. An examination of the growing interaction between introductory course in another social science, or consent of instructor 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 3215 Aging Across Cultures (3)

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)

Prerequisite: 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)

Same as SOC 3220. Prerequisites: SOC 1010 or ANTHRO 1011 and MATH 1020 or 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: The Archaeology of Greek Mythology (3)

Prerequisite: 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 Greeks' understanding of life, death, and 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 3226 Origins of Farming and Herding (3)

Prerequisite: ANTHRO 1019 or consent of instructor. This course surveys the archaeological evidence for the domestication of plants and animals from around the world and the accompanying revolution in social organization, which continues to influence the modern world. It discusses key issues, concepts, and debates. It examines case studies of early domesticated plants and animals (e.g. wheat, maize, cattle, dogs, and many others) and regional studies of the development of farming and herding in ancient Egypt, Mesopotamia, China, the Americas, and Europe.

## ANTHRO 3227 Monsters \& Victims: Women Dramatis Personae in Greek Tragedy and Contemporary Drama (3.0)

Prerequisite: 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 I phigenia, 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 3229 Economic Archaeology and Anthropology (3)

Prerequisite: ANTHRO 1011 or ANTHRO 1019 or consent of instructor. This course examines economic organization and behavior in a cross-cultural 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) [CD]

Prerequisite: ANTHRO 1011, or introductory course in another social science, or consent of the 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.

## ANTHRO 3236 Sex Trafficking in Cross-Cultural Perspective (3)

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 J apanese Popular Culture (3)

Prerequisites: ANTHRO 1011. This course will explore Japanese culture and society through investigation of a range of topics related to history, social diversity, subcultural identity, gender, demographic change, and media. In addition to lectures, we will study primary sources from Japanese culture, including biographies, fiction, films, anime, manga, television, music, magazines, and other media. The study of Japanese popular culture is ideal for gaining an understanding of 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 3255 Oral History and Urban Culture in St. Louis (3)

Prerequisite: ANTHRO 1011 or instructor's consent. This course involves students in background research and active fieldwork in urban anthropology within the metropolitan area. The focus will be on learning and applying oral history techniques in the city of St. Louis and its neighborhoods. Students will conduct in-depth fieldwork in one city neighborhood. They will learn fieldwork methodologies and how to conduct social, cultural, and historical research in preparation for fieldwork. This includes learning to research, conduct, and process interviews. They will also learn to work in teams to construct a group project to be presented to the class.

## ANTHRO 3270 Human Ecology, Cultural Collapse, and Sustainable Developments (3)

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)

Prerequisite: ANTHRO 1019, or consent of instructor. Selected topics in archaeology 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)

Prerequisite: 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 4100 Field Methods in Archaeology (3)
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 4200 Field Methods in Biological Anthropology (3)

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 4301 Ideas and Explanations in Anthropology (3)

Prerequisite: One of ANTHRO 3202, ANTHRO 3209, ANTHRO 3210, ANTHRO 3212, ANTHRO 3216, ANTHRO 3229, ANTHRO 3230, or. The theory course in the capstone sequence for Anthropology majors. Students learn to identify and synthesize relevant theories write them up in the form of a comprehensive literature review and apply them constructively to the collection, analysis, and explanation of data. Majors should take this course concurrently with ANTHRO 4308, ANTHRO 4310 or ANTHRO 4311.

## ANTHRO 4308 Practicum in Cultural Research Methods (3)

Prerequisites: One course in statistics and ANTHRO 1011, or consent of instructor. (With computer laboratory.) Emphasizes hands- on training in techniques for both the collection and analysis of ethnographic data, including participant observation, selection of ethnographic informants, key informant interviewing, and more systematic methods such as survey research. The use of computer programs for the development of protocols to collect, analyze, and display data will be covered in lab.

## ANTHRO 4309 Archaeological Field School (3-6)

Prerequisite: 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 specialty analysis. Opportunities are provided for the development of field and laboratory leadership skills. Independent research is encouraged.

## ANTHRO 4310 Laboratory Methods in Archaeology (3)

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)

Prerequisite: ANTHRO 1019 or Consent of the 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 in Practice in Anthropology (3)

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)

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)

Prerequisite: Recommendation of major adviser. Students will be assigned an internship on recommendation of their adviser. 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 a student's interests and career goals.

## ANTHRO 4326 Internship in Archaeology (1-6)

Prerequisite: Recommendation of major adviser. Students will be assigned an internship on recommendation of their adviser. 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 a student's interests and career goals.

## ANTHRO 4328 Internship in Museum Studies (1-3)

Prerequisite: Recommendation of major adviser. Students will be assigned an internship on recommendation of
their adviser. 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)

Prerequisite: Recommendation of major adviser. Students will be assigned an internship on recommendation of their adviser. 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)

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)

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.

## ANTHRO 5312 Cultural Resource Management and Historic Preservation (3)

Prerequisite: Graduate standing 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, helping 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 5440 Cultural Aspects of Aging (3)

Same as GERON 5440. Prerequisite: Graduate status or consent of 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)

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 sits for the interpretations of art and culture, and as contested meeting grounds for various views of history and culture.

## ANTHRO 6136 Foundations of Museology II (3)

Same as ART HS 6036 and HIST 6136. Prerequisite: 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 6138 Museum Studies Master's Project (4)

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

## ANTHRO 6139 Practicum in Exhibit and Program Development (3)

Prerequisite: 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.

# Degree Programs in Biochemistry and Biotechnology 

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## Faculty

Wesley R. Harris, Professor of Chemistry and Biochemistry, Director
Ph.D., Texas A\&M University
George Gokel, Distinguished Professor of Chemistry \& Biochemistry
Ph.D., University of Southern California
Xuemin Wang, E. Desmond Lee and Family Fund Endowed Professor of Plant Sciences
Ph.D., University of Kentucky
Keith J. Stine, Professor of Chemistry and Biochemistry
Ph.D., Massachusetts Institute of Technology
Teresa Thiel, Professor of Biology; Associate Dean, College of Arts and Sciences
Ph.D., Case Western Reserve University
Cynthia M. Dupureur, Associate Professor of Chemistry and Biochemistry
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Michael R. Nichols, Associate Professor of Chemistry and Biochemistry
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Ph.D., The William Marsh Rice University
Chung F. Wong, Associate Professor of Chemistry and Biochemistry
Ph.D., University of Chicago
Lisa Schechter, Assistant Professor of Biology
Ph.D., Harvard University
Mindy Steiniger, Assistant Professor of Biology
Ph.D., University of Wisconsin, Madison
Bethany Zolman, Assistant Professor of Biology
Ph.D., The William March Rice University
Joseph Kamalay, Assistant Teaching Professor of Biology
Ph.D., University of California, Los Angeles
Marc Spingola, Assistant Teaching Professor of Biology
Ph.D., University of New Mexico
Lisa Underwood, Assistant Teaching Professor of Biology
Ph.D., Washington University, St. Louis

## 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. 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.

1) Biology Core Courses

BIOL 1811, Introductory Biology: From Molecules to Organisms
BIOL 2012, Genetics
BIOL 2013, Genetics Laboratory
BIOL 2482, Microbiology
BIOL 2483, Microbiology Laboratory
BIOL 3622, Cell Biology
2) Chemistry Core Courses

CHEM 1111, I ntroductory Chemistry I
CHEM 1121, I ntroductory Chemistry II
CHEM 2223, Quantitative Analysis
CHEM 2612, Organic Chemistry I
CHEM 2622, Organic Chemistry II
CHEM 2633, Organic Chemistry Laboratory
CHEM 3302, Physical Chemistry for the Life Sciences
3) Math and Physics Core Courses

MATH 1030, College Algebra
MATH 1035, Trigonometry
MATH 1100, Basic Calculus or MATH 1800, Analytic Geometry and Calculus I
PHYSI CS 1011, Basic Physics
PHYSICS 1012, Basic Physics
4) Biochemistry and Biotechnology Core Courses

BIOL 4602, Molecular Biology OR
BI OL 4612, Molecular Genetics of Bacteria (if both courses are taken, one can be used as an elective)
BIOL 4614, Biotechnology Laboratory I OR
BIOL 4615, Biotechnology Laboratory II (if both courses are taken, one can be used as an elective)
BIOL/ CHEM 4712, Biochemistry
CHEM 4733, Biochemistry Laboratory
CHEM 4722, Advanced Biochemistry
BIOL 4797, Biochemistry and Biotechnology Seminar OR
CHEM 4797, Biochemistry and Biotechnology Seminar (Students may not receive credit for both BI OL 4797
and CHEM 4797)
5) Biochemistry and Biotechnology Elective Courses- 6 credit hours chosen from the following courses:
BI OL 4550, Bacteria Pathogenesis
BIOL 4602, Molecular Biology
BIOL 4612, Molecular Genetics of Bacteria
BIOL 4614, Biotechnology Laboratory I
BIOL 4615, Biotechnology Laboratory II

BI OL 4622, Molecular Cell Biology
BI OL 4632, Nucleic Acid Structure and Function
BI OL 4642, Plant Biology and Biotechnology
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 (up to 3 credit hours)
CHEM 4772, Physical Biochemistry

## 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 ( $\mathrm{s} / \mathrm{u}$ ) 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:

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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 two 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 other 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 Biology/Chemistry 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 or CHEM 6905) may be applied toward the 30 credit hour total for the thesis or non-thesis options, respectively.

## 1) Required Courses

CHEM 4722, Advanced Biochemistry
CHEM 5774, Bioinformatics
BIOL 6615, Advanced Biotechnology Laboratory II
BIOL 6602, Advanced Molecular Biology or BI OL 6612, Advanced Molecular Genetics of Bacteria
BIOL 6889, Graduate Seminar

## 2) Elective Courses

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
CHEM 6905, Graduate Research
BIOL 4842, Immunobiology
BIOL 5069, Topics in Cell and Molecular Biology
BIOL 6442, Advanced Developmental Biology
BIOL 6550, Advanced Bacterial Pathogenesis
BIOL 6602, Advanced Molecular Biology
BIOL 6612, Advanced Molecular Genetics of Bacteria
BI OL 6622, Advanced Cellular Basis of Disease
BIOL 6632, Advanced Nucleic Acid Structure and Function
BIOL 6642, Advanced Plant Molecular Biology \& Genetic Engineering
BIOL 6652, Advanced Virology
BIOL 6699, Graduate Internship in Biotechnology
BIOL 6889, Graduate Seminar
BIOL 6905, Graduate Research
BIOL 6920, Topics in Biology (2-5 credits), when relevant.

## Course Descriptions

Prerequisites may be waived by consent of the instructor. Some courses as indicated in the course description may be taken concurrently with the listed offering. Consult an adviser for further information.

## Biology Courses

*Note - Majors in Biochemistry and Biotechnology are not required to take BIOL 1821; hence it is not a prerequisite for BIOL 2012, BIOL 2482, or BIOL 3622 for these majors.

BI OL 1811 I ntroductory Biology: From Molecules to Organisms (5), [MI, MS]

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 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 2012 Genetics (3)
Prerequisite: BIOL 1811 [biology majors must also take BIOL 1821] and CHEM 1111 or [CHEM 1082 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.

## BIOL 2013 Genetics Laboratory (2)

Prerequisite: Concurrent registration in BIOL 2012, or by consent 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 2482 Microbiology (3)

Prerequisite: BIOL 1811 [majors must also take BIOL 1821] and CHEM 1111 [or CHEM 1082 plus CHEM 1091]. 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)

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 3622 Cell Biology (3)

Prerequisite: BIOL 1811 [biology majors must also take BIOL 1821], CHEM 1111, CHEM 1121 and CHEM 2612 or equivalents. Examination of the basic biological processes of cells.

## BIOL 4550 Bacterial Pathogenesis (3)

Prerequisites: BIOL 2482, BIOL 2012. 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 6550 and BIOL 4550.

## BI OL 4602 Molecular Biology (3)

Prerequisites: BIOL 2012 and 4712. A study of the principles of molecular biology, with emphasis on understanding the genetic regulation of DNA, RNA, and protein synthesis and function in the eukaryotic cells. Three hours of lecture per week. Students may not receive credit for both BIOL 4602 and BIOL 6602.

## BI OL 4612 Molecular Genetics of Bacteria (3)

Prerequisites: BIOL 2482 and BIOL 2012. 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 may not receive credit for both BIOL 4612 and BI OL 6612.

BIOL 4614 Biotechnology Laboratory I (4)
Prerequisite: 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 hands-on experience with the techniques of the field will be addressed through lectures, discussion, 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 4000-level or above 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.

BI OL 4615 Biotechnology Laboratory II (4)
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 4000-5000 level lecture course requirement for the B.A. or B.S. degree in biology. Students may not receive credit for both BIOL 4615 and BIOL 6615.

## BI OL 4622 Molecular Cell Biology (3)

Prerequisites: BIOL 4602 and BIOL 3622, or consent of instructor. A study of the structural organization and processes of eukaryotic cells. Topics of discussion will include membrane dynamics, organelle biogenesis and function, signal reception and transduction, cytoskeleton structure and mobility, and the cell cycle. Basic concepts in these areas will be combined, covering complete signal transduction pathways and the cellular basis of disease, including cancer. Three hours of lecture per week. Students may not receive credit for both

BIOL 4622 and BIOL 6622.

## BI OL 4632 Nucleic Acid Structure and Function (3)

Prerequisites: BIOL 2012 and 4712 or equivalent or consent of instructor. Comprehensive view of structural properties of DNA and RNA that promote molecular interactions and biological function. Topics include physical properties of nucleic acids, 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.

## BI OL 4642 Plant Biology and Biotechnology (3)

Prerequisite: BIOL 4602 or 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, will also be covered. Three hours of lecture per week. Student may not receive credit for both BIOL 4642 and BIOL 6642.

BI OL 4652 Virology (3)
Prerequisites: BIOL 2012 and BIOL 3622. A comparative study of the structure, reproduction, and genetics of viruses. Three hours of lecture per week. Students may not receive credit for both BIOL 4652 and BIOL 6652.

## BIOL 4712 Biochemistry (3)

Same as CHEM 4712. Prerequisite: CHEM 2612 and either BIOL 1811 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.

## BIOL 4797 Biochemistry and Biotechnology Seminar (1)

Same as CHEM 4797. Prerequisite: Senior standing in the Biochemistry \& 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.

## BI OL 4842 I mmunobiology (3)

Prerequisites: BIOL 4712 and CHEM 2612. The fundamental principles and concepts of immunobiology and immunochemistry. Emphasis on the relation of immunological phenomena to biological phenomena and biological problems. Three hours of lecture per week.

## BIOL 5069 Topics in Cellular and Molecular Biology (1)

Prerequisite: Graduate standing. Presentation and discussion of student and faculty research projects and/or current research articles in molecular, cellular and developmental biology. May be repeated.

## BIOL 6550 Advanced Bacterial Pathogenesis (3)

Prerequisites: BIOL 2482 and BIOL 2012. 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 6602 Advanced Molecular Biology (3)

Prerequisites: BIOL 2012 and BIOL 4712, 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 cell. 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.

## BI OL 6612 Advanced Molecular Genetics of Bacteria (3)

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.

## BI OL 6615 Advanced Biotechnology Laboratory II (4)

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.

## BIOL 6622 Advanced Cellular Basis of Disease (3)

Prerequisites: BIOL 4602, and BIOL 3622, or consent of instructor. A study of structural organization and processes of eukaryotic cells. Topics of discussion may include membrane dynamics, organelle biogenesis and function, signal reception and transduction, cytoskeleton structure and mobility, and the cell cycle. Basic concepts in these areas will be combined, covering complete signal transduction pathways and the cellular basis of disease, including cancer. Students may not receive credit for both BIOL 6622 and BIOL 4622.

BIOL 6632 Advanced Nucleic Acid Structure and Function (3)
Prerequisites: BIOL 2012 and BIOL 4712 or equivalent or consent of instructor. Comprehensive view of structural properties of DNA and RNA that promote molecular interactions and biological function. Topics include physical properties of nucleic acids, formation and biological importance of higher order structures, RNA enzymatic activities, nucleic acid-protein interaction, 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 Molecular Biology and Genetic Engineering (3)
Prerequisite: BIOL 4602 or BIOL 4612. Topics will include plant cell and developmental biology, DNA transfer into plants, using mutations to identify genes and their functions, regeneration of plants in tissue culture, signal transduction mechanisms, molecular biology of plant organelles, developmental engineering, metabolic engineering, plant microbe interactions, and engineered resistance to pathogen attack. Three hours of lecture and one hour of seminar per week. Students may not receive credit for both BIOL 4642 and BIOL 6642.

## BIOL 6652 Advanced Virology (3)

Prerequisites: BIOL 2482 and BIOL 2012. An advanced comparative study of the structure, reproduction, and genetics of 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 I nternship in Biotechnology (1-4)

Prerequisites: Graduate standing and enrollment in graduate Biotechnology Certificate Program. Six credit hours maximum (maximum of eight combined credit hours of BIOL 6905 and internship). Internship will consist of 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 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)

Presentation and discussion of various research problems in biology. Graduate student exposure to the seminar process.

BI OL 6905 Graduate Research in Biology (1-10)
Research in area selected by student in consultation with faculty members.
BIOL 6920 Topics in Biology (2-5)
In-depth studies of selected topics in contemporary biology. May be repeated.

## Chemistry Courses

CHEM 1111 I ntroductory Chemistry I (5) [MS]
Prerequisite: Mathematics through college algebra and trigonometry 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 1082 and CHEM 1111, and both CHEM 1011 and CHEM 1111 in the 120 hours required for graduation. Three hours of lecture and one hour of discussion per week, one hour of laboratory-lecture and three hours of laboratory per week.

CHEM 1121 Introductory Chemistry II (5) [MI, MS]
Prerequisite: CHEM 1111 or advanced placement. Lecture and laboratory are a continuation of CHEM 1111. Three hours of lecture and one hour of discussion per week; one hour laboratory-lecture and three hours of laboratory weekly.

CHEM 2223 Quantitative Analysis (3) [C, MI, MS]
Prerequisite: 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 acidbase, 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) [MS]
Prerequisite: CHEM 1121. 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) [MI, MS]
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) [C, MS]
Prerequisite: CHEM 2612 or consent of instructor. An introduction to laboratory techniques and procedures of synthetic organic chemistry including analysis of organic compounds. One hour of lecture and four and onehalf hours of laboratory per week.

## CHEM 3302 Physical Chemistry for the Life Sciences (3)

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 requirement for other Chemistry B.A. and B.S. degree programs.

CHEM 3643 Advanced Organic Chemistry Laboratory (2)
Prerequisites: CHEM 2223, CHEM 2622, CHEM 2633. CHEM 3022 may be taken concurrently. 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 laboratory per week. Not for graduate credit.

## CHEM 4712 Biochemistry (3)

Same as BIOL 4712. Prerequisites: CHEM 2612 and either BIOL 1811 or CHEM 2622. The chemistry and function of cell constituents, and the interaction and conversions of intracellular substances. Three hours of lecture per week. Students may not receive credit for both BIOL 4712 and CHEM 4712.

CHEM 4722 Advanced Biochemistry (3)
Prerequisite: CHEM 4712. Selected advanced topics in the chemistry of life processes. Three hours of lecture per week.

## CHEM 4733 Biochemistry Laboratory (2)

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 three and one-half hour of laboratory per week.

## CHEM 4772 Physical Biochemistry (3)

Prerequisite: CHEM 3312 or CHEM4712/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)
Same as BIOL 4797. Prerequisite: Senior standing in the Biochemistry \& 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 5774 Bioinformatics (3)
Prerequisite: 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 (1-3)
Prerequisite: Consent of instructor. Selected topics in biochemistry. May be taken more than once for credit.
CHEM 6787 Problem Seminar in Biochemistry (1)
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 6905 Graduate Research in Chemistry (1-10)

## Department of Biology

Undergraduate Studies | Graduate Studies | Course Descriptions

## UMSL Home

Department of Biology Home Page

## Faculty

Patricia G. Parker, E. Desmond Lee Professor of Zoological Studies, Chairperson
Ph.D., University of North Carolina, Chapel Hill
Charles R. Granger, Curators' Distinguished Teaching Professor
Ph.D., University of Iowa
Elizabeth A. Kellogg, E. Desmond Lee Professor of Botanical Studies
Ph.D., Harvard University
Robert E. Ricklefs, Curators' Professor
Ph.D., University of Pennsylvania
Xuemin Wang, E. Desmond Lee Professor of Plant Science
Ph.D., University of Kentucky
Robert J. Marquis, Professor, Scientific Director, Whitney R. Harris World Ecology Center
Ph.D., University of Iowa
Peter F. Stevens, Professor
Ph.D., University of Edinburgh
Teresa Thiel, Professor; Associate Dean of Arts and Sciences
Ph.D., Case Western Reserve University
Godfrey R. Bourne, Associate Professor
Ph.D., University of Michigan
Wendy M. Olivas, Associate Professor
Ph.D., University of Nebraska Medical Center
Bethany K. Zolman, Associate Professor
Ph.D., Rice University
Lisa M. Schechter, Assistant Professor
Ph.D., Harvard University
Mindy Steiniger, Assistant Professor
Ph. D., University of Wisconsin, Madison
Aimee S. Dunlap, Assistant Professor
Ph.D., University of Minnesota
Zuleyma Tang-Martinez, Founders Professor Emerita
Ph.D., University of California-Berkeley
Robert Bader, Professor Emeritus
Ph.D., University of Chicago
James H. Hunt, Professor Emeritus
Ph.D., University of California-Berkeley
Martin Sage, Professor Emeritus
Ph. D., Nottingham University
Monroe Strickberger, Professor Emeritus
Ph.D., Columbia University, NY
Lon A. Wilkens, Professor Emeritus
Ph.D., Florida State University
Albert Derby, Associate Professor Emeritus
Ph.D., City University of New York
Harvey P. Friedman, Associate Professor Emeritus
Ph. D., University of Kansas
Lawrence D. Friedman, Associate Professor Emeritus
Ph.D., University of Wisconsin
Donald E. Grogan, Associate Professor Emeritus
Ph.D., University of Missouri-Columbia
Jane A. Starling, Associate Professor Emerita
Ph.D., The William Marsh Rice University

Patrick L. Osborne, Associate Teaching Professor, Executive Director, Whitney R. Harris World Ecology
Center
Ph.D., University of East Anglia
Marc Spingola, Assistant Teaching Professor
Ph.D., University of New Mexico
Michael Howard, Assistant Teaching Professor
Ph.D., University of Miami School of Medicine
J oseph Kamalay, Assistant Teaching Professor
Ph.D. University of California, Los Angeles
Lori L. Paul, Assistant Teaching Professor
Ph.D., Washington University
Christopher D. Wolin, Assistant Teaching Professor
Ph. D., University of California Los Angeles
Kenneth R. Mares, Lecturer
Ph.D., University of Missouri, Kansas City Sonya Bahar, Affiliate Associate Professor
Ph.D., University of Rochester

## Affiliated Faculty

Deborah A. Clark, Research Professor
Ph.D., University of Wisconsin
David B. Clark, Research Professor
Ph.D., University of Wisconsin
Terry L. Erwin, Research Professor
Ph.D., University of Alberta
Claude M. Fauquet, Research Professor
Ph.D., University of Strasbourg
William F. Laurance, Research Professor
Ph.D., University of California, Berkeley
Peter H. Raven, Research Professor;
Ph.D., University of California-Los Angeles
M. Jan Salick, Research Professor

Ph.D., Cornell University
Ihsan A. Al Shehbaz, Associate Research Professor
Ph.D., Harvard University
Bruce Allen, Associate Research Professor
Ph.D., University of Cincinnati
Eldridge Bermingham, Associate Research Professor
Ph.D., University of Georgia
Thomas B. Croat, Associate Research Professor
Ph.D., University of Kansas
Peter E. Hoch, Associate Research Professor
Ph.D., Washington University
Peter M. J orgensen, Associate Research Professor
Ph.D., Aarhus Universitet
Robert E. Magill, Associate Research Professor
Ph.D., Texas A\&M
David A. Neill, Associate Research Professor
Ph.D., Washington University
Charlotte Taylor, Associate Research Professor
Ph.D., Duke University
Hendrik H. van der Werff, Associate Research Professor
Ph.D., State University of Utrecht,
George A. Yatskievych, Associate Research Professor
Ph.D., Indiana University
James L. Zarucchi, Associate Research Professor
Ph.D., Harvard
Cheryl S. Asa, Assistant Research Professor
Ph.D., University of Wisconsin-Madison
Stanton Braude, Assistant Research Professor
Ph.D., University of Michigan
Peter M. Richardson, Assistant Research Professor
Ph.D., University of London
George E. Schatz, Assistant Research Professor
Ph.D., University of Wisconsin- Madison
Christopher G. Taylor, Assistant Research Professor
Ph.D., North Carolina State University

Maria Del Carmen Ulloa Ulloa, Assistant Research Professor
Ph.D., Aarhus Universitet
Liming Xiong, Assistant Research Professor
Ph.D., University of Arizona
Yiji Xia, Assistant Research Professor
Ph. D., Iowa State University
Matthew A. Albrecht, Adjunct Assistant Professor
Ph.D., Ohio University
Stephen Blake, Adjunct Assistant Professor
Ph.D., University of Edinburgh
Sharon Deem, Adjunct Assistant Professor
Ph.D., University of Florida
I ván Jiménez, Adjunct Assistant Professor
Ph.D., University of Missouri-St. Louis
Oliver Yu, Adjunct Associate Professor
Ph.D., University of California-San Francisco
J ames Greg Umen, Adjunct Associate Professor
Ph.D., University of South Carolina
Suzanne Renner, Adjunct Professor
Dr. rer. nat., Universität Hamburg
David Bogler, Adjunct Assistant Professor
Ph.D., University of Texas, Austin
Thomas Brutnell, Adjunct Professor
Ph.D., Yale University

## General I nformation

## 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 researchoriented 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. 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 ( $\mathrm{s} / \mathrm{u}$ ) 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, General Biology
BIOL 1013, General Biology Laboratory
BIOL 1102, Human Biology
BIOL 1131, Human Physiology and Anatomy I
BIOL 1141, Human Physiology and Anatomy II
BIOL 1162, General Microbiology
BIOL 1202, Environmental Biology
BIOL 1350, Conservation of Diversity

## 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

1) Core Courses. The following biology courses or their equivalents are required:

BIOL 1821, Introductory Biology: Organisms and the Environment
BIOL 1831, Introductory Biology: From Molecules to Organisms
BIOL 2012, Genetics
BIOL 3302, Introduction to Evolution
BIOL 3622, Cell Biology
BIOL 4889, Senior Seminar, or BIOL 4985 and BI OL 4986 for those seeking teacher certification.
One of the following diversity courses:
BIOL 2102, General Ecology or
BIOL 2402, Vertebrate Biology or

BIOL 2442, Invertebrate Biology or
BIOL 2482, Microbiology or
BI OL 2501, Biology of Plants or
BI OL 4402, Ornithology or
BIOL 4422, Entomology or
BIOL 4501, Flowering Plant Families: Phylogeny and Diversification

## 2) 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 optioncan 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 CHEM 4733 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.

1) 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 3100, Advanced Expository Writingor ENGL 3160, Writing in the Sciences strongly preferred)
2) Associated Science Area. The following courses or their equivalents must be successfully completed in science areas related to biology:

PHYSICS 1011, Basic Physics
PHYSICS 1012, Basic Physics
CHEM 1111, Introductory Chemistry I or [CHEM 1082 and CHEM 1091]
CHEM 1121, Introductory Chemistry II
CHEM 2612, Organic Chemistry I
One of the following:
CHEM 2223, Quantitative Analysis or
CHEM 2622, Organic Chemistry II or
CHEM 2633, Organic Chemistry Laboratory or
BI OL/ CHEM 4712, Biochemistry
MATH 1310, College Algebra
MATH 1035, Trigonometry
MATH 1100, Basic Calculus or MATH 1800, Analytical Geometry and Calculus
One of the following:
BIOL 4122, Biometry or
MATH 1310, Elementary Statistical Methods or
MATH 1320, Applied Statistics I or
ED REM 5730, Educational Statistics or
PSYCH 2201, Psychological Statistics

## 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
Lecture and Seminar Course Requirements

1) Core Courses. The following biology courses or their equivalents are required:

BIOL 1821, Introductory Biology: Organisms and the Environment
BIOL 1831, Introductory Biology: From Molecules to Organisms
BIOL 2012, Genetics
BIOL 3302, Introduction to Evolution
BIOL 3622, Cell Biology
BIOL 4889, Senior Seminar or BIOL 4985 and BIOL 4986 for those seeking teacher certification.
One of the following diversity courses:
BI OL 2102, General Ecology or BI OL 2402, Vertebrate Biology or
BIOL 2442, Invertebrate Biology or
BIOL 2482, Microbiology or
BI OL 2501, Biology of Plants or
BI OL 4402, Ornithology or
BI OL 4422, Entomology or
BI OL 4501, Flowering Plant Families: Phylogeny and Diversification

## 2) 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 two of these higher level courses can be used to fulfill other requirements (e.g., diversity or statistics requirements, 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 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 CHEM 4733 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.

1) 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, Introduction to Public Speaking
Writing
ENGL 3100, Advanced Expository Writing or ENGL 3160, Writing in the Sciences (strongly preferred)
2) Associated Science Area : The following courses or theirequivalents must be successfully completed:

PHYSI CS 1011, Basic Physics
PHYSICS 1012, Basic Physics
CHEM 1111, Introductory Chemistry I, or [CHEM 1082 and CHEM 1091]
CHEM 1121, Introductory Chemistry II

CHEM 2612, Organic Chemistry I
CHEM 2622, Organic Chemistry II or BIOL/ CHEM 4712, Biochemistry
CHEM 2223, Quantitative Analysis or CHEM 2633, Organic Chemistry Laboratory
MATH 1030, College Algebra
MATH 1035, Trigonometry
MATH 1100, Basic Calculus, or MATH 1800, Analytic Geometry and Calculus I
One of the following:
BIOL 4122, Biometry or
MATH 1310, Elementary Statistical Methods or
MATH 1320, Applied Statistics I or
ED REM 5730, Educational Statistics or
PSYCH 2201, Psychological Statistics
One of the following:
PHIL 2256, Bioethics or PHIL 3380, Philosophy of Science

## 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 Preprofessional/Health Sciences.

Cell and Molecular Biology Track:
BIOL 2482, Microbiology
BI OL 2483, Microbiology Laboratory
BIOL 4442, Developmental Biology
BIOL 4550, Bacterial Pathogenesis
BIOL 4602, Molecular Biology
BIOL 4612, Molecular Genetics of Bacteria
BIOL 4614, Biotechnology Laboratory I
BI OL 4615, Biotechnology Laboratory II
BIOL 4622, Cellular Basis of Disease
BIOL 4632, Nucleic Acid Structure and Function
BIOL 4642, Plant Biology and Biotechnology
BI OL 4652, Virology
BIOL 4712, Biochemistry
BIOL 4713, Techniques in Biochemistry
BIOL 4842, Immunobiology
Ecology, Evolution and Conservation Biology Track:

BIOL 2102, General Ecology
BIOL 2103, General Ecology Laboratory
BIOL 2402, Vertebrate Anatomy, Evolution and Ecology
BIOL 2403, Vertebrate Anatomy, Evolution and Ecology Laboratory
BIOL 2482, Microbiology
BI OL 2483, Microbiology Laboratory
BIOL 2501, Biology of Plants
BIOL 3102, Animal Behavior
BIOL 3103, Animal Behavior Laboratory
BIOL 3123, Tropical Resource Ecology Field Studies
BIOL 3202, Conservation Biology
BIOL 3203, Conservation Biology Laboratory
BIOL 3802, Vertebrate Physiology
BIOL 3803, Vertebrate Physiology Laboratory
BIOL 4102, Behavioral Ecology
BI OL 4112, Evolution of Animal Sociality
BIOL 4122, Biometry
BIOL 4182, Population Biology
BIOL 4192, Intro to Geographic Information Systems
BIOL 4222, Tropical Ecology and Conservation
BIOL 4245, Field Biology
BIOL 4270, Global Climate Change
BIOL 4299, Practicum in Conservation
BIOL 4402, Ornithology
BIOL 4403, Ornithology Laboratory
BIOL 4422, Entomology
BIOL 4423, Entomology Laboratory
BIOL 4501, Flowering Plant Families Phylogeny and Diversification
Pre-professional/Health Sciences Track:
BIOL 2402, Vertebrate Anatomy, Evolution and Ecology
BIOL 2403, Vertebrate Anatomy, Evolution and Ecology Laboratory
BIOL 2482, Microbiology
BIOL 2483, Microbiology Laboratory
BIOL 3802, Vertebrate Physiology
BIOL 3803, Vertebrate Physiology Laboratory
BIOL 4442, Developmental Biology
BIOL 4550, Bacterial Pathogenesis
BIOL 4602, Molecular Biology
BIOL 4622, Cellular Basis of Disease
BIOL 4652, Virology
BIOL 4712, Biochemistry
BI OL 4822, Intro to Neuroscience
BIOL 4842, Immunobiology

## 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 BIOL 4985, Curriculum and Methods of Teaching Life Sciences, and BI OL 4986, Laboratory in Teaching Life Sciences, are substituted for BIOL 4889, 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, Senior Seminar, and in addition, completing the following courses:

PSYCH 1003, General Psychology
ED FND 1111, The School in Contemporary Society
ENGL 3160, Writing in the Sciences
HIST 1001, 1002, or 1003, American Civilization
POL SCI 1100, Introduction to American Politics
PHIL 3380, Philosophy of Science
COMM 1040, Introduction to Public Speaking
TH DAN 1210, Fundamentals of Acting
GEOL 1001, General Geology
ATM SC 1001, Elementary Meteorology
ED PSY 3312, The Psychology of Teaching and Learning
ED TEC 2248, Utilization of Computer-Based Materials in Instruction
SEC ED 3213, Techniques of Secondary School Teaching and Field Experiences OR

TCH ED 3310, Introduction to Instructional Methods
SPEC ED 3313, The Psychology and Education of Exceptional Individuals
SEC ED 4391, Teaching Reading in Secondary School

## Content Areas

BIOL 4985, Curriculum and Methods of Teaching Life Sciences
BI OL 4986, Laboratory in Teaching Life Sciences
SEC ED 3290, Secondary School Student Teaching
BIOL 4999, Science Teaching Intern Seminar
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.

## Minor in Biology

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.

## Requirements are:

BIOL 1821, Introductory Biology: Organisms and the Environment, BIOL 1831, Introductory Biology: From Molecules to Organisms, and BIOL 2012, Genetics. Two additional courses totaling no less than 6 credit hours. At least one course should be at the 3000 level or above.

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 Biology 1202 (Environmental Biology) and Political Science (3480) 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, Introduction to Biological Anthropology
ANTHRO 3270, Human Ecology, Cultural Collapse and Sustainability
BIOL 1202, Environmental Biology
BIOL 1821, Introductory Biology: Organisms and the Environment
BIOL 2102, General Ecology
BIOL 2103, General Ecology Laboratory
BIOL 2501, Biology of Plants
BIOL 3122, Tropical Resource Ecology
BIOL 3202, Conservation Biology
BIOL 3203, Conservation Biology Laboratory
BIOL 3302, Introduction to Evolution
BIOL 4102, Behavioral Ecology
BIOL 4192, Applications of Geographic Information Systems
BIOL 4222, Tropical Ecology and Conservation
BIOL 4245, Field Biology
BIOL 4270, Global Climate Change
BI OL 4402, Ornithology
BIOL 4422, Entomology
BIOL 4501, Plant Families
ECON 4160, Geospatial Analysis in the Social Sciences
ECON 4170, Cost-Benefit Analysis
ECON 4550, Natural Resource Economics
GEOL 1002, Historical Geology
HONORS 2050, Inquiries in the Natural Sciences (when topic appropriate)
HONORS 2051, Inquires in the Sciences: Laboratory or Fieldwork (when topic appropriate)
I NTBUS 4281/ I NTBUS, 5198 Entrepreneurship in the Global Environment
PHIL 2255, Environmental Ethics
POL SCI 3480, Environmental Politics
POL SCI 3595, Studies in Comparative Politics (when topic appropriate)
POL SCI 3850, International Organizations \& Global Problem Solving (when topic appropriate)

POL SCI 3900, Special Readings (when topic appropriate)
POL SCI 4460, Urban Planning and Politics

## 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
BIOL/ CHEM 4712, Biochemistry
CHEM 2223, Quantitative Analysis
CHEM 2633, Organic Chemistry Laboratory
BIOL 4713, Techniques in Biochemistry or CHEM 4733, Biochemistry Laboratory
CHEM 4722, Advanced Biochemistry
And three of the following biology courses:
BIOL 2482, Microbiology
BI OL 2483, Microbiology Laboratory
BIOL 3642, Development
BIOL 4602, Molecular Biology
BIOL 4612, Molecular Genetics of Bacteria
BI OL 4614, Biotechnology Laboratory I
BIOL 4622, Cellular Basis of Disease
BIOL 4632, Nucleic Acid Structure and Function
BIOL 4842, Immunobiology

## 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
BIOL 2482, Microbiology
BI OL 2483, Microbiology Laboratory
CHEM 2622, Organic Chemistry II
BIOL 4614, Biotechnology Laboratory I
BIOL/ CHEM 4712 , Biochemistry
BIOL 4713, Techniques in Biochemistry or CHEM 4733, Biochemistry Laboratory
One of the following courses:
BI OL 4602, Molecular Biology
BI OL 4612, Molecular Genetics of Bacteria
And one of the following courses:
BIOL 4615, Biotechnology Laboratory II
BIOL 4622, Cellular Basis of Disease
BIOL 4632, Nucleic Acid Structure and Function
BI OL 4652, Virology
BIOL 4842, Immunobiology
CHEM 4722, Advanced Biochemistry

## 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.

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Core Courses
Biology
BIOL 2102, General Ecology
BIOL 3202,Conservation Biology
BIOL 3203, Conservation Biology Laboratory
BIOL 4299, Practicum in Conservation
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Electives: The remaining 11 credits must be selected from courses listed below. 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
ANTHRO 2131, Archaeology of Missouri
ANTHRO 2132, Archaeology of North America

## Biology

BIOL 3122, Tropical Resource Ecology
BIOL 3123, Tropical Resource Ecology Field Studies
BIOL 4102, Behavioral Ecology
BI OL 4112, Evolution of Animal Sociality
BI OL 4182, Population Biology
BIOL 4202, Wildlife Ecology and Conservation
BIOL 4245, Field Biology
BI OL 4382, Introduction to Marine Science
BIOL 4402, Ornithology
BIOL 4403, Ornithology Laboratory
BI OL 4422, Entomology
BIOL 4423, Entomology Laboratory
BIOL 4501, Flowering Plant Families Phylogeny and Diversification

## Economics

ECON 3300, International Economic Analysis
ECON 3301, Intermediate Economic Theory:
ECON 4550, Natural Resource Economics

## History

HI ST 3000, Selected Topics, when relevant
Political Science
POL SCI 3480, Environmental Politics
POL SCI 3590, Studies in Comparative Politics, when relevant
POL SCI 3850, International Organizations and Global Problem Solving
POL SCI 4510, Comparative Public Policy and Administrations

## 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 $B S$ 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 (33):
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 (3):
MATH 1310, Elementary Statistical Methods; or
MATH 1320, Applied Statistics I or
BIOL 4122, Biometry
COMM 1040, Introduction to Public Speaking (3)
ENGL 1100, Freshman Composition (3)
ENGL 3160, Writing in the Sciences (3)
Major (58):
Foundation courses
BI OL 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)
BI OL/ CHEM 4712 , Biochemistry (3)
BIOL 4889, Senior Seminar (2)
PHYSI CS 1011, Basic Physics (4)
PHYSICS 1012, Basic Physics (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)
PHI L 2256, Bioethics (3)
MATH 1030, College Algebra (3)
MATH 1035, Trigonometry (2)
Choose (3-5):
MATH 1100 Basic Calculus (3); or MATH 1080 Analytical Geometry\& Calculus I (5)
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)

## 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 two ways of achieving the Master of Science degree. The first is a 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 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 non-thesis or 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.

## 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. Thesis students are required to take BIOL 5089, 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.

## 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.

## 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 Selected Topics can be given to graduate students for BIOL 2012 or BI OL $\mathbf{3 3 0 2}$ 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 5089, 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

1. At least 6 credits of BIOL 6889, Graduate Seminar
2. One credit of BIOL 5179, Ethics in Biology (to be taken the first semester)
3. BIOL 4122 , 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 Biometry.

The maximum number of credit hours that may be applied toward the 60-hour requirement is limited as stated below:
BIOL 6889, Graduate Seminar: 10 hours
BIOL 6905, Graduate Research: 30 hours
A combination of 6 total credit hours of the following:
BIOL 5059, Topics in Ecology, Evolution, and Systematics
BIOL 5069, Topics in Cellular and Molecular Biology
BIOL 5079, 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:

BI OL 5312, Theory of Systematics (3 credit hours)
BIOL 6182, Advanced Population Biology ( 3 credit hours)
BIOL 5192, Community Ecology (3 credit hours)

## Cellular and Molecular Biology:

Three of the following:
BIOL 6602, Advanced Molecular Biology ( 3 credit hours)
BIOL 6612, Advanced Molecular Genetics of Bacteria (3 credit hours)
BIOL 6615, Advanced Biotechnology Laboratory II (4 credit hours)
BI OL 6622, Advanced Cellular Basis of Disease ( 3 credit hours)
BIOL 6632, Advanced Nucleic Acid Structure and Function (3 credit hours)
BI OL 6642, Advanced Plant Molecular Biology and Genetic Engineering (3 credit hours)
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 (Biology 6905) 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 $\mathbf{1 8}$ credit hours of course work.

## Requirements

I. BIOL 6615, Advanced Biotechnology Laboratory II
II. BIOL 6602, Advanced Molecular Biology or BIOL 6612, Advanced Molecular Genetics of Bacteria (If both Group II courses are taken, one may be used as elective credit)
III. The remaining 11 credit hours must be taken from the following electives:

Biology
BIOL 4712, Biochemistry
BIOL 4842, Immunobiology
BIOL 5069, Topics in Cellular and Molecular Biology
BIOL 6550, Advanced Bacterial Pathogenesis
BIOL 6612, Advanced Molecular Genetics of Bacteria (if not taken as a required course)
BIOL 6622, Advanced Cellular Basis of Disease
BIOL 6632, Advanced Nucleic Acid Structure and Function
BIOL 6642, Advanced Plant Molecular Biology and Genetic Engineering
BIOL 6652, Advanced Virology
BIOL 6699, Graduate Internship in Biotechnology
BIOL 6889, Graduate Seminar, when relevant
BIOL 6915, Graduate Research Practicum
BIOL 6920, Topics in Biology, when relevant

## Chemistry

CHEM 4722, Advanced Biochemistry
CHEM 4733, Biochemistry Laboratory
CHEM 4772, Physical Biochemistry

## 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, Public Policy of Conservation and Sustainable Development, OR
POL SCI 6452, Public Policy of Conservation and Sustainable Development
BIOL 6299, Internship in Conservation Biology ( may be replaced with a biology elective for individuals with applied conservation or environmental agency experience upon consent of the Graduate Committee).

## Choice of:

BIOL 6212, Theory and Application of Conservation Biology
BIOL 6222, Advanced Tropical Ecology and Conservation

## Electives:

Biology
BIOL 4182, Population Biology
BIOL 4202, Wildlife Ecology and Conservation
BI OL 4402, Ornithology
BIOL 4422, Entomology
BI OL 4501, Flowering Plant Families Phylogeny and Diversification
BIOL 5122, Advanced Tropical Resource Ecology
BIOL 5123, Advanced Tropical Resource Ecology Field Studies
BIOL 5192, Community Ecology
BIOL 6102, Advanced Behavioral Ecology
BIOL 6112, Advanced Evolution of Animal Sociality
BIOL 6182, Advanced Population Biology
BIOL 6192, Applications of Geographic Information Systems
BIOL 6212, Theory and Application of Conservation Biology
BIOL 6222, Advanced Tropical Ecology and Conservation
BIOL 6889, Graduate Seminar, when relevant
Economics
ECON 3300, International Economic Analysis
ECON 4550, Natural Resource Economics
History
HIST 3000, Selected Topics in History, when relevant
HIST 6114, Readings in Latin American History, when relevant
HI ST 6115, Readings in African History, when relevant
Political Science
POL SCI 3480, Environmental Politics
POL SCI 3595, Studies in Comparative Politics, when relevant
POL SCI 3830, International Political Economy
POL SCI 3850, International Organizations and Global Problem Solving
POL SCI 3890, Studies in International Relations
POL SCI 4510, Comparative Public Policy and Administration
POL SCI 4850, International law
POL SCI 4940, Leadership and Management in Nonprofit Organizations
POL SCI 6448, Political Economy and Public Policy
POL SCI 6480, Proseminar in International Relations

## Social Work

SOC WK 4950, Seminar in Social Work Issues, when relevant

# Department of Chemistry and Biochemistry 

Undergraduate Studies \| Graduate Studies | Course Descriptions

## UMSL Home

Department of Chemistry and Biochemistry Home Page

## Faculty

Christopher D. Spilling, Professor, Chairperson
Ph.D., The University of Technology, Loughborough, UK
George Gokel, Distinguished Professor, Director of the Center for Nanoscience
Ph.D., University of Southern California
Robert W. Murray, Curators' Professor Emeritus
Ph.D., Yale University
Lawrence Barton, Professor Emeritus
Ph.D., University of Liverpool
J ames Bashkin, Professor
Oxford University, UK
J ames S. Chickos, Professor
Ph.D., Cornell University
J oyce Y. Corey, Professor Emerita
Ph.D., University of Wisconsin
Thomas F. George, Professor and Chancellor
Ph.D., Yale University
Wesley R. Harris, Professor
Ph.D., Texas A. and M. University
David W. Larsen, Professor Emeritus
Ph.D., Northwestern University
James J. O'Brien, Professor
Ph.D., Australian National University
Keith J. Stine, Professor, Director of Undergraduate Studies
Ph.D., Massachusetts Institute of Technology
Alicia M. Beatty, Associate Professor
Ph.D., Washington University
Alexei V. Demchenko, Professor
Ph.D., Zelinsky Institute for Organic Chemistry, Moscow
Valerian T. D'Souza, Associate Professor
Ph.D., University of Detroit
Cynthia M. Dupureur, Professor
Ph.D., Ohio State University
David L. Garin, Associate Professor Emeritus
Ph.D., Iowa State University
Harold H. Harris, Founder's Associate Professor
Ph.D., Michigan State University
Stephen M. Holmes, Associate Professor, Director of Graduate Studies
Ph.D., University of Illinois-Urbana-Champaign
Jane A. Miller, Associate Professor Emerita
Ph.D., Tulane University
Rudolph E. K. Winter, Associate Professor Emeritus
Ph.D., The Johns Hopkins University
Zhi Xu, Associate Professor
Ph.D., University of Pittsburgh
Eike Bauer,Associate Professor
Ph.D., University of Erlangen-Nuremberg, Germany
Michael R. Nichols, Associate Professor
Ph.D., Purdue University
J anet B. Wilking, Associate Professor
Ph.D., Washington University

Chung F. Wong, Associate Professor<br>Ph.D., University of Chicago<br>Nigam P. Rath, Research Professor<br>Ph.D., Oklahoma State University<br>Rensheng Luo, Research Assistant Professor<br>Ph.D., Wahan Institute of Physics and Mathematics Chinese Academy of Sciences<br>Anthony Mannino, Adjunct Associate Professor<br>Ph.D., Ohio State University<br>John Gutweiler, Lecturer<br>Ph.D., Saint Louis University<br>Bruce Hamper, Teaching Assistant Professor<br>Ph.D., University of Illinois-Urbana-Champaign<br>Technical Staff<br>J oseph Kramer, Spectrometrist<br>Daniel Cranford, Coordinator, Laboratory Operations<br>Frank L. May, Research Investigator<br>Bruce Burkeen, Senior Research Engineering Technician<br>J oe Flunker, Glassblower

## 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 to 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 nonthesis option provides a convenient way for students who are employed full-time to earn an advanced degree. 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. There are two such scholarships available.

The Friends and Alumni Scholarship is given to a full-time student with high financial need and pursuing a chemistry degree. There are two such scholarships available.

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 predental 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. 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.

## 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, Introductory Chemistry I
CHEM 1121, Introductory Chemistry II
CHEM 2223, Quantitative Analysis
CHEM 2612, Organic Chemistry I
CHEM 2622, Organic Chemistry II
CHEM 2633, Organic Chemistry Laboratory
CHEM 3022, Introduction to Chemical Literature
CHEM 3312, Physical Chemistry I
CHEM 3322, Physical Chemistry II
CHEM 3333, Physical Chemistry Laboratory
CHEM 3412, Basic Inorganic Chemistry
CHEM 4897, Seminar (1 credit)

In addition, candidates must complete one laboratory course chosen from CHEM 3643, 4233, 4343, 4433, or 4733.

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, Biochemistry
CHEM 4722, Advanced Biochemistry
CHEM 4733, Biochemistry Laboratory
CHEM 4772, Physical Biochemistry

## Biology

BIOL 1831, Introductory Biology: From Molecules to Organisms
BIOL 2012, Genetics
BIOL 3622, Cell Biology
BIOL 4602, Molecular Biology or BIOL 4614, Biotechnology Laboratory I
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 to the curriculum described above. The Biology department also offers a certificate in biochemistry.

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 $3 x x x$ 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.

## 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, Advanced Organic Chemistry Laboratory
CHEM 4212, I nstrumental Analysis
CHEM 4233, Laboratory in Instrumental Analysis
CHEM 4343, Physical Chemistry Laboratory II
CHEM 4412, Advanced Inorganic Chemistry
CHEM 4433, I norganic Chemistry Laboratory
CHEM 4712, Biochemistry
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, 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, Advanced Organic Chemistry Laboratory
CHEM 4212, Instrumental Analysis
CHEM 4233, Laboratory in Instrumental Analysis
CHEM 4712, Biochemistry
CHEM 4722, Advanced Biochemistry
CHEM 4733, Biochemistry Laboratory
CHEM 4772, Physical Biochemistry or
3 credits of CHEM 3905: Chemical Research, or
3 credits of BIOL 4905: Research

Biology
BIOL 1831, Introductory Biology: From Molecules to Orgnaisms
BIOL 2012, Genetics or
BIOL 3622, Cell Biology

## Related Area Requirements

Bachelor of Arts and Bachelor of Science in Chemistry
Candidates for both degrees must also complete:
MATH 1800, Analytic Geometry and Calculus I
MATH 1900, Analytic Geometry and Calculus II
MATH 2000, Analytic Geometry and Calculus III
PHYSI CS 2111, Physics: Mechanics and Heat
PHYSICS 2112, Physics: Electricity, Magnetism, and Optics
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, Philosophy of Science
BIOL 1831, Introductory Biology I: From Molecules to Organisms
CHEM 1111, Introductory Chemistry I
CHEM 1121, Introductory Chemistry II
BIOL 1202, Environmental Biology, or another environmental science
PHYSI CS 2111, Physics: Mechanics and Heat
and
GEOL 1001, General Geology or
ATM SCI 1001, Elementary Meteorology or
ASTRON 1001 or equivalent
Chemistry Endorsement
CHEM 2223, Quantitative Analysis
CHEM 2612, Organic Chemistry I
CHEM 2622, Organic Chemistry II
CHEM 2633, Organic Chemistry Laboratory
CHEM 3312, Physical Chemistry I or CHEM 3302, Physical Chemistry for the Life Sciences
CHEM 4712, Biochemistry
CHEM 4802 or SEC ED 3240, Curriculum and Methods of Teaching Physical Sciences
CHEM 4837, Chemistry/Physics Teaching Intern Seminar
SEC ED 4990, Secondary School Student Teaching

## 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
CHEM 3322, Physical Chemistry II
CHEM 3333, Physical Chemistry Laboratory I and one additional advanced laboratory course
CHEM 3412, Basic Inorganic Chemistry
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
CHEM 1121, Introductory Chemistry II
CHEM 2223, Quantitative Analysis
CHEM 2612, Organic Chemistry I
CHEM 2633, Organic Chemistry Laboratory

One course from the following list must be completed:
CHEM 2622, Organic Chemistry II
CHEM 3312, Physical Chemistry I
CHEM 3412, Basic Inorganic Chemistry
CHEM 4712, Biochemistry same as Biology 4712
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. Information about this degree program may be found at the Biochemistry \& Biotechnology Programs Home Page.

## 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 (5)
BI OL 1821, Introductory Viology: Organisms and the Environment (5)
MATH 1800, Analytic Geometry \& Calculus (5)
2nd Semester (18)
CHEM 1121, Introductory Chemistry II (5)
BIOL 1831, Introductory Viology: From Molecules to Organisms (5)
MATH 1900, Analytic Geometry \& Calculus II (5)
+PSYCH 1003, General Psychology (3)
Summer Option
Summer Semester (3-8)
CHEM 2612, Organic Chemistry I (3)
CHEM 2622, Organic Chemistry II (3)
CHEM 2633, Organic Chemistry Laboratory (2)

* Or General Education Courses

3rd Semester (13+)
MATH 2000, Analytic Geometry \& Calculus III (5)
PHYSICS 2111, Physics: Mechanics \& Heat (5)
** CHEM 2612, Organic Chemistry I (3)
*General Education Courses
4th Semester (15)
PHYSI CS 2112, Physics: Elec, Mag \& Optics Chem (5)
CHEM 2223, Quantitative Analysis (3)
CHEM 3412, Basic Inorganic Chemistry (2)
** CHEM 2622, Organic Chemistry II (3)
** CHEM 2633, Organic Chemistry Laboratory (2)

## Summer Option

Summer Semester (3-8)
CHEM 2612, Organic Chemistry I (3)
CHEM 2622, Organic Chemistry II (3)
CHEM 2633, Organic Chemistry Laboratory (2)
*Or General Education Courses
5th Semester (13+)
CHEM 3022, I ntro. To Chemical Literature (1)
CHEM 3312, Physical Chemistry I (3)
\#CHEM 4712, Biochemistry (3)
\#CHEM 4733, Biochemistry Laboratory (2)
+PSYCH 2201, Psychological Statistics (4)
*General Education Course
6th Semester (11+1)
CHEM 3333, Physical Chemistry Lab I (2)
CHEM 3322, Physical Chemistry II (3)
CHEM 4897, Seminar (1)

## Summer Option Summer Semester <br> *General Education Courses

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 (Physical Chemistry II and CHEM 4897 (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, 2622, 2633) that also are scheduled for the 3rd and 4th semester. Alternatively, General Education courses can be taken in the summer.

+ The College of Optometry requires two courses in English [e.g., Freshman Composition (ENGL 1100), junior English courses (e.g., ENGL 3160, 3100)] 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, 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) also satisfies one of the three-course requirement in Social and Behavioral Sciences Knowledge (see not below on General Education courses).
\# The College of Optometry strongly recommends a course in Anatomy or Physiology and a course in Biochemistry. BIOL 1102 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, Cell Biology, 3 credits)- this is not listed above either.
** CHEM 2612, 2622, and 2633 are courses offered during the summer; currently, CHEM 2223 is not.
*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.

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 problemsolving 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 chemistry 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. For further information, contact the Graduate Studies Committee, Department of Chemistry and Biochemistry.

## 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.

## Distribution Requirement

All graduate students (M.S. and Ph.D.) must fulfill the distributing requirements as described under "Doctoral Degree Requirements."

## Master's Degree Requirements

## Master of Science in Chemistry

Candidates for the M.S. degree in chemistry must demonstrate proficiency in organic, inorganic, physical, and analytical chemistry within two years of initial enrollment.

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 required minimum of 30 credit hours.

## 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 CHEM 6905 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.

## Doctoral Degree Requirements

Incoming doctoral students must demonstrate proficiency in biochemistry, organic, inorganic, physical, and analytical chemistry within one year of initial enrollment. A minimum of 60 hours is required, including research hours.

## Distribution Requirement

Students must take chemistry courses for graduate credit at the 4000 and 5000 levels. Students may choose to concentrate the majority of their coursework in one of four areas (biochemistry, inorganic chemistry, organic chemistry, or physical chemistry). Students must complete at least 6 hours of chemistry coursework in one (or more) sub-disciplines(s) outside of their major emphasis area. The following courses may not be used to fulfill the distribution requirement: Chem. 4212, 4233, 4302, 4343, 4412, and 4433.

## Qualifying Examinations

In addition to the requirements set forth by the Graduate School, each student seeking the Ph.D. degree must successfully complete a qualifying examination in his/her major area of specialization prior to advancement to candidacy. The format of the qualifying examination depends upon the student's major area of emphasis (biochemistry, inorganic, organic or physical). In general, the qualifying examination consists of either comprehensive written and/or oral examinations, usually administered near the end of the 4th semester, or a series of cumulative examinations given eight times a year. In the latter case, a student must pass a minimum of two cumulative examinations per year and eight cumulative examinations before the end of the 6th semester. At least six of these cumulative examinations must be in the student's major area of specialization. For more detailed information, contact the Director of Graduate Studies in the Department of Chemistry \& Biochemistry.

## Seminar Requirement

Students must present a seminar in their third year and during each subsequent year. The third year seminar may be the defense of the doctoral dissertation proposal. One of the seminars is for the purpose of describing dissertation research. Students must enroll in Chemistry 6897, Chemistry Colloquium, each semester they are in residence.

## Advancement to Candidacy

In addition to general Graduate School requirements for advancement to candidacy, students must complete the following:

1) 21 hours of nondissertation work. This may not include:

CHEM 4212, Instrumental Analysis
CHEM 4233, Laboratory in Instrumental Analysis
CHEM 4302, Survey of Physical Chemistry with Application to the Life Sciences
CHEM 4343, Physical ChemistryLaboratory II
CHEM 4412, Advanced Inorganic Chemistry
CHEM 4433, Inorganic Chemistry Laboratory
CHEM 6196, Advanced Reading in Chemistry
CHEM 6487, Inorganic Problem Seminar
CHEM 6687, Organic Problem Seminar
CHEM 6787, Biochemistry Problem Seminar
CHEM 6812, Introduction to Graduate Study in Chemistry
CHEM 6822, I ntroduction to Graduate Research in Chemistry
CHEM 6897, Chemistry Colloquium
but should include at least six credit hours of coursework outside of their major area of emphasis (see Distribution Requirement)
Courses in areas other than chemistry may be included with prior departmental approval.
2) Successfully pass a qualifying examination or cumulative examinations.
3) Present at least one seminar to the department on the dissertation research.
4) Participate in the undergraduate academic program as a teaching assistant for at least one semester.
5) Be in good standing.

## Dissertation

Three copies 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 qualifying 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. Information about this degree program may be found at the Biochemistry \& Biotechnology Programs Home Page.

## Course Descriptions

Prerequisites may be waived by consent of the department or instructor. Some courses as indicated in the course description may be taken concurrently with the listed offering. Consult your department adviser for further information.

## CHEM 1011 Chemistry in the Environment and Everyday Living (3) [MI, MS]

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) [MI, MS]

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 nor 1062 in the 120 hours required for graduation. Four hours of lecture per week.

CHEM 1062 Organic and Biochemistry for the Health Professions (2) [MI, MS]
Prerequisite: 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 1111 I ntroductory Chemistry I (5) [MS]
Prerequisites: 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 and one and one half hours of workshop, and three hours of laboratory per week.

CHEM 1121 Introductory Chemistry II (5) [ MI, MS]
Prerequisite: CHEM 1111 or advanced placement. Lecture and laboratory are a continuation of CHEM 1111. Three hours of lecture and one and one half hours of workshop, and three hours of laboratory per week.

## CHEM 1134 Special Topics in I ntroductory Chemistry (1-5)

Prerequisite: Consent of instructor. A lecture or laboratory course to assist transfer students in meeting the requirements 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) [C, MI, MS]
Prerequisite: 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 acidbase, 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) [MS]
Prerequisite: CHEM 1121. 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) [MI, MS]
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) [C, MS]
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)

Prerequisites: CHEM 2622 (may be taken concurrently) and CHEM 3412. The 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)
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 requirement for other Chemistry B.A. and B.S. degree programs.

## CHEM 3312 Physical Chemistry I (3)

Prerequisites: CHEM 1121 and MATH 2000 (may be taken concurrently), and PHYSICS 2111. Principles of hysical 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)
Prerequisite: CHEM 3312 and MATH 2000. Continuation of CHEM 3312. Three hours of lecture per week.
CHEM 3333 Physical Chemistry Laboratory I (2)
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) [MI, MS]
Prerequisite: CHEM 1121. Review of principles of atomic structure, covalent and ionic bonding. Properties of the elements and synthesis reactions and boding aspects of important compounds of main group and transition metal elements. Two hours lecture per week.

CHEM 3643 Advanced Organic Chemistry Laboratory (2)
Prerequisites: CHEM 2223, CHEM 2622, CHEM 2633. CHEM 3022 may be taken concurrently. 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 laboratory per week. Not for graduate credit.

## CHEM 3905 Chemical Research (1-10)

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)
Prerequisite: 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 I nstrumental Analysis (2)

Prerequisites: CHEM 4212 and 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)

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 4302 will have additional assignments or projects. No student may receive credit for both CHEM 3302 and 4302.

## CHEM 4343 Physical Chemistry Laboratory II (2)

Prerequisites: CHEM 3322 (may be taken concurrently) and CHEM 3333. Experiments designed to illustrate principles introduced in CHEM 3322. One hour of lecture and four and one-half hours of laboratory per week. Not for graduate credit.

## CHEM 4412 Advanced I norganic Chemistry (3)

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 I norganic Chemistry Laboratory (2)
Prerequisites: CHEM 3333, CHEM 4412 and CHEM 3643, (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 I dentification of Organic Compounds (3)

Prerequisite: 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 13C and 1 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)

Same as BIOL 4712. Prerequisites: CHEM 2612 and either BIOL 1811 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)
Prerequisite: CHEM 4712. Selected advanced topics in the chemistry of life processes. Three hours of lecture per week.

## CHEM 4733 Biochemistry Laboratory (2)

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)

Prerequisite: CHEM 3312 or CHEM4712/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)

Same as BIOL 4797. Prerequisite: 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 4802 Curriculum and Methods of Teaching Physical Sciences (3)

Prerequisites: TCH ED 3310 and a near major in the subject matter. 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 prior to student teaching. This course must be completed in residence.

## CHEM 4814 Special Topics in Chemistry (1-10)

Prerequisite: Consent of instructor. A reading and seminar course in selected advanced topics.

## CHEM 4837 Chemistry / Physics Teaching Intern Seminar (1)

Same as PHYSICS 4837. Prerequisite: CHEM 4802 or PHYSICS 4800. A seminar to accompany student teaching covering integration of physical science curricula and methods into the classroom setting. To be taken concurrently with Secondary Student Teaching, SEC ED 3290. One-hour discussion per week.

## CHEM 4897 Seminar (1)

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 is a course requirement. One hour of lecture and one hour of discussion per week.

## CHEM 5394 Special Topics in Physical Chemistry (1-3)

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)

Prerequisite: 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 though the particular topic must be different in each case.

CHEM 5422 Coordination Chemistry (3)
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)
Prerequisite: CHEM 4412 or an equivalent course. A study of the transition metal compounds containing metalcarbon 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 I norganic Chemistry (1-3)
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)
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)

Prerequisite: CHEM 2622. Examination of 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)

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 of organic synthesis, organometallics in organic synthesis, topics in bio-organic chemistry, organic thermochemistry, natural products chemistry, stereochemistry, photochemistry, heterocyclic chemistry, medicinal chemistry.

CHEM 5774 Bioinformatics (3)
Prerequisite: 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 (1-3)
Prerequisite: Consent of instructor. Selected topics in biochemistry. May be taken more than once for credit.
CHEM 6196 Advanced Reading in Chemistry (1)
Prerequisite: Admission to the Ph.D. degree program. Reading and examinations in the subdisciplines of chemistry. Enrollment must begin after completion of any course deficiencies.

CHEM 6487 Problem Seminar in I norganic Chemistry (1)
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. credit. Up to three credits may be applied to the M.S. degree program.

CHEM 6687 Problem Seminar in Organic Chemistry (1)
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 program.

## CHEM 6787 Problem Seminar in Biochemistry (1)

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 I ntroduction to Graduate Study in Chemistry (1)

Prerequisite: Consent of Graduate Adviser. Topics to be covered include: techniques of teaching of Chemistry in colleges and universities, methods of instruction and evaluation; and responsibilities of the Graduate Teaching Assistant in laboratory instruction; safety in the undergraduate laboratory, safety practices, emergency procedures; selection of research project and thesis adviser.

CHEM 6822 I ntroduction to Graduate Research in Chemistry (1)
Prerequisite: Consent of Graduate Adviser. Topics 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 6897 Chemistry Colloquium (1)

Presentation of papers by students, faculty, and invited speakers. One hour per week.
CHEM 6905 Graduate Research in Chemistry (1-10)

# Department of Criminology and Criminal Justice 

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## Faculty

Finn-Aage Esbensen, E. Des Lee Professor of Youth Crime and Violence, Chairperson
Ph.D., University of Colorado
Robert Bursik, Curators' Professor
Ph.D., University of Chicago
Richard Rosenfeld, Curators' Professor
Ph.D., University of Oregon
Richard Wright, Curators' Professor
Ph.D., University of Cambridge
J anet L. Lauritsen, Professor
Ph.D., University of Illinois-Urbana
Beth Marie Huebner, Associate Professor, Ph.D. Director
Ph.D., Michigan State University
David Klinger, Associate Professor
Ph.D., University of Washington
Michael Campbell, Assistant Professor
Ph.D., University of California, Irvine
Kristin Carbone-Lopez, Assistant Professor
Ph.D., University of Minnesota
Stephanie DiPietro, Assistant Professor
Ph.D., University of Maryland
Lee Ann Slocum, Assistant Professor
Ph.D., University of Maryland
Terrance J. Taylor, Assistant Professor
Ph.D. University of Nebraska
Matt Vogel, Assistant Professor
Ph.D., University at Albany
Timothy Maher, Associate Teaching Professor, Undergraduate Director, Undergraduate Advisor
Ph. D., University of Missouri-St. Louis
G. David Curry, Professor Emeritus

Ph.D., University of Chicago
Allen E. Wagner, Associate Professor Emeritus
Ph.D., Washington University
Dena Carson, Assistant Research Professor
Ph.D. University of Missouri-St. Louis
Criminology and criminal justice faculty represent several academic disciplines. By integrating practice with theory, faculty members are able to present a comprehensive picture of crime and the justice system. This nexus of theory and application is found most directly in the department's emphasis on understanding policy in criminology and criminal justice. All components of crime and justice are represented in the curriculum including criminal behavior, delinquency, crime prevention, arrest, prosecution, defense, court processing, probation, prison, and parole. A special feature of the program is the cadre of local professionals who supplement the regular faculty.

## 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.

## I nternships

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.

## Undergraduate Studies

## General Education Requirements

Majors must satisfy the university and college general education requirements. 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

1. Acquire basic knowledge of the theories, methods and substance of issues in criminology and criminal justice.
2. Develop critical thinking skills through the application of criminological theory and social science research methods.
3. Develop fundamental understanding of interdisciplinary underpinnings (e.g., from sociology, psychology, political science, economics) of criminology and criminal justice issues and policies.
4. Acquire knowledge about the structure and functioning of the fundamental institutions (e.g., legislatures, police, punishment, supervisory) that are part of criminal justice systems.
5. 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:
CRI MI N 1100, Introduction to Criminology and Criminal Justice
CRI MI N 1110, Theories of Crime
CRI MI N 1120, Criminal Law
CRI MI N 2130, Criminal J ustice Policy
CRIMIN 2210, Research Methods in Criminology and Criminal Justice
CRI MI N 2220, Statistical Analysis in Criminology and Criminal Justice
CRI MI N 4390, Seminar in Criminology and Criminal Justice
One course from the following three:
CRI MI N 2240, Policing

CRI MI N 2250, The Courts
CRI MI N 2260, Corrections
One of the following courses in Criminology and Criminal Justice:
CRI MI N 3305, Comparative Criminology and Criminal J ustice
CRIMIN 4325, Gender, Crime, and J ustice
CRI MI N 4330, Violence Against Women
CRI MI N 4340, Race, Crime, and J ustice
Three additional courses at the 3000, 4000, or 5000 level:
CRI MI N 3043, History of Crime and J ustice
CRIMIN 3230, Crime Prevention
CRI MI N 3270, Juvenile J ustice and Delinquency
CRI MI N 3305, Comparative Criminology and Criminal Justice
CRI MI N 3310, Computers in Criminal Justice
CRIMIN 3320, The Death Penalty
CRI MI N 3330, White Collar Crime
CRIMIN 3345, Rights of the Offender
CRI MI N 4300, Communities and Crime
CRI MI N 4320, Forms of Criminal Behavior
CRI MI N 4325, Gender, Crime, and J ustice
CRI MI N 4330, Violence Against Women
CRI MI N 4335, Probation and Parole
CRI MI N 4340, Race, Crime, and J ustice
CRI MI N 4350, Victimology
CRI MI N 4380, Special Topics in Criminology and Criminal Justice
Elective Courses
CRI MI N 1150, Violence in America
CRIMIN 2180, Alcohol, Drugs and Society
CRIMIN 2251, Youth Gangs
CRIMIN 2265, Capital Punishment
CRIMIN 3280, Internship in Criminology and Criminal Justice
CRI MI N 3290, Special Readings
Candidates must earn a minimum grade of (C-) in the following courses: CCJ 2220 Statistical Analysis in Criminology and Criminal Justice, and CCJ 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:
CRIMIN 1100, Introduction to Criminology and Criminal Justice
The candidate must then select from two of the following three courses:
CRI MI N 1110, Theories of Crime
CRIMIN 1120, Criminal Law
CRI MI N 2130, Criminal Justice Policy
Candidates must then complete 6 hours of criminology and criminal justice course work at the 2000 level or above.

If used for the minor, candidates must earn a minimum grade of (C-) in the following courses: CCJ 2220 Statistical Analysis in Criminology and Criminal Justice, and CCJ 4390 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 ( $\mathrm{s} / \mathrm{u}$ ) 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

1. 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.
2. Develop a comprehensive understanding of interdisciplinary underpinnings (e.g., from sociology, psychology, political science, economics) of criminology and criminal justice issues and policies.
3. Develop critical thinking and communication skills through the application of criminological theory and social science research methods.
4. 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.
5. 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, Foundtions of Criminological Theory (3; core)
CRI MI N 6400, Proseminar: Criminology and Criminal Justice (3; core)
CRI MI N 6405, Methods (3; core)
CRI MI N 6410, Statistical Applications in Criminology and Criminal Justice (3; core)
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) are required. Students may enroll for dissertation credits (CRIMIN 7499) only when all other degree requirements have been completed.

## Required courses for the Ph.D. are:

CRI MI N 5415, Foundations of Criminological Theory
CRIMIN 6400, Proseminar
CRI MI N 6405, Methods
CRIMIN 6410, Statistical Applications in Criminology and Criminal Justice
CRI MI N 6420, Contemporary Criminological Theory
CRI MI N 6440, Nature of Crime
CRI MI N 6450, Criminal Justice Process and Policy

CRI MI N 6465, Qualitative Research Design
CRI MI N 6470, Quantitative Research Design
CRI MI N 6471, Evaluating Criminal J ustice Interventions
CRI MI N 6480, Multivariate Statistics in Criminology
Students are also required to complete at least 9 hours from the following courses:
CRIMIN 5533, Philosophy of Law
CRIMI N 5555, Ethical and Legal Issues in Criminal Justice
CRI MI N 6431, The Nature of Punishment
CRI MI N 6434, Human Rights
CRI MI N 6435, Gender Crime and Criminal Justice
CRIMIN 6441, J uvenile Delinquency
CRI MI N 6442, Communities and Crime
CRI MI N 6443, Violent Crime
CRI MI N 6445, Property Crime
CRI MI N 6446, Sex Crime
CRI MI N 6447, Public Order Crime
CRI MI N 6448, Victimization
CRI MI N 6452, The Police
CRI MI N 6454, Corrections
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.

## 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.

## Course Descriptions

Prerequisites may be waived by consent of the department or instructor.

## CRI MI N 1100 Introduction to Criminology and Criminal Justice (3)

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. Course fulfills the state requirement for non-criminal justice majors.

CRI MI N 1110 Theories of Crime (3)
Prerequisite: CRIMIN 1100. Introduction to major theoretical approaches to the study of crime and justice.
CRI MIN 1120 Criminal Law (3)
Prerequisite: CRIMIN 1100. Analysis of substantive criminal law, evidence and judicial procedure.

Prerequisite: CRIMIN 1100 or consent of instructor. Overview of patterns and correlates of violence in America. Emphasis on the variety of forms of violent crime, such as murder, assault, robbery, rape, and gang violence. Includes an examination of violence as a response to lawbreaking.

## CRI MI N 1200 Foundations of Law: An I ntroduction to Legal Studies (3)

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.

## CRI MI N 2130 Criminal Justice Policy (3)

Prerequisite: CRIMIN 1100. Examination of situational, social, and legislative approaches to the prevention of crime and delinquency. Emphasis on theories, implementation and consequences of these approaches.

CRI MI N 2180 Alcohol, Drugs, and Society (3)
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.

## CRI MI N 2210 Research Methods in Criminology and Criminal Justice (4)

Prerequisite: CRIMIN 1100. Examination of basic methods of research design, measurement and data collection in criminology and criminal justice.

## CRI MI N 2220 Statistical Analysis in Criminology and Criminal Justice (4)

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 CRIMIN 2220 prerequisite require a minimum grade of "C" to be earned by the student in this course.

CRI MI N 2226 Law Politics and Society (3)
Same as POL SCI 2260. Prerequisite: POL SCI 1100 or POL SCI 1200 or consent of instructor. This 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 the law to solve policy problems. Attention will be placed on current legal policy issues facing American society.

CRI MI N 2240 Policing (3)
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.

## CRI MI N 2250 The Courts (3)

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.

CRI MI N 2251 Youth Gangs (3)
Prerequisite: 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; crime, victimization, and drug involvement; and variations by race, gender, time period, and geography.

CRI MI N 2252 Philosophical Foundations of Criminal Justice (3)
Same as PHIL 2252. Addresses 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? When might people be morally obligated to obey?

## CRI MI N 2260 Corrections (3)

Prerequisite: CRIMIN 1100. Examination of correctional philosophies and practices. Emphasis on the history of correction, the formal and informal organization of correction facilities, inmate rights, and correctional alternatives.

## CRI MI N 3043 History of Crime and J ustice (3)

Same as HIST 3043. Prerequisite: Junior standing or consent of the 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.

CRI MI N 3209 Forensic Anthropology (4)
Same as ANTHRO 3209. Prerequisite: 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.

CRI MI N 3230 Crime Prevention (3)
Prerequisites: Junior standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 1130, 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.

CRI MI N 3270 J uvenile J ustice \& Delinquency (3)
Prerequisites: 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.

## CRI MI N 3280 Internship in Criminology and Criminal J ustice (3)

Prerequisite: J unior standing. Internship under faculty supervision in a criminal justice setting. May be repeated once.

CRIMIN 3290 Special Readings (1-6)
Prerequisite: Consent of instructor. Individualized study, under regular faculty supervision, designed to meet particular educational needs of selected students.

CRI MI N 3305 Comparative Criminology and Criminal J ustice (3)
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.

CRIMI N 3310 Computers in Criminal Justice (3)
Prerequisites: CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Use of computers, database systems, and software applications in research and professional practice.

CRIMIN 3320 The Death Penalty (3)
Prerequisite: CRIMIN 1100. An examination of the history, application, and attitudes toward the death penalty.

## CRI MI N 3330 White Collar Crime (3)

Prerequisites: Junior Standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 1130, CRIMIN 2210, 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.

## CRI MI N 3345 Rights of the Offender (3)

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.

## CRI MI N 4300 Communities and Crime (3)

Same as SOC 4300. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 1130, 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.

## CRI MI N 4320 Forms of Criminal Behavior (3)

Same as SOC 4320. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 1130, 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.

## CRI MI N 4325 Gender, Crime, and J ustice (3)

Same as SOC 4325. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 1130, 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.

## CRI MI N 4330, Violence Against Women (3)

Same as GS 4330. Prerequisites: Junior Standing, CRIMIN 1110, 1120, 1130, 2210, 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.

## CRI MI N 4335 Probation and Parole (3)

Prerequisites: CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100, or consent of instructor. Analysis of alternatives to incarceration and postincarceration supervision. Emphasis on diversion, restitution, and community reintegration.

## CRI MI N 4340 Race, Crime, and J ustice (3)

Same as SOC 4340. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 2130, CRIMIN 2210, CRIMIN 2220, CRIMIN 2260 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)
Prerequisites: 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.

## CRI MI N 4380 Special Topics in Criminology and Criminal Justice (3)

Prerequisites: 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.

CRI MI N 4390 Seminar in Criminology and Criminal J ustice (3)
Prerequisites: 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 research paper supervised by the instructor.

## CRI MI N 4487 Philosophy of Law (3)

Same as PHIL 4920. Prerequisite: CRIMIN 1100, and 3 hours of philosophy or consent of instructor. An examination of typical problems raised by law, including the basis of legal obligations and rights, relations between law and morality, the logic of legal reasoning, and the justification for punishment. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

## CRI MI N 5415 Foundations of Criminological Theory (3)

Same as SOC WK 5415. 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 6400 Proseminar (3)

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.

CRI MI N 6405 Methods (3)
Prerequisite: Graduate standing. Examination of basic methods for research design and data collection. Topics include participant observation and interviewing, survey research, aggregate data analysis, and experimental design.

## CRI MI N 6410 Statistical Applications in Criminology and Criminal Justice (3)

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.

## CRI MI N 6420 Contemporary Criminological Theory (3)

Prerequisite: Graduate standing and CCJ 5415, 6400, 6405 , and 6410 or consent of instructorExamination 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.

## CRI MI N 6436 Comparative Legal Systems (3)

Prerequisite: Graduate standing or consent of instructor. Examination of crime and criminal justice systems in world perspective.

## CRI MI N 6440 Nature of Crime (3)

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 typologies, and criminal careers.

CRIMIN 6441 J uvenile Delinquency (3)
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 United States

CRI MI N 6442 Communities and Crime (3)
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, fear of crime, neighborhood change, neighborhood responses to crime, and public policies.

CRI MI N 6443 Violent Crime (3)
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.

## CRI MI N 6445 Property Crime (3)

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.

## CRIMI N 6446 Sex Crime (3)

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.

## CRI MI N 6448 Victimization (3)

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.

CRI MI N 6450 Criminal J ustice Process and Policy (3)
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.

## CRI MI N 6452 The Police (3)

Prerequisite: Graduate standing or consent of instructor. Historical, social and political analysis of policing in America. Examination of federal, state, county, and municipal agencies.

## CRI MI N 6454 Corrections (3)

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.

CRI MI N 6465 Qualitative Research Design (3)
Prerequisite: Graduate standing. Examination of participant observation and informant and respondent interviewing. Topics include gaining access, sampling, data collection and analysis, and legal and ethical concerns.

CRI MI N 6470 Quantitative Research Design (3)
Prerequisite: Graduate standing or consent of instructor. Examination of experimental, longitudinal, and crosssectional designs. Sources of data, sampling procedures, operational definitions, and issues of reliability are also discussed.

## CRI MI N 6471 Evaluating Criminal J ustice I nterventions (3)

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.

## CRI MI N 6480 Multivariate Statistics in Criminology (3)

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, modeling, time series analysis, simultaneous equations, and analysis of limited dependent variables.

CRI MI N 6485 Directed Readings/ Research in Criminology and Criminal Justice (1-6)
Prerequisite: Consent of Instructor. Directed reading and research, under faculty supervision, designed to meet particular educational needs of selected students.

CRI MI N 6495 I nternship in Criminology and Criminal Justice (3)
Prerequisite: Graduate standing or consent of instructor. Supervised placements with criminal justice agencies. Designed primarily for students with limited field experience.

CRIMI N 6498 M.A. Thesis Research (1-6)
Prerequisites: Graduate standing and consent of instructor.
CRI MI N 6550 Seminar in Criminology and Criminal J ustice (3)

Prerequisite: Graduate standing and CCJ 5415, 6400, and 6405 or consent of 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.

CRI MI N 7499 Ph.D. Dissertation Research (1-6)
Prerequisite: Graduate standing or consent of instructor. To be arranged.

BULLETIN
University of Missouri - St. Louis

## Department of Anthropology, Sociology, and Languages

Anthropology | Sociology | Languages and Cultures |

## UMSL Home

## General I nformation

The Department of Anthropology, Sociology and Languages in the College of Arts and Sciences at the University of Missouri-St. Louis includes programs in each of the three disciplines. The faculty of this department are distinguished scholars with a common commitment to quality with respect to teaching and research related to the global biological, cultural, and historical diversity of humanity. We are committed to advancing the understanding of social and cultural forces that shape the beliefs, behaviors, and relationships of individuals as members of the larger society, and to promoting an interdisciplinary approach to learning. Visit the individual pages for Anthropology, Sociology and Languages programs.

## Degrees Offered:

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

# Department of Economics 

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## UMSL Home

Department of Economics Home Page

## Faculty

David C. Rose, Professor and Chairperson
Ph.D., University of Virginia
Sel Dibooglu, Professor
Ph.D., Iowa State University
Susan K. Feigenbaum, Professor
Ph.D., University of Wisconsin
Robert L. Sorensen, Founders Professor
Ph.D., Virginia Polytechnic Institute
Anne E. Winkler, Professor, Economics and Public Policy Administration
Ph.D., University of Illinois at Urbana-Champaign
Clinton A. Greene, Associate Professor
Ph.D., University of California-Davis
Lea-Rachel Kosnik, Associate Professor
Ph.D., University of California, Los Angeles
Donald J. Kridel, Associate Professor, Director of Graduate Studies
Ph.D., University of Arizona
Shirley L. Porterfield, Associate Professor, Economics and Social Work
Ph.D., University of Wisconsin-Madison
William H. Rogers, Associate Professor
Ph.D., Colorado State University
Thomas R. I reland, Professor Emeritus
Ph.D., University of Virginia
Sharon G. Levin, Professor Emeritus
Ph.D., University of Michigan
William E. Mitchell, Professor Emeritus
Ph.D., Duke University
Donald Phares, Professor Emeritus
Ph.D., Syracuse University
Herbert D. Werner, Associate Professor Emeritus
Ph.D., University of California-Berkeley
Grant C. Black, Teaching Professor; Director for the Center for Entrepreneurship and Economic Education Ph.D., Georgia State University
Donald C. Sweeney II, Teaching Professor, Economics and College of Business; Associate Director, Center for Transportation Studies Ph.D., Washington University
Michael T. Allison, Associate Teaching Professor, Director of Undergraduate Studies
A.B.D., University of Virginia

Brian Speicher, Senior Lecturer
A.B.D., Washington University

Kathleen Phares, Senior Lecturer Emeritus
M.A., University of Missouri-St. Louis

## General I nformation

## Degrees and Areas of Concentration

The economics department offers several degree programs. The B.A. in economics provides a flexible liberal arts orientation for students. The B.S. in economics places more emphasis upon developing the analytical and quantitative skills used in analysis. Both degrees can be tailored to meet the career interests of the student.

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.

The economics department also offers courses at the undergraduate level in geography.
A graduate program offers work leading to the M.A. degree in economics in preparation for careers in teaching, research, government, and industry. The program includes course work in microeconomic theory, macroeconomic theory, and econometrics, as well as elective courses in international trade, international finance, monetary theory, industrial organization, public finance, labor, urban, and natural resource economics. 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.

## 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

A minor in economics is also available. See the following section for requirements.

## Undergraduate Studies

Students completing the B.A. and B.S. in Economics are expected to have achieved the following learning outcomes:

1. Use economic reasoning to interpret and evaluate social, political and economic arguments, and policies.
2. Use mathematical methods to interpret and analyze economic models to assess their logical validity and to model economic phenomena.
3. Use statistical methods to interpret and analyze economic data and to assess the empirical validity of economic propositions.
4. 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.
5. Identify the causes and consequences of poverty and prosperity across and within societies.
6. 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.
7. Write a research paper that employs sound economic reasoning and, where appropriate, uses data and statistical methods to analyze an economic policy.

## General Education Requirements

All undergraduate economics majors must meet the university and college general education requirements. 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.

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.

All prerequisites for economics courses must be completed with a C- or better.

## 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.

## Degree Requirements

## 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 required courses for the major must be completed with a grade of Cor better. The following courses are required:
ECON 1001, Principles of Microeconomics
ECON 1002, Principles of Macroeconomics
ECON 2800, History of American Economic Development; or ECON 3800, History of Economic Thought
ECON 3001, Intermediate Economic Theory: Microeconomics
ECON 3002, Intermediate Economic Theory: Macroeconomics
ECON 3100, Economic Statistics
ECON 3200, Money, Banking, and Monetary Theory

## 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 required courses for the major must be completed with a grade of C - or better. The following courses are required:
ECON 1001, Principles of Microeconomics
ECON 1002, Principles of Macroeconomics
ECON 3001, Intermediate Economic Theory: Microeconomics
ECON 3002, Intermediate Economic Theory: Macroeconomics
ECON 3100, Economic Statistics
ECON 3200, Money, Banking, and Monetary Theory
ECON 4100, Introduction to Econometrics
MATH 1800, Analytic Geometry and Calculus I, or MATH 1100, Basic Calculus

## Also required are two of the following:

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, Econometric and Time Series Forecasting
ECON 4150, Mathematical Economics
ECON 4160, Geospatial Economic Analysis
Any mathematics course numbered 1900 or above with consent of advisor (note: mathematics courses used for this requirement do not count towards the 36 hours in economics requirement)

## 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. 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 doctorallevel 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, Analytical Geometry and Calculus II
MATH 2000, Analytical Geometry and Calculus III
MATH 2020, Differential Equations
MATH 2450, Elementary Linear Algebra
MATH 4100, Advanced Calculus
MATH 4200, Mathematical Statistics I

## General Business Preparation:

It is recommended that students interested in pursuing careers in business also take:
ACCTNG 2400, Fundamentals of Financial Accounting
ACCTNG 2410, Managerial Accounting
BUS AD 2900, Legal Environment of Business
FI NANCE 3500, Financial Management
MKTG 3700, Basic Marketing
Requirements for the Minor.
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
ECON 1002, Principles of Macroeconomics
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 LOM 3300, MATH 1320, 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 ECON 1002 only.

## Graduate Studies

Students completing the M.A. in Economics are expected to have achieved the following learning outcomes:

1. Interpret and analyze economic models and assess their validity.
2. Use theoretical and empirical tools to design effective business and government policies.
3. 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.
4. Develop at least one topic area of expertise through familiarity with the relevant scholarly and professional literatures, policy issues, institutions, and current data trends.
5. 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.
6. Write a professional quality research paper.
7. Develop sufficient proficiency in the use of theoretical and empirical tools and in understanding of economic institutions to excel in a Ph.D. program.

## 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, Microeconomics Analysis
ECON 5002, Macroeconomics Analysis
ECON 5100, Econometric Theory and Methods
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 Economics 4100 and ECON 4150 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, 3002, 3100, 3200, MATH 1800, and preferably ECON 4100) 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) and/or introductory econometrics (ECON 4100) 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.

## 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-J anuary, and mid-J une. 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.

## 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.

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.

ECON 5001, Microeconomic Analysis
ECON 5002, Macroeconomic Analysis
ECON 5100, Econometric Theory and Methods

## 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.

## Dual M.B.A./ M.A. in Economics

For as few as 15 hours of additional course work in economics, a Master of Arts in Economics may be obtained along with your Master of Business Administration (M.B.A.) degree. Students apply for the M.A. during the last semester of M.B.A. studies; the usual on-line application is utilized. Full-time students may be able to complete the M.A. degree in as little as a year, while part-time students can be accommodated over a longer time period. The total number of additional courses will depend on which electives the student has taken in their M.B.A. program; students are advised to contact the Director of Graduate Studies in Economics regarding the choice of possible M.B.A. electives.

The following course of study is recommended for dual degree-seekers. It is assumed that students have already completed at least one course in calculus.

## I) Core requirements - 9 hours <br> ECON 5001, Microeconomic Analysis <br> ECON 5002, Macroeconomic Analysis <br> ECON 5100, Econometric Theory and Methods

## II) Electives - 21 hours

Twelve hours of graduate-level business electives (excluding BUS AD 5000, BUS AD 5001, and BUS AD 5002, INFSYS 6800 and LOG OM 5300) to be incorporated from your M.B.A. degree program. Six additional graduate hours in economics, three hours of which may be at the 4000 level.

Applicants need not have an undergraduate degree in economics. However, students are expected to have taken, either at the baccalaureate or M.B.A. level: Intermediate Microeconomics (ECON 3001 or BUS AD 5001), Intermediate Macroeconomics (ECON 3002 or BUS AD 5002), Mathematical Economics (ECON 4150), Money and Banking (ECON 3200), Statistical Analysis for Management Decisions (LOG OM 5300) and Introductory Econometrics (ECON 4100). Students that do not have these courses will take these courses first; credits earned in these courses do not count towards the hours required for the M.A.

Students must take at least 30 hours to complete the M.A. in Economics degree-core requirements (I) and electives (II) - and these courses must be completed within a period of six years.

## 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.

## Course Descriptions

Courses in this section are grouped as follows: Economics, Geography, and Home Economics. Prerequisites may be waived by consent of the department.

## Economics

ECON 1000 Introduction to the American Economy (3) [V, SS]
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) [V, SS]

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) [SS]
Prerequisite: 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)
Prerequisite: ECON 1000 or ECON 1001 or equivalent (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-within Internet access.

## ECON 1004 Macroeconomics in the News: A Virtual Classroom (1)

Prerequisite: ECON 1002 or equivalent (may be taken currently). 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)

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. Economics 1005 does not count toward a major or minor in Economics.

## ECON 1500 Entertainment Economics: The Movie I ndustry (3) [SS]

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) [MI, SS]
Same as GS 2410. Prerequisite: 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) [V, SS]

Prerequisite: ECON 1000 or equivalent 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 2650 Law and Economics (3)

Prerequisite: ECON 1001. Analysis of the economic role of property rights and contracts in the private forprofit 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 2800 History of American Economic Development (3) [MI, SS]
Same as HIST 2800. Prerequisite: ECON 1000 or ECON 1001 or consent of instructor. Uses economic concepts to explain historical developments in American economy, beginning with hunter-gatherers who crossed the Bering land bridge around 12,000 B.C. Main topics include Native American economies, European exploration and conquest, colonial economies, indentured servitude, American Revolution, U.S. Constitution, westward expansion, transportation, Industrial Revolution, state banking and free banking, slavery, Civil War, postbellum agriculture, rise of big business and antitrust, banking panics, Federal Reserve Act, First and Second World Wars, New Deal, and growth of government in postwar economy.

ECON 3001 Intermediate Economic Theory: Microeconomics (3)
Prerequisites: ECON 1001 and ECON 1002. Analysis of prices in terms of equilibrium of the business firm and consumer demand in markets of varying degrees of competition.

ECON 3002 Intermediate Economic Theory: Macroeconomics (3)
Prerequisites: ECON 1001, 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)
Prerequisite: 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)
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 Economics Issues for the School Curriculum (1-3)
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)

Prerequisites: 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)

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)

Prerequisite: ECON 1001. Introduction to the theories of international trade and finance including determinants of trade, the effects of trade on overall economic performance, trade restrictions, balance of payments, exchange rates, international economic integration and international financial crises. Discussion of current institutions and economic developments in the global economy.

## ECON 3320 Economic Development (3)

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)
Prerequisite: 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, internal 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)

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 Public Finance (3)

Prerequisites: ECON 1002 and ECON 3001. Analysis of the role of government expenditures and taxation. Topics include: (1) analysis of public goods and externalities, models of collective choice, elements of benefitcost 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 Industrial Organization (3)

Prerequisite: ECON 1001. A theoretical and empirical analysis of the actions of firms under alternative forms of market organization. The role of economics 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 3800 History of Economic Thought (3)
Prerequisites: ECON 1001 and ECON 1002. The evolution of economic thought from the ancients through postKeynesian theory.

## ECON 3900 Selected Topics in Economics (3)

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 as long as the topic discussed in each semester is different.

ECON 4030 Managerial Economics (3)
Prerequisites: ECON 3001 or equivalent; 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)

Prerequisites: ECON 3200; ECON 3002; ECON 3100. 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)

Prerequisites: ECON 1001; ECON 1002; ECON 3100 or MATH 1320 or LOM 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 Methods and Modeling in Economics, Business and the Social Sciences (3) 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 or MATH 1800 or MATH 1100 may not take this course for credit.

## ECON 4110 Applied Econometrics (4)

Prerequisite: ECON 4100 or equivalent. Concepts, techniques, and 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)

Prerequisites: ECON 4100 or equivalent and a solid foundation in statistics. Introduction to application of econometric methods to time-series data. Emphasis on model specification as it applies 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)

Prerequisite: 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)
Prerequisite: 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 that receive graphical treatment in lower level courses.

ECON 4160 Geospatial Analysis in the Social Sciences (3)
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)

Prerequisite: 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)

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 operating within these markets, decision-making within individual intermediaries, their regulatory environment, and how their portfolio decisions affect flows in the financial system.

## ECON 4500 Public Finance: State and Local (3)

Prerequisites: ECON 1001 and ECON 1002 and junior standing. A study of expenditure, taxation, and financial administration of state and local governments, with emphasis on problems of current interest. Special attention given to research methods, as well as financial relations between various levels of government.

## ECON 4510 Public Choice (3)

Prerequisite: 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 4550 Natural Resource Economics (3)

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 and Regional Economics (3)

Prerequisites: ECON 1001 and ECON 1002. A survey of factors affecting the location of economic activity, industrial diversity, determinants of urban growth, and the role of urban public economy. Special emphasis is given to critiques of economic impact studies and urban public policies.

ECON 4720 The Economics of Real Estate and Land Use Policy (3)
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 discusses 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)
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)

Prerequisites: 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)
Prerequisites: Junior standing, ECON 3001, and consent of instructor. Independent study involving work with appropriate private firm or public agency. Maximum of 6 hours may be earned, only 3 of which may be applied
to economics major.
ECON 5001 Microeconomic Analysis (3)
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)
Prerequisites: ECON 3200; ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; 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)

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 5052 Microeconomics for the School Curriculum (1-3)

Prerequisite: 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 allocations. Special reference to topics included in the elementary and secondary school social science curricula.

## ECON 5055 Economic Issues for the School Curriculum (1-3)

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.

ECON 5100 Econometric Theory and Methods (3)
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)

Prerequisite: 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)

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 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 5130 Advanced Topics in Business and Economic Forecasting (3)

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)

Prerequisites: ECON 3200; ECON 3001 or BUS AD 5001; ECON 3002 or BUS AD 5002; 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)

Prerequisites: ECON 3200; ECON 3001 or BUS AD 5001; ECON 3002. 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)
Prerequisite: 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 Finance (3)
Prerequisite: ECON 3200, ECON 3001 or BUS AD 5002. Application of economic theory to international financial issues and discussion of current financial institutions and developments in the global economy. Topics include the international payments mechanism, the balance of payments, foreign exchange markets, international linkages, world inflation, capital flows, and macroeconomic policy in open economies.

ECON 5400 Labor Economics: Theory and Public Policy (3)
Prerequisite: 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-thejob 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)

Same as P P ADM 6210. Prerequisite: 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 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)

Prerequisite: 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 I ndustry (3)

Prerequisites: ECON 3001 or BUS AD 5001; 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 price-setting 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)

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)

Prerequisite: 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 Regional and Urban Economics (3)

Prerequisite: ECON 3001. Investigate the spatial aspects of urban and regional economics: location theory, market areas, and agglomerations. The focus in 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 and regional development strategies, the growth of cities, firm location decision, spatial externalities, sprawl, and firm location.

ECON 5720 Real Estate Economics (3)
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 5760 Health Economics (3)
Prerequisite: 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 risksharing device is explored, along with its implications for pricing and health care utilization.

ECON 5900 Advanced Topics in Economic Analysis (3)
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)

Prerequisite: Consent of instructor. Independent study through readings, reports, research projects, and conferences.

## Geography

GEOG 1001 Introduction to Geography (3) [ MI, SS]
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)
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) [CD]

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 requirement.

## GEOG 4900 Advanced Readings in Geography (3)

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.

## Home Economics

HOME EC 1110 Nutrition in Health (3)
A study of dietary nutrients essential for health, proper selection of foods to provide them, and current issues affecting them.

# Department of English 

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## UMSL Home

Department of English Home Page

## Faculty

Richard M. Cook, Professor and Chairperson
Ph.D., University of Michigan
J oseph Carroll, Curators' Professor
Ph.D., University of California-Berkeley
Eamonn Wall, J efferson Smurfit Professor Of Irish Studies and Professor
Ph.D., City University of New York
Sylvia J. Cook, Professor
Ph.D., University of Michigan
Sally Barr Ebest, Professor
Ph.D., Indiana University
Francis Grady, Professor
Ph.D., University of California-Berkeley
Mary Troy, Professor
M.F.A., University of Arkansas

Deborah Aldrich-Watson, Associate Professor
Ph.D., Columbia University
John Dalton, Associate Professor
M.F.A., University of Iowa

Suellynn Duffey, Associate Professor
Ph.D., The Ohio State University
Kathy Gentile, Associate Professor
Ph.D., University of Oregon
Steven Schreiner, Associate Professor
Ph.D., Wayne State University
Kurt Schreyer, Assistant Professor
Ph.D., University of Pennsylvania
Nancy Robb Singer, Associate Professor
Ph.D., University of Missouri-St. Louis
Benjamin Torbert, Assistant Professor
Ph.D., Duke University
Nancy Gleason, Teaching Professor
M.A., University of Missouri-St. Louis

William Klein, Teaching Professor
Ph.D., Michigan Technological University
William Mayhan, Teaching Professor
Ph.D., Washington University
Susan Grant, Associate Teaching Professor
M.A., Southern Illinois University-Edwardsville

Jennifer MacKenzie, Associate Teaching Professor
M.A., Purdue University

Thomas Scott McKelvie, Associate Teaching Professor
M.A., University of Missouri-St. Louis

Barbara Van Voorden, Associate Teaching Professor
M.A., Washington University

Thomas Glen I rwin, Assistant Teaching Professor
MA, University of Missouri - St. Louis
Deborah Maltby, Assistant Teaching Professor
Ph.D., University of Missouri-Kansas City
Kathleen Butterly Nigro, Assistant Teaching Professor
Ph.D, Saint Louis University

Lynn Staley, Assistant Teaching Professor
Ph.D., St. Louis University
Drucilla Mims Wall, Assistant Teaching Professor
Ph.D., University of Nebraska-Lincoln
Allison, J eanne, Lecturer
M.A., University of Missouri-St. Louis

Paula Coalier, Lecturer
MA, University of Missouri-St. Louis
David Linzee, Academic Coordinator
MA, ESL Southern Illinois University
Peter Wolfe, Curators' Professor Emeritus
Ph.D., University of Wisconsin
David Carkeet, Professor Emeritus
Ph.D., Indiana University
Charles Dougherty, Professor Emeritus
Ph.D., University of Toronto
Howard Schwartz, Professor Emeritus
M.A., Washington University

James E. Tierney, Professor Emeritus
Ph.D., New York University
J ane Zeni, Professor Emerita
Ed.D., University of Missouri-St. Louis
Bruce L. Liles, Associate Professor Emeritus
Ph.D., Stanford University
Nanora Sweet, Associate Professor Emerita
Ph.D., University of Michigan
J ane Williamson, Associate Professor Emerita
Ph.D., Bryn Mawr College
David Rota, Teaching Professor Emeritus
Ph.D., Southern Illinois University-Carbondale
Ellie Chapman, Senior Lecturer Emerita
M.A., Murray State University

Judy Gurley, Senior Lecturer Emerita
M.A., University of Arkansas

J udith Linville, Senior Lecturer Emerita
M.A., University of Arkansas

Terence Martin, Senior Lecturer Emeritus
Ph.D., Southern Illinois University-Carbondale

## 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.

## Undergraduate Studies

## General Education Requirements

English courses may be used to meet the university's humanities requirement, except the following:
ENGL 1100, First Year Writing
ENGL 1110, First Year Writing for International Students
ENGL 2120, Topics in Writing
ENGL 2810, Traditional Grammar
ENGL 3090, Writing About Literature
ENGL 3100, Junior-Level Writing
ENGL 3110, Junior-Level Writing for International Students
ENGL 3120, J unior-Level Business Writing
ENGL 3130, Junior-Level Writing: Engineering and Technology
ENGL 3140, News Writing
ENGL 3150, Feature Writing
ENGL 3160, Writing in the Sciences
ENGL 3180, Reporting
ENGL 4860, Editing
ENGL 4870, Advanced Business and Technical Writing
ENGL 4880, Writing for Teachers
ENGL 4885, The Curriculum and Methods of Teaching English
ENGL 4890, Independent Writing Project
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, First Year Writing
ENGL 1110, First Year Writing for International Students
ENGL 3090, Writing About Literature
ENGL 3100, Junior-Level Writing
ENGL 3110, Junior-Level Writing for International Students
ENGL 3120, J unior-Level Business Writing
ENGL 3130,J unior-Level Writing: Engineering and Technology
ENGL 3140, News Writing
ENGL 3150, Feature Writing
ENGL 3160, Writing in the Sciences
ENGL 3180, Reporting
ENGL 4860, Editing
ENGL 4870, Advanced Business Writing
ENGL 4880, Writing for Teachers
ENGL 4885, The Curriculum and Methods of Teaching English
ENGL 4890, Independent Writing Project

## 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, Freshman Composition; ENGL 1110, Freshman Composition for International Students; and ENGL 3090, Writing About Literature.

1) Students majoring in English must take:

ENGL 2310, English Literature before 1790
ENGL 2320, English Literature after 1790
ENGL 2710, American Literature Before 1865
ENGL 2720, American Literature After 1865
Plus one of the following:
ENGL 2280, Contemporary World Literature
ENGL 2330, I ntroduction to Poetry
ENGL 2340, Introduction to Drama

ENGL 2350, Introduction to Fiction
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 or consent of instructor is a prerequisite or corequisite for all 4000 -level courses in British literature before 1790.
- ENGL 2320 or consent of instructor is a prerequisite of corequisite for all 4000 -level courses in British Literature after 1790.
- ENGL 2710 or consent of instructor is a prerequisite or corequisite for all 4000-level courses in American Literature to 1865
- ENGL 2720 or consent of instructor is a prerequisite or corequisite for all 4000-level courses in American literature after 1865.
- Both ENGL 2710 and ENGL 2720 or consent of instructor are prerequisites or corequisites for ENGL 4650.

All survey courses should be taken before the major has completed 90 hours toward a degree.
2) ENGL 2810, Traditional Grammar (Students with sufficient background may gain exemption from the English 2810 requirement by passing the English-Education Test of Basic Grammar. This test may be taken only twice.)
3) ENGL 3090, Practical Criticism: Writing About Literature. (For English majors, this course is a prerequisite or corequisite for 4000-level courses in English.)

## 4) 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 (choose one)

ENGL 4260 Chaucer
ENGL 4270 Medieval English Literature
ENGL 4320 Sixteenth-Century Poetry and Prose
ENGL 4340 Early Seventeenth-Century Poetry and Prose
ENGL 4350 Milton
ENGL 4360 Tudor and Stuart Drama
ENGL 4370 Shakespeare: Tragedies and Romances
ENGL 4380 Shakespeare: Comedies and Histories
ENGL 4420 Age of Dryden and Pope
ENGL 4450 The Eighteenth-Century English Novel
ENGL 4931 English Women Writers, 1300-1750
Distribution Requirement: British Literature after 1790 (choose one)
ENGL 4510 Early romantic Poetry and Prose
ENGL 4520 Later Romantic Poetry and Prose
ENGL 4540 The Nineteenth-Century English Novel
ENGL 4550 Novels into Film: The Nineteenth Century
ENGL 4560 Prose and Poetry of the Victorian Period
ENGL 4580 Literature of the Late Nineteenth and Early Twentieth Centuries
ENGL 4750 Modern British Fiction
ENGL 4934 Austen and the Brontes
ENGL 4935 Women Heroes and Romantic Tales
Distribution Requirement: American Literature (choose one)
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 4740 Poetry since World War II

## Emphasis Areas (EA) (* denotes course listed in two emphasis areas)

## British Literature Emphasis Area:

ENGL 4260 Chaucer
ENGL 4270 Medieval English Literature
ENGL 4320 Sixteenth- Century Poetry and Prose
ENGL 4340 Early Seventeenth-Century Poetry and Prose
ENGL 4350 Milton
ENGL 4360 Tudor and Stuart Drama
ENGL 4370 Shakespeare: Tragedies and Romances
ENGL 4380 Shakespeare: Histories and Comedies
ENGL 4420 Age of Dryden and Pope
ENGL 4450 The Eighteenth-Century English Novel
ENGL 4510 Early Romantic Poetry and Prose
ENGL 4520 Later Romantic Poetry and Prose
ENGL 4540 The Nineteenth-Century English Novel
ENGL 4550 Novels into Film: The Nineteenth Century
ENGL 4560 Prose and Poetry of the Victorian Period
ENGL 4580 Literature of the Late Nineteenth and Early Twentieth Centuries
ENGL 4750 Modern British Fiction

* ENGL 4770 Modern Poetry (also American EA)
* ENGL 4930 Studies in Gender and Literature (also Women's/Gender EA)

ENGL 4931 English Women Writers, 1300-1750

* ENGL 4932 Female Gothic (also Women’s/Gender EA)

ENGL 4935 Women Heroes and Romantic Tales

* ENGL 4936 Tales of the Islamic East (also Ethnic/World EA)

ENGL 4950 Special Topics in Literature (with at least 50\% British emphasis)
American Literature Emphasis Area
*ENGL 4060 Adolescent Literature (also Ethnic World EA)
ENGL 4610 Selected Major American Writers (I)
ENGL 4620 Selected Major American Writers (II)

* ENGL 4630 African American Literature prior to 1900 (also Ethnic/World EA)

ENGL 4640 American Fiction to World War I
ENGL 4650 Modern American Fiction
ENGL 4740 Poetry since World War II
*ENGL 4770 Modern Poetry (also British EA)

* ENGL 4910 Studies in African/African American Literature, Criticism, \& Diaspora (also Ethnic/World EA)
* ENGL 4937 Irish \& Irish-American Women Writers (also Women/Gender EA)
*ENGL 4938 American Women Poets of 20th/21st Centuries (also Women/Gender EA)
ENGL 4950 Special Topics in Literature (with at least 50\% American emphasis)
Ethnic and World Literature Emphasis Area
* ENGL 4060 Adolescent Literature (also American EA)
*ENGL 4630 African American Literature prior to 1900 (also American EA)
ENGL 4760 Modern Drama
* ENGL 4910 Studies in African/African American Literature, Criticism, \& Diaspora (also American EA)

ENGL 4920 Major Works of European Fiction
*ENGL 4933 Female Novel of Development (also Women's/Gender EA)

* ENGL 4936 Tales of the I slamic East (also British EA)

ENGL 4950 Special Topics in Literature (with at least 50\% Ethnic/World emphasis)
Women's and Gender Studies Emphasis Area
ENGL 3800 Topics in Women and Literature

* ENGL 4930 Studies in Gender and Literature (also British EA)
* ENGL 4932 Female Gothic (also British EA)
*ENGL 4933 Female Novel of Development (also Ethnic/World EA)
ENGL 4934 Austen and Brontes
* ENGL 4937 Irish \& Irish-American Women Writers (also American EA)
*ENGL 4938 American Women Poets of 20th/21st Centuries (also American EA)
Language and Writing Emphasis Area
ENGL 3140 News Writing
ENGL 3150 Feature Writing
ENGL 3160 Writing in the Sciences
ENGL 3180 Reporting
ENGL 3280 Public Relations Writing
ENGL 4160 Special Topics in Writing (with at least 50\% writing studies emphasis)
*ENGL 4800 Linguistics (also Theory/Criticism EA)
ENGL 4810 English Grammar

ENGL 4820 History of the English Language
ENGL 4850 Topics in Teaching of Writing
ENGL 4860 Editing
ENGL 4870 Advanced business \& Technical Writing
ENGL 4880 Writing for Teachers
Creative Writing Emphasis Area
ENGL 3030 Poetry Writing Workshop
ENGL 3040 Fiction Writing Workshop: Narrative Techniques
ENGL 4130 Advanced Poetry Writing Workshop
ENGL 4140 Advanced Fiction Writing Workshop
ENGL 4160 Special Topics in Writing (with at least 50\% creative writing emphasis)
ENGL 4895 Editing Litmag
Theory and Criticism Emphasis Area
ENGL 4030 Contemporary Critical Theory
ENGL 4050 Forms and Modes of Poetry
ENGL 4080 Narrative, Cognition, and Emotion
ENGL 4160 Special Topics in Writing (with at least 50\% theory/criticism emphasis)

* ENGL 4800 Linguistics (also Language/Writing EA)

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:

1) Two courses in American literature. This requirement may be met by courses counted for the major.
a. American literature must include a unit or course in the literature of ethnic groups.
b. American literature must include a unit or course in literature for adolescents.
2) Twelve hours in composition and rhetoric:

ENGL 1100, First Year Writing, may be counted.
ENGL 3090, Practical Criticism: Writing About Literature, is required.
ENGL 4880/ SEC ED 4880, Writing For Teachers, is required.
Recommended courses include creative writing, journalism, and business writing.
3) English language requirements
a. 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.
b. ENGL 4810, English Grammar
c. 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. 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.

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MEDI A ST 2212, Broadcast Writing and Reporting
ENGL 2810, Traditional Grammar
ENGL 2030, Poetry Writing
ENGL 2040, Short Story Writing
ENGL 2080 or MEDI A ST 2080, Advertising Copywriting
ENGL 2120, Topics in Writing
ENGL 3030, Poetry Writing Workshop
ENGL 3040, Intermediate Fiction Writing
ENGL 3090, Practical Criticism: Writing About Literature
ENGL 3100, J unior-Level Writing
ENGL 3110, Junior-Level Writing for International Students
ENGL 3120, J unior-Level Business Writing
ENGL 3130, J unior-Level Writing: Engineering and Technology
ENGL 3140 or MEDI A ST 3214, News Writing
ENGL 3150, Feature Writing
ENGL 3160, Writing in the Sciences
ENGL 3180, Reporting
ENGL 3280 or MEDI A ST 2228, Writing for Public Relations
ENGL 4130, Advanced Poetry Writing
ENGL 4140, Advanced Fiction Writing
ENGL 4160, Special Topics in Writing
ENGL 4810, English Grammar
ENGL 4850, Topics in Teaching Writing
ENGL 4860, Editing
ENGL 4870, Advanced Business and Technical Writing
ENGL 4880, Writing for Teachers
ENGL 4890, Writing Internship (This course is required. It is to be taken as the last course a student will take
in the program, and it is to be used to generate an extensive final project or internship.)
ENGL 4892, Independent Writing Project
ENGL 4895, Editing Litmag
HONORS 3100, Writing the City
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## 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. The creative writing emphasis focuses the students' efforts toward producing original fiction or poetry and can include other literary endeavors such as writing creative nonfiction, editing, feature writing, and copywriting. The specific requirements for the Creative Writing emphasis are listed below.

Courses for the certificate should be chosen with the guidance of the Writing Certificate Coordinator. If the student elects to complete English 4890 as one of the courses for the certificate, he or should schedule a meeting with the coordinator to make arrangements for the internship.

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 Certificate in Writing 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 Certificate in Writing will receive the certificate in the mail and will have the certificate entered on their official transcripts.

To receive this certificate, the student must take 18 hours chosen from the courses listed below. Students must take at least two of the following: 3030, 3040, 4130, 4140, 4895, 4890 and at least one must be a 4000-level course.

2000-Level Courses (Students may take no more than two 2000-level courses)
ENGL 2030, Beginning poetry writing workshop (CW)

ENGL 2040, Beginning fiction writing workshop (CW)
ENGL 2330, Introduction to poetry (Lit)
ENGL 2340, Introduction to fiction (Lit)
ENGL 2350, Introduction to drama (Lit)
Creative Writing and Literature Courses
ENGL 3030, Poetry Writing Workshop
ENGL 3040, Fiction workshop: narrative structure
ENGL 3090, Practical criticism: writing about literature
ENGL 3100, Junior-Level writing
ENGL 4130, Advanced poetry writing
ENGL 4140, Advanced fiction writing
ENGL 4160, Special topics in writing
ENGL 4890, Writing Internship
ENGL 4892, Independent Writing Project
ENGL 4895, Editing Litmag
Professional Writing Courses (Students are encouraged to take at least one professional writing course, but no more than two.)
ENGL 2080, Advertising Copywriting (or MEDI A ST 2080)
ENGL 3150, Feature Writing (or MEDI A ST 3150)
ENGL 4860, Editing
This capstone course may be $4895,4890,4140$, or 4130 . If 4890 is used, it will be an internship in literary publishing, feature writing, or advertising copywriting. To use 4130 or 4140 , the student must obtain the teacher's permission and do extra work in the course. The editing Litmag course, 4895, may also be used as the final course for this certificate.

## 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 three required courses:

ENGL 3130, Junior-Level Writing: Engineering and Technology
ENGL 4860, Editing
ENGL 4870, Advanced Business and Technical Writing or
ENGL 4890, Writing Internship
In addition, students take three electives for a total of 18 hours chosen from the following:

## Business Administration

I NFSYS 1800, Computers and Information Systems
Media
MEDI A ST 1065, Introduction to Information Technology
Computer Science
CMP SCI 1250, Introduction to Computer Science (Prerequisite: MATH 1030, College Algebra)

## English

ENGL 3120, Junior-Level Business Writing
ENGL 3140, News Writing
ENGL 3150, Feature Writing
ENGL 3160, Writing in the Sciences
ENGL 3280, Public Relations Writing
ENGL 4870, Advanced Business and Technical Writing (if 4890) is taken as requirement)
ENGL 4890, Independent Writing Project (if 4870 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: 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 constitutes three of these required literature credits)

18 hours in writing studies courses (including ENGL 5840).
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, sociocultural 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), 3 hours of either ENGL 5170 or ENGL 5180 depending on specialization (fiction writers take 5170 and poets take 5180), 3 hours thesis (ENGL 6010). 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 for fiction writers and ENGL 5170 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, 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, "Writing for Teachers" or an equivalent course in teaching writing
- Coursework or competency in basic computer application.


## Required Core Courses ( 12 semester hours)

- ENGL 4850/ TCH ED 5850, Topics in the Teaching of Writing (designated topics, 3 sem. hrs.)
- ENGL 6880/ SEC ED 6880, Gateway Writing Project ( 6 sem. hrs.)
- TCH ED 6890, Seminar in Professional Writing for Teachers (exit course, 3 sem. hrs)


## Electives ( 6 sem. hrs.)

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.

## Suggested electives applicable to an MA in English with writing emphasis:

- ENGL 5800, Modern Linguistics
- ENGL 5840, Theories of Writing
- ENGL 5860, Writing/Reading Theory
- ENGL 5870, Composition Research
- ENGL 5890, Teaching College Writing


## Suggested electives applicable to an M.Ed. in Elementary or Secondary Education

- ELE ED 6387, Literacy Acquisition and Learning for Urban Students
- ELE ED 6482, Problems \& Research in Elementary Reading
- ED REM6714, Action Research in Education

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.

## 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

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majors have successfully entered law school.

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## Faculty

Andrew J. Hurley, Professor, Chairperson
Ph.D., Northwestern University
John R. Gillingham, Curators' Professor
Ph.D., University of California, Berkeley
Jay Rounds, E. Desmond Lee Professor of Museum Studies and Community History
Ph.D., University of California, Los Angeles
Carlos A. Schwantes, Saint Louis Mercantile Library Professor of Transportation Studies
Ph.D., University of Michigan
Mark A. Burkholder, Professor
Ph.D., Duke University
Louis Gerteis, Professor
Ph.D., University of Wisconsin
Steven W. Rowan, Professor
Ph.D., Harvard University
Robert M. Bliss, Associate Professor, Dean of Pierre Laclede Honors College
Ph.D., University of Wisconsin
Priscilla Dowden-White, Associate Professor
Ph.D., University of Indiana-Bloomington
J. Frederick Fausz, Associate Professor

Ph.D., William and Mary
Kevin J. Fernlund, Professor
Ph.D., University of New Mexico
Winston Hsieh, Associate Professor Emeritus
Ph.D., Harvard University
Adell Patton J r., Associate Professor
Ph.D., University of Wisconsin
Gerda W. Ray, Associate Professor
Ph.D., University of California, Berkeley
Laura Westhoff, Associate Professor
Ph.D., Washington University
Deborah Cohen, Associate Professor
Ph.D., University of Chicago
Minsoo Kang, Associate Professor
Ph.D., University of California, Los Angeles
Peter Acsay, Associate Teaching Professor
Ph.D., Saint Louis University
Robert Archibald, Adjunct Professor President, Missouri Historical Society
Ph.D., University of New Mexico
John Hoover, Adjunct Professor Director of St. Louis Mercantile Library
M.A., University of Missouri-Columbia

Robert D. Ubriaco, Adjunct Assistant Professor
Ph.D., University of Illinois
Richard H. Mitchell, Curators' Professor Emeritus
Ph.D., University of Wisconsin
Jerry M. Cooper, Professor Emeritus
Ph.D., University of Wisconsin
Paul Corby Finney, Professor Emeritus
Ph.D., Harvard University
Steven C. Hause, Professor Emeritus
Ph.D., Washington University

Charles P. Korr, Professor Emeritus
Ph.D., University of California, Los Angeles
William S. Maltby, Professor Emeritus
Ph.D., Duke University
Blanche M. Touhill, Professor, Chancellor Emerita
Ph.D., Saint Louis University
John A. Works J r., Associate Professor Emeritus
Ph.D., University of Wisconsin

## General Information

## Degrees and Areas of Concentration

The department offers work in Asian, African, and 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. The Department no longer offers a full online program at the MA level although online courses are usually available.

## 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.

## Undergraduate Studies

## General Education Requirements

History majors must meet the university and college general education requirements. History courses that will satisfy the university's state requirement are:
HIST 1001, American Civilization
HIST 1002, American Civilization
HI ST 1003, African-American History
HI ST 1004, The History of Women in the United States
HIST 2007, The History of Missouri
HIST 2041, Topics in American Constitutional History
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.

All the 1000 level, majors must take one course in U.S. History:
HIST 1001, American Civilization to 1865
HIST 1002, American Civilization 1865 to present
HI ST 1003, African-American History
HIST 1004, The History of Women in the United States
Plus one course in European History:
HIST 1030, The Ancient World
HIST 1031, Topics in European Civilization: The Emergence of Western Europe to 1715
HIST 1032, Topics in European Civilization: 1715 to the Present
Plus One course in African, Asian, Latin American, or World History:
HIST 1041, East Asian Civilization
HI ST 1042, East Asian civilization
HI ST 1051, Latin American Civilization
HI ST 1061, African Civilization to 1800
HIST 1062, African Civilization Since 1800
HIST 1064, The African Diaspora Since 1800

HIST 1075, World History to 1500
HI ST 1076, World History Since 1500
Plus two additional courses at the 1000 level on any subject
2000 and 3000 level courses offer in-depth historical content. At the 2000 and 3000 levels, students may count between one and three 3-credit courses toward their major (3-9 credits.) At least one of the courses at this level must be in the fields of African, Asian, or Latin American History

In addition, all students must take: 2999 Introduction to Historical Inquiry (4 credit hours)
4000 level courses are designed primarily for majors and focus on developing historical writing and thinking skills. At the 4000 level, students may count between two and four sections of History 4142 and/or 4143 toward their major (6-12 credits.)

In addition, students must complete History 4999, Senior Seminar, (5 credit hours.) 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 4011 and 4012 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 History 4999 (5 credit hours) at UMSL.

## 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

1. Logic or Methodology: Choose one of the following courses in either logic or methodology.

ANTHRO 4308, Practicum in Cultural Research Methods
ANTHRO 4310, Laboratory Methods in Archeology

HIST 2999, Introduction to Historical Inquiry
PHI L 3360, Formal Logic
PHIL 4460, Advanced Formal Logic
PSYCH 2219, Research Methods
SOC 3230, Research Methods
2. History: Choose two of the following courses in history of science and technology ( 6 credit hours).

ECON 3800, History of Economic Thought
HIST 2089, History of Ideas in the West
HI ST 2770, Introduction to Transportation
HIST 2772, History of Aviation in American Life
HIST 2773, Urbanization and Transportation
HIST 3143, Inquiries in Transnational History: Introduction to the History of
Science (Note: History 3143 is offered under different topics; only the specific topic listed here counts as HPST.)
PHIL 4483, Topics in History and Philosophy of Science
PHI L 4484, Topics in History and Philosophy of Medicine
PSYCH 3400, Conceptual and Historical Foundations of Psychology
3. Science: 9 credit hours in the mathematical, physical, life, behavioral, or social sciences. 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 HST 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 HST 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 HST.
3. Submit both to the HST undergraduate advisor for approval.

## Bachelor of Liberal Studies Option:

A minor in HST 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 History 4999 or Philosophy 4491. Since students taking History 4999 must have taken History 2999, it is suggest such students use History 2999 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, 12 hours including HIST/SEC ED 4013
- European or world history, 9 hours including HIST/SEC ED 4014
- United States and/or state government, 6 hours including POL SCI/SEC ED 4090
- behavioral science, 6 hours
- economics, 3 hours
- geography, 3 hours
- 2 hours of elective social studies credit.

Social science methods courses are HIST/SEC ED 4011

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 and a Graduate Certificate in Museum Studies. 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 options for graduate study, 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 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 15th for the Fall semester and October 15th for the Spring semester.

## 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 select three fields of study, the first with a minimum of four courses (each at 3 credit hours or more), the second and third with a minimum of two courses each (at 3 credit hours or more).
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. 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 6000level 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.

## Online Masters Program

In conjunction with Missouri Southern State University, the department of History at UMSL offers a route to the MA degree through online coursework. The requirements for the degree remain the same as in the conventional program. Students who wish to pursue the online Master's degree must apply specifically for this option by way of a note to that effect in the Comments section on the graduate application form. Students pursuing this path are expected to take one course per semester. Missouri K-12 teachers are given preference in the admission process. Some online courses may require students to visit either the UMSL or Missouri Southern State campus once per semester. At least one-third of total credit hours must be taken with instructors at each institution. Normally, only students with a 3.35 grade point average in their undergraduate major are admitted to this track. The deadlines for applications are March 15th for the Fall semester and October 15th for the Spring semester.

## 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) 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 HIST 2999) 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:
At the 1000 level, majors must take one course in U.S. History:
HIST 1001, American Civilization to 1865
HIST 1002, American Civilization 1865 to present
HI ST 1003, African American History
HIST 1004, The History of Women in the United States
Plus one course in European History
HI ST 1030, Ancient Empires of the Mediterranean
HI ST 1031, Topics in European Civilization: the Emergence of Western Europe to 1715
HIST 1032, Topics in European Civilization: 1715 to the Present

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Plus: One course in African, Asian, Latin American, or World History
HIST 1041, East Asian Civilization
HIST 1042, East Asian Civilization
HIST 1051, Latin American Civilization
HIST 1052, Mexican Civilization
HIST 1061, African Civilization to }180
HIST 1062, African Civilization Since }180
HIST 1064, The African Diaspora Since }180
HIST 1075, World History to }150
HIST 1076, World History Since }150
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Plus two additional courses at the 1000 level on any subject.
At the 2000 level, students must receive a grade of C or higher in HIST 2999, Introduction to Historical Inquiry (4)

Once admitted to the program students must take the following courses:
Additional Undergraduate History Requirements For Students in the 2+3 Program
HIST 4999, Senior Seminar (5)
NOTE: B.S.-Ed. students must also take History 4012, 4013 and 4014.
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 (students must take two of their three 5000-level courses prior to enrolling in History 6000), 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:

## 1. 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, Psychological Statistics or SOC 3220, Sociological Statistics, or their equivalent.

## 2. 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.

## Museum Studies

## Master of Arts in History (Museum Studies) and Graduate Certificate in Museum Studies

These options are intended for students planning to pursue professional careers in museums. In addition to the core requirement of substantive courses in history, the Museum Studies program includes intensive training in the theory and practice of museology. This innovative program is a collaboration between the Departments of History, Anthropology, and Art and Art History, the Missouri Historical Society and the St. Louis Mercantile Library. It is taught by a combination of professors and practicing professionals from St. Louis-area museums. Recognizing that the museums field is in a period of rapid change, the program is designed to train students
for leadership in the emergence of a new paradigm of museology that focuses on relationships between museums and the people and communities that they serve.

For most students this will be a terminal master of arts degree, fully preparing graduates for immediate entry into museum careers in a variety of positions. While the core requirement focuses on history studies, the museological training is applicable to employment in any type of museum.

## Admission Requirements

Applicants wishing to enter the Museum Studies concentration must apply specifically for that concentration on the graduate application; successful application for the general M.A. program in history does not automatically provide access to the Museum Studies program. Applications for the Museum Studies concentration will be accepted only for the fall semester. Because of the prescribed sequence of course work, no midyear entry into the program will be allowed.

In addition to the general criteria of the Graduate School, applicants for the Museum Studies concentration must meet several additional criteria of the Department of History and the museum studies program. Applicants' undergraduate studies need not have been in history, but they must demonstrate high academic potential. Normally, the history department admits only students with a 3.2 grade point average in their undergraduate major; most successful applicants have higher grades. Applicants must submit three letters of recommendation, preferably from former teachers and/or employers, and a sample of their written work. The sample may or may not be academic work, and length is not a consideration. Besides these departmental requirements, applicants must submit the Museum Studies Supplemental Application. The supplemental application includes a statement of intent for pursuit of a museum career.

The departmental Graduate Committee and the director of the museum studies program will base their admissions decisions upon the undergraduate transcript, the letters of recommendation and the sample of written work.

Applications for the museum studies program must be received by the university no later than March 1.

## Museum Studies Concentration--39 hours total

All candidates for the M. A. in History with a Concentration in Museum Studies must complete HIST 6134, 6135, 6136, and 6137. These courses are cross listed under the same numbers in the Anthropology Department and the Art and Art History Department. Students may enroll through the department of their choice. All candidates must also complete ART HIS 5588 Museum Education and Visitor Research and ANTHRO 6139 Practicum in Exhibit and Program Development. Together, these courses provide a solid foundation in the theory and history of museology and in practical skills for museum work. As a final requirement, candidates must complete HIST or ANTHRO or ART HIS 6138. This exit project will be the capstone demonstration of competence in museum studies. The specific nature of this demonstration will be customized to the interests and career aspirations of each student. It may take the form of a traditional thesis, an exhibit project, or some other appropriate form, as approved in advance by the candidate's advisory committee.

In addition to these requirements, all candidates must complete 15 hours of elective history course work, with no more than 6 hours of history at the 3000 level. Museum Studies students will take courses distributed in any proportion between the fields of "United States to 1865" and "United States Since 1865." Both the director of the Museum Studies Program and the graduate director of the History Department must approve in advance any exceptions to this requirement (e.g., selections of courses from another field, such as European or African history).

## Graduate Certificate in Museum Studies (19 hours)

A very limited number of positions may be available for students who wish to pursue only the Graduate Certificate in Museum Studies without seeking the M.A. in History. In most cases, these will be students who already hold an advanced degree and are currently working or planning to work in a museum but who have had no formal training in museum studies. Candidates for the Graduate Certificate must complete HIST 6135, 6136, 6137, and 6138, ART HIS 5588, and ANTHRO 6139. Contact the director of the Museum Studies Program for availability and special application procedures.

## 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, and HIST/TCH ED 6115 and 6116. 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.

## Languages and Cultures

Undergraduate Studies | Course Descriptions | Department of Anthropology, Sociology, and Languages |

## UMSL Home <br> Languages and Cultures Home Page <br> Faculty

Susan E. Brownell, Professor, Chairperson
Ph.D., University of California-Santa Barbara
Lorna V. Williams, Professor, Spanish
Ph.D., Indiana University
Jeanne Morgan Zarucchi, Professor, French and Art History
Ph.D., Harvard University
Lauren B. Schmidt, Assistant Professor, Spanish
PhD., Indiana University
Roland A. Champagne, Professor Emeritus, French,
Ph.D., Ohio State University
Albert J. Camigliano, Associate Professor Emeritus, German
Ph.D., University of Wisconsin
Ingeborg M. Goessl, Assistant Professor Emerita, German
Ph.D., University of Kansas
Deborah Baldini, Teaching Professor, Spanish
Ph.D., University of Missouri-St. Louis
Anne-Sophie Blank, Associate Teaching Professor, French
M.A., Washington University

Martha Caeiro, Associate Teaching Professor, Spanish
M.A., Washington University

Donna Cays, Associate Teaching Professor, Spanish
M.A., Saint Louis University

Elizabeth Eckelkamp, Associate Teaching Professor, Japanese
M. A., Washington University

Suzanne Hendrickson, Associate Teaching Professor, French
Ph.D., Washington University
Nancy Mayer, Associate Teaching Professor, ESL
M.A.T., Webster University

Denise Mussman, Associate Teaching Professor, ESL
M.A., University of Illinois-Chicago

Margaret B. Phillips, Associate Teaching Professor, Latin
Ph.D., Saint Louis University
Sandra Trapani, Associate Teaching Professor, French
M. A., University of Missouri-Columbia

Susan Yoder-Kreger, Associate Teaching Professor, Spanish
M.A., University of Virginia, Charlottesville

Maria Teresa Balogh, Assistant Teaching Professor, Spanish
M.A., Southern Illinois University, Carbondale, MFA, University of Missouri-St. Louis

Andrew Bennett, Assistant Teaching Professor, Spanish
M. A., Arizona State University

Elizabeth Fonseca, Assistant Teaching Professor, Spanish
Ph.D., University of Iowa, Iowa City
Kersten Horn, Assistant Teaching Professor, German
M.A., University of Texas, Austin

Elizabeth Landers, Assistant Teaching Professor, French, Director of Language Programs
Ph.D., Washington University
Maria Kouti, Lecturer, Greek and Spanish
M.A., International University Menéndez Pelayo, Spain

Fushun, Le, Lecturer, Chinese
M.A., Iowa State University

Rosalinda Mariles, Lecturer, Spanish
M.S., Southern Illinois University, Edwardsville

Amy Michael, Lecturer, J apanese
M.A., Washington University

## General Information

## Degrees and Areas of Concentration

Languages and Cultures in the Department of Anthropology, Sociology, and Languages offers course work in French, German, 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 as a Second Language, Arabic, Chinese, Ancient Greek, 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.

## 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 and literature 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 applied 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 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. $2115 \mathrm{a}, 2115 \mathrm{~b}$, and 2115 c 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.

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 FL 4589 (same as SEC ED 4589), Curriculum and Methods of Teaching Foreign Languages, FL 4590 (same as SEC ED 4590), 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 modernlanguage, 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 French Language and Culture III, or the equivalent
FRENCH 2170, Intermediate French Language and Culture
FRENCH 2180, Readings in French
Five of the following six:
FRENCH 3200, French Grammar in Review
FRENCH 3205, French in Commerce and Media
FRENCH 3211, Contemporary French Culture
FRENCH 3271, Intermediate French Conversation
FRENCH 3280, French Literature and Culture to 1800
FRENCH 3281, French Literature and Culture after 1800
and three courses at the 4000-level.

## Specific Requirements for concentration in Spanish

Each major with a Spanish concentration must complete the following courses:
SPANISH 2101, Intermediate Spanish Language and Culture, or the equivalent or
SPANISH 2172, Spanish Composition +2172A Grammar for Spanish Composition
One of the following two:
SPANISH 2180, Readings in Spanish +2180A Grammar for Readings in Spanish or

SPANISH 2199, Special Topics: Language Immersion: Spanish + 2199A Grammar for Special Topics:
Language Immersion

SPANISH 3210, Hispanic Culture and Civilization: Spain, or SPANISH 3211, Hispanic Culture and
Civilization: Spanish America + 3210/3211A Grammar for Hispanic Culture and Civilization
SPANISH 3280, Introduction to Hispanic Literature: Spain
SPANISH 3281, Introduction to Hispanic Literature: Spanish America
Plus two additional courses at the 3000-level (see course descriptions for more details) and three courses at the 4000-level, one of which must be SPANI SH 4399, Seminar on Hispanic Literature

Specific Requirements for the concentration in German
Each major with a concentration in German must complete the following courses:
GERMAN 2101 Intermediate German Language and Culture
GERMAN 2170 Intermediate Practice in Speaking and Writing German
GERMAN 2180 Intermediate Readings in German
GERMAN 3201 Introduction to German Literature
GERMAN 3202 Introduction to German Film
GERMAN 3208 The German-Speaking Countries in the Modern World
Plus one additional course at the 3000-level
And three courses at the 4000-level

Specific Requirements for the concentration in J apanese
Each major with a concentration in Japanese must complete the following courses:
J APAN 2101 (5) Intermediate J apanese I
J APAN 2102 (5) Intermediate Japanese II
J APAN 3201 Intermediate J apanese III
J APAN 3202 Intermediate J apanese IV
J APAN 3280 Readings in J apanese
J APAN 4301 Advanced J apanese I
J APAN 4302 Advanced J apanese II
J APAN 4390 Advanced Readings in J apanese
Plus three courses for a total of 9 hours in Japanese Studies
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: Linguistic, 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, J apanese 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 " $\mathbf{A}$ " 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 Intermediate French Language and Culture
FRENCH 2180, Readings in French
Plus two French courses on the 3000-level or above.

## Specific requirement for the minor in German

GERMAN 2170 Intermediate Practice in Speaking and Writing German
GERMAN 2180 Intermediate Readings in German
Plus two German courses on the 3000-level or above.
Specific requirement for the minor in J apanese
J PN 2102(5) Intermediate J apanese II
J PN 3201 Intermediate J apanese III
J PN 3201 Intermediate Japanese IV
Plus one course in J apanese Studies

## Specific requirement for the minor in Spanish

Two of the following three
SPANISH 2199, Special Topics: Language Immersion: Spanish + 2199A Grammar for Special Topics: Language Immersion
SPANISH 2172, Composition + 2172A Grammar for Spanish Composition
SPANISH 2180, Readings in Spanish + 2180A Grammar for Readings in Spanish

## 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 at online

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. International Studies and Programs 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)

## A. French

FRENCH 2170, Intermediate French Language and Culture
FRENCH 2180, Readings in French
B. German

GERMAN 2170, Composition and Conversation
GERMAN 2180, Readings in German
C. Spanish

SPANISH 2172, Spanish Composition + SPANISH 2172A Grammar for Spanish Composition
SPANISH 2180, Readings in Spanish + SPANISH 2180A Grammar for Readings in Spanish
D. Japanese

J APAN 2102 Intermediate J apanese II
J APAN 3201 Intermediate J apanese III

## 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.

# Department of Mathematics and Computer Science 

Undergraduate Studies \| Graduate Studies | Course Descriptions

## UMSL Home

Department of Mathematics and Computer Science Home Page

## Faculty

A Prabhakar Rao., Professor, Interim Chairperson
Ph.D., University of California, Berkeley
Charles Chui, Curators' Professor
Ph.D., University of Wisconsin
Uday K. Chakraborty, Professor
Ph.D., J adavpur University
Qingtang Jiang, Professor
Ph.D., Peking University
Sanjiv K. Bhatia, Associate Professor
Ph.D., University of Nebraska-Lincoln
Haiyan Cai, Associate Professor
Ph.D., University of Maryland
Adrian Clingher, Associate Professor
Ph.D., Columbia University
Ronald Dotzel, Associate Professor
Ph.D., Rutgers University
Wenjie He, Associate Professor
Ph.D., University of Georgia
Cezary Janikow, Associate Professor
Ph.D., University of North Carolina at Chapel Hill
Hyung Woo Kang, Associate Professor
Ph.D. Korea Advanced Institute of Science and Technology (KAIST)
Shiying Zhao, Associate Professor
Ph.D., University of South Carolina
Shahla Peterman, Teaching Professor
M.S., University of Wisconsin- Madison

Galina N. Piatnitskaia, Teaching Professor
Ph.D., Moscow Physical-Technical Institute
Michael Schulte, Associate Teaching Professor
M.S., Florida Institute of Technology

Qiang Sun Dotzel, Assistant Teaching Professor
M.A., University of Missouri-St. Louis

Nazire Koc, Assistant Teaching Professor
M.S., Southern Illinois University, Carbondale

Emily Ross, Assistant Teaching Professor
M. A., Saint Louis University

J ennifer Shrensker, Assistant Teaching Professor
M.A., Washington University

Albert Stanger, Academic Coordinator and Assistant Teaching Professor
M.A., University of Missouri-St. Louis

Joyce Langguth, Teaching Associate
B.S. Ed., Southeast Missouri State University

Raymond Balbes, Professor Emeritus
Ph.D., University of California, Los Angeles
William Connett, Professor Emeritus
Ph.D., University of Chicago
Richard Friedlander, Founders Professor
Ph.D., University of California, Los Angeles
Wayne L. McDaniel, Professor Emeritus
Ph.D., Saint Louis University

Stephen Selesnick, Professor Emeritus<br>Ph.D., University of London<br>Jerrold Siegel, Professor Emeritus<br>Ph.D., Cornell University<br>Grant V. Welland, Professor Emeritus<br>Ph.D., Purdue University<br>Frederick Wilke, Associate Professor Emeritus<br>Ph.D., University of Missouri-Columbia<br>John Antognoli, Teaching Professor Emeritus<br>M.A., University of Missouri-St. Louis

## 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.

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.

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.

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.

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.

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. 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, Analytic Geometry and Calculus II, or MATH 2000, Analytic Geometry and Calculus III. These students are urged to consult with the department before planning their programs. Credit for MATH 1800, Analytic Geometry and Calculus I, will be granted to those students who complete MATH 1900 with a grade of C- or better.

Similarly, students who are ready to begin their computer science studies with CMP SCI 2250, Programming and Data Structures, will be granted credit for CMP SCI 1250, Introduction to Computing, once they complete CMP SCI 2250 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

1) The following courses are required:

CMP SCI 1250, Introduction to Computing
MATH 1320, Applied Statistics I
MATH 1800, Analytic Geometry and Calculus I
MATH 1900, Analytic Geometry and Calculus II
MATH 2000, Analytic Geometry and Calculus III
MATH 2020, Introduction to Differential Equations
MATH 2450, Elementary Linear Algebra
MATH 3000, Discrete Structures
MATH 4100, Real Analysis I
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 4400,
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
MATH 4400, Introduction to Abstract Algebra, and one must be chosen from:
MATH 4660, Foundations of Geometry or MATH 4670, Introduction to Non-Euclidean Geometry

## Bachelor of Science in Mathematics

In addition to the core requirements, the B.S. in Mathematics degree requires:

1) Completing all of the following:

MATH 4160, Complex Analysis I
MATH 4400, Introduction to Abstract Algebra
MATH 4450, Linear Algebra
2) 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:

Two courses from the following list:
CMP SCI 2250, Programming and Data Structures
CMP SCI 2700, Computer Architecture and Organization
CMP SCI 3130, Design and Analysis of Algorithms
CMP SCI 4140, Theory of Computation
CMP SCI 4410, Computer Graphics
CMP SCI 4440, Digital Image Processing
2) Statistics:

MATH 4200, Mathematical Statistics I
MATH 4210, Mathematical Statistics II
3) Biology:

BIOL 2102, General Ecology
BIOL 2103, General Ecology Laboratory
4) Biology:

BIOL 2012, Genetics
BIOL 4182, Population Biology
5) Chemistry:

CHEM 1111, Introductory Chemistry I
CHEM 1121, Introductory Chemistry II
6) Chemistry:

CHEM 3312, Physical Chemistry I and another 3000-level, or above, chemistry course

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7) Economics:
ECON 1001, Principles of Microeconomics
ECON 1002, Principles of Macroeconomics
ECON 4100, Introduction to Econometrics
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8) Philosophy:

PHIL 3360, Formal Logic
PHIL 3380, Philosophy of Science
PHIL 4460, Advanced Formal Logic

## 9) Physics:

PHYSICS 2111, Physics: Mechanics and Heat
PHYSICS 2112, Physics: Electricity, Magnetism, and Optics
10) Physics:

PHYSICS 3221, Mechanics and another 3000 level, or above, physics course

## 11) Business Administration:

LOG OM 3320, Introduction to Operations Management and one of the following courses:
LOG OM 4321, Production and Operations Management
LOG OM 4326, Quality Assurance in Business
LOG OM 4330, Business-Logistics Systems
LOG OM 4350, Management Science Methods
12) Engineering:

ENGR 2310, Statics
ENGR 2320, Dynamics
Degree Requirements in Computer Science
Candidates for the B. S. Computer Science degree must complete the following work:

\author{

1) Computer Science Core <br> CMP SCI 1250, Introduction to Computing
}

CMP SCI 2250, Programming and Data Structures
CMP SCI 2261, Object-Oriented Programming
CMP SCI 2700, Computer Architecture and Organization
CMP SCI 2750, System Programming and Tools
CMP SCI 3010, Web Programming
CMP SCI 3130, Design and Analysis of Algorithms
CMP SCI 4250, Programming Languages
CMP SCI 4280, Program Translation
CMP SCI 4500, Software Engineering
CMP SCI 4760, Operating Systems
2) Computer Science Electives

Five more elective computer science courses, numbered above 3000.
3) Mathematics and Statistics

MATH 1320, Applied Statistics I
MATH 1800, Analytic Geometry and Calculus I
MATH 1900, Analytic Geometry and Calculus II
MATH 2450, Elementary Linear Algebra
MATH 3000, Discrete Structures
4) Additional Skills

ENGL 3130, Technical Writing
There are no related area requirements for majors in Computer Science

## 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, Introduction to Computing
CMP SCI 2250, Programming and Data Structures
and three additional computer science courses numbered 2000 or above.
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, Analytic Geometry and Calculus I
MATH 1900, Analytic Geometry and Calculus II
MATH 2000, Analytic Geometry and Calculus III
and two additional three-hour mathematics courses numbered above 2400, excluding 2510. 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, Applied Statistics I
MATH 4200, Mathematical Statistics I
and two additional courses in statistics numbered above 4200. 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 (pending CBHE approval)
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:
MATH 4200, Mathematical Statistics I
MATH 4210, Mathematical Statistics II
MATH 4010, Financial Mathematics I
MATH 4020, Financial Mathematics II
FI NANCE 3500, Financial Management
FI NANCE 3521, Financial Engineering: Applying Derivatives

## 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, either by taking the GRE subject area examinations or by explicitly 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.

1. Programming skills in C or C++ and Java (CMP SCI 1250 or 2250, and 2261)
2. Proficiency with Object-Oriented concepts and terminology (CMP SCI 2261)
3. Proficiency with dynamic data structures (CMP SCI 2250)
4. Proficiency with computer organization, architecture, or assembly level programming (CMP SCI 2700)
5. Proficiency with design and time/space analysis of algorithms (CMP SCI 3130)
6. 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 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, Real Analysis I
MATH 4160, Complex Analysis I
MATH 4450, Linear Algebra
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, 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.

Doctor of Philosophy in Applied Mathematics
The program has two options:

## 1) Mathematics Option <br> 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 (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, 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, 4160, 4450).

## Computer Science Option:

Topics from the theory of programming languages, operating systems, analysis of algorithms, and computer systems (CMP SCI 4250, 4760, 5130, 5700).

## Additional Requirement

After fulfilling the basic requirement above, the student must meet one of the following:
a. 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.
b. 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 $a$ ) and b), 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, Ph.D. Dissertation Research. A maximum of 9 hours in MATH 7990 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:

1. Operating Systems, CMP SCI 4760
2. Programming Languages, CMP SCI 4250
3. Computer Systems, CMP SCI 5700
4. Software Engineering, CMP SCI 5500
5. Advanced Data Structures and Algorithms, CMP SCI 5130

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 CS 6900, 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.

## 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.

# Department of Philosophy 

Undergraduate Studies | Graduate Studies | Course Descriptions

## UMSL Home

Department of Philosophy Home Page

## Faculty

Gualtiero Piccinini, Associate Professor, Chairperson
Ph.D., University of Pittsburgh
Berit Brogaard, Professor
Ph.D., SUNY-Buffalo
Jon McGinnis, Professor
Ph.D., University of Pennsylvania
Stephanie Ross, Professor
Ph.D., Harvard University
John Brunero, Associate Professor
Ph.D., Columbia University
Eric Wiland, Associate Professor
Ph.D., University of Chicago
Robert M. Gordon, Research Professor
Ph.D., Columbia University
Andrew Black, Teaching Professor
Ph.D., University of Massachusetts-Amherst
David Griesedieck, Teaching Professor
M.A. Princeton University

Jill Delston, Assistant Teaching Professor
Washington University in St. Louis
Waldemar Rohloff, Assistant Teaching Professor
Ph.D., University of California-Irvine
Peter Fuss, Professor Emeritus
Ph.D., Harvard University
Ronald Munson, Professor Emeritus
Ph.D., Columbia University
John E. Clifford, Associate Professor Emeritus
Ph.D., University of California-Los Angeles
Henry L. Shapiro, Assistant Professor Emeritus
Ph.D., Columbia University
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.

## General I nformation

## Undergraduate Studies

## General Education Requirements

Majors must meet the university and college general education requirements. 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

1. Acquire basic knowledge of traditional philosophical issues in the western tradition.
2. Develop critical thinking skills based on knowledge of the standards governing logical reasoning.
3. Acquire familiarity with philosophical issues that arise in some other disciplines (e.g. biology, art, education, etc.).
4. Acquire a basic understanding of ethical and social-political principles and their role in resolving ethical disputes and in evaluating social practices and institutions.
5. 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 basic course requirements. 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

1) History of Philosophy, two courses:

PHIL 1110, History of Western Philosophy I, or PHIL 3301, Ancient History
PHIL 1111, History of Western Philosophy II, or PHIL 3303, Early Modern Philosoph
2) Logic, one of the following:

PHIL 1160, Logic and Language
PHIL 3360, Introduction to Formal Logic
3) Normative Philosophy, one of the following:

PHIL 1130, Approaches to Ethics
PHI L 4430, Social and Political Philosophy
PHI L 4435, Classical Ethical Theories
PHIL 4438, Recent Ethical Theory
4) Junior Level Requirement, one of the following:

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
5) Core Requirement, one of the following:

PHI L 4440, Theories of Knowledge
PHI L 4445, Metaphysics
6) PHIL 4491, Senior Seminar

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

1) PHIL 4487, Topics in Philosophy of Law
2) Two Courses from the following:

PHIL 2251, Sexual Ethics
PHIL 2252, Philosophical Foundations of Criminal Justice
PHIL 2254, Business Ethics
PHIL 2255, Environmental Ethics
PHIL 2256, Bioethics
PHI L 2258, Medicine, Values, and Society*
PHI L 2283, Markets and Morals
PHIL 4430, Social and Political Philosophy
PHI L 4435, Classical Ethical Theory
PHI L 4437, Metaethics
PHI L 4438, Recent Ethical Theory
PHI L 4439, Topics in Ethical Theory
Science Studies

1) PHIL 3380, Philosophy of Science
2) Two of the following, at most one at the 2000 level:

PHIL 2258, Medicine, Values, and Society*
PHIL 2281, Darwinism and the Philosophy of Biology
PHI L 2282, Philosophy of Science in Historical Perspective
PHIL 4465, Theory of Decisions and Games
PHIL 4479, Philosophy of Cognitive Science
PHIL 448, Topics in the Philosophy of Science
PHI L 4482, Philosophy of Social Science
PHI L 4483, Topics in History and Philosophy of Science
Psychology and Neuroscience

1) PHIL 3378, Philosophy of Mind
2) Any two of the following:

PHIL 2280, Minds, Brains, and Machines
PHIL 3380, Philosophy of Science
PHIL 4465, Theory of Decisions and Games
PHIL 4478, Topics in the Philosophy of Mind
PHIL 4479, Philosophy of Cognitive Science
Ethics and Society

1) Any two of the following:

PHIL 4430, Social and Political Philosophy
PHI L 4435, Classical Ethical Theory
PHIL 4437, Metaethics
PHI L 4438, Recent Ethical Theory
PHIL 4439, Topics in Ethical Theory
2) Any one of the following:

PHIL 2251, Sexual Ethics
PHIL 2254, Business Ethics
PHIL 2255, Environmental Ethics
PHIL 2256, Bioethics
Health Sciences

1) PHIL 2256, Bioethics
2) Any two of the following:

PHIL 2251, Sexual Ethics
PHIL 2257, Happiness and the Meaning of Life
PHIL 2258, Medicine, Values, and Society*
PHIL 2280, Philosophy of Science
PHIL 4478, Topics in the Philosophy of Mind
PHIL 4479, Philosophy of Cognitive Science
History

1) Any one of the following:

PHIL 3301, Ancient Philosophy
PHIL 3302, Medieval Philosophy
PHI L 4401, Plato
PHI L 4402, Aristotle
PHIL 4410, Significant Figures in Philosophy (depending upon the historical figure)
2) Any one of the following:

PHIL 3303, Early Modern Philosophy

PHIL 3304, Kant and Nineteenth-Century Philosophy
PHI L 4405, The Rationalists
PHIL 4406, The British Empiricists
PHIL 4407, Kant
PHI L 4408, Hegel
PHI L 4410, Significant Figures in Philosophy (depending upon the historical figure)
3) Either a course from the following or an additional course from one of the above categories:

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
PHI L 4403, Topics in the History of Philosophy
PHIL 4421, The Analytic Tradition
PHI L 4435, Classical Ethical Theories
PHIL 4483, Topics in History and Philosophy of Science

* 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 PHIL 3360, 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.

## The Minor:

Minor in Philosophy
The undergraduate minor in philosophy requires any 15 hours of 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. All course work for the minor 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.

## 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

1. Math: Choose one of the following courses in either statistics or calculus

BIOL 4122, Biometry
ECON 3100, Economic Statistics
MATH 1320, applied Statistics I
MATH 1800, analytic Geometry and Calculus I
PSYCH 2201, Psychological Statistics
SOC 3220, Sociological Statistics
2. Logic and Methodology: Choose one of the following courses in either logic or methodology.

ANTHRO 4308, Practicum in Cultural Research Methods
ANTHRO 4310, Laboratory Methods in Archaeology
HI ST 2999, Introduction to Historical Inquiry

PHIL 3360, Formal Logic
PHIL 4460, Advanced Formal Logic
PSYCH 2219, Research Methods
SOC 3230, Research Methods
3. Philosophy: Philosophy of Science (PHIL 3380) plus one of the following other courses in the philosophy of science and technology ( 6 credits total).

PHI L 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
PHI L 4479, Philosophy of Cognitive Science
PHIL 4480, Topics in Philosophy of Science
PHI L 4482, Philosophy of Social Science
PHIL 4483, Topics in History and Philosophy of Science
PSYCH 3400, Conceptual and Historical Foundations of Psychology
4. Science: 6 credit in the mathematical, physical, life, behavioral, or social sciences. 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 Philosophy 4491 or History 4004. Since students taking history 4004 must have taken history 2999, it is suggested such students use History 2999 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) heor 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

1. History: Choose two of the following courses in History of Science and Technology ( 6 credit hours).

ECON 3800, History of Economic Thought
HIST 2089, History of Ideas in the West
HI ST 2770, I ntroduction to Transportation
HIST 2772, History of Aviation in American Life
HI ST 2773, Urbanization and Transportation
HIST 3143, Inquiries in Transnational History: Introduction to the History of Science (Note: History 3143 is offered under different topics; only the specific topics listed here counts as HPST).

PHIL 3383, The History of Science in Philosophical Perspective
PHIL 4483, Topics in History and Philosophy of Science
PHIL 4484, Topics in History and Philosophy of Medicine
PSYCH 3400, Conceptual and Historical Foundations of Psychology
2. Philosophy: Philosophy of Science (PHIL 3380) plus one of the following another courses in the philosophy of science ( 6 credit hours).

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
PHI L 4479, Philosophy of Cognitive Science
PHIL 4480, Topics in Philosophy of Science
PHI L 4482, Philosophy of Social Science
PHI L 4483, Topics in History and Philosophy of Science
PSYCH 3400, Conceptual and Historical Foundations of Psychology
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).

## 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:

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 HPST.
3. 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

1. The two entry level courses ( 8 credit hours):

BIOL 1811, Introductory Biology: From Molecules to Organisms
PSYCH 2211, Introduction to Biological Psychology
2. One statistics course selected from the list below (3 credit hours):

BIOL 4122, Biometry
MATH 1320, Applied Statistics I
PSYCH 2201, Psychological Statistics
SOC 3220, Sociological Statistics
3. Two elective courses ( 6 credit hours). At least one elective must be taken outside the student's major:

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
HONORS 3050, Advanced Honors Seminar in the Sciences
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: Drigs and Mental Illness
PSYCH 4314, Behavioral Neuroscience
PSYCH 4330, Hormones, the Brain and Behavior
PSYCH 4349, Human Learning and Memory
4. At least 3 credits from two semesters of research experience. 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.

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

## Graduate Studies

## Expected Learning Outcomes

1. Acquire advanced knowledge of traditional philosophical issues in the western tradition.
2. Develop critical thinking skills based on knowledge of the standards governing logical reasoning.
3. Acquire familiarity with philosophical issues that arise in some other disciplines (e.g. biology, art, education, etc.).
4. Acquire a basic understanding of ethical principles and their role in resolving ethical disputes.
5. 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: Graduate Formal Logic here at UMSL. Students should take PHIL 5400: 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 5495 and 5595). 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: 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: 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: 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 and/or 5595 . 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

## A. To be taken in the junior year:

Choose four courses (12 credit hours) from the following:

1) PHIL 3360: Formal Logic
2) Two courses in the History of Philosophy, each at the 2000 level or above.
3) One additional Philosophy course, at the 2000 level or above.

## B. To be taken in the senior year:

Choose six courses (18 credit hours) from the following:
PHIL 4491: Senior Seminar
Either
PHI L 4445: Metaphysics or
PHI L 4440: Theories of Knowledge.
Two History courses, each at the upper division
One course from the PHIL 4470-PHIL 4487 sequence
Choose one of the following:
PHIL 4430: Social and Political Philosophy
PHIL 4435: Classical Ethical Theory
PHIL 4438: Recent Ethical Theory
C. To be taken in the final year of the program:

Six courses ( 18 credit hours)

1) At least five of these courses must be at or above the 5000 level.
2) 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

3) PHIL 5400: 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.

## Course Descriptions

Prerequisites may be waived by consent of the department.
PHIL 1120, 1125 fulfill the Cultural Diversity requirement [CD].

## PHIL 1021 Choice and Chance (3) [C, MS]

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 score of 22 or higher on the UMSL Math Placement Test, obtained in the six months prior to enrollment in this course. Same as MATH 1021. This course provides an introduction to inductive logic and the theory of probability. We will present 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 1090 Philosophy Looks at the Arts (3) [V, H]

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 [V, H]

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) [V, H]

Lectures and discussions tracing the development of Western philosophy from its beginnings among the preSocratics 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) [V, H]

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.

## PHI L 1120 Asian Philosophy (3) [CD, V, H]

Critical study of selected philosophical classics of India and China.
PHIL 1125 I slamic Philosophy (3) [CD, V, H]
Introduction to Arabic philosophy in the Islamic classical period (roughly from mid-9th through 12th centuries). Considers philosophical and theological background and examines the thought of such notable Islamic philosophers as al-Kindi, Ibn Sina, al-Ghazali, and Ibn Rushd. Topics 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 distinction between essence and existence.

PHIL 1130 Approaches to Ethics (3) [V, H]
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 Major Questions in Philosophy (3) [V,H]
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) [V, H]

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 Logic and Language (3) [V, H]
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) [C, V, SS, H]

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. The course will be worth 6 SCHs .

## PHIL 1175 Arts and Ideas (3) [H]

Same as ST ART 1175, ENGL 1175, HIST 1175, M H L T 1175, TH DAN 1175. An Interdisciplinary course tied to the semester's offerings at the Blanche Touhill Performing Arts Center as well as other events on campus featuring the visual arts, literature, music, and film. Each semester the course will provide background on the arts in general and will critically examine particular performances and offerings. Special themes for each semester will be selected once the Touhill schedule is in place. Students will be expected to attend 6-8 performances or exhibitions. Can be repeated once for credit.

## PHIL 1180 Sciences vs. God (3) [V, S]

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) [V, H]

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.

PHI L 2250 Philosophy and Current Issues (3)
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)
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) [V, H]

Same as CRIMIN 2252. Addresses 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) [ V, H]

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) [V, H]

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) [V, H]
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) [V, H]

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) [V,H]
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.

## PHI L 2258 Medicine, Values, and Society (3) [V, H]

Social, conceptual, and policy issues connected with medicine form the focus of the course. Topics may include: role played by race and gender in design of research and distribution of care; whether diseases are socially constructed categories reflecting the values of society; development of social policies that offer universal access to health care; the legitimacy of using Psychotropic drugs to enhance life, rather than treat disease. The course differs from Bioethics by emphasizing policy issues and their conceptual basis. Content of this course may vary.

## PHI L 2259 Engineering Ethics (3)

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, honest in engineering, and risk, safety, and liability.

PHI L 2276 Philosophy of Film (3) [V,H]
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 2280 Minds, Brains, and Machines (3) [C, V, H]
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)

Prerequisites: Six hours of 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 morality; 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) [C]

The 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.

## PHI L 2283 Markets and Morals (3) [V, H]

Prerequisite: 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)

Same as INTBUS 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)

Freshmen 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.

PHI L 3302 Medieval Philosophy (3)
A critical study of the important philosophies of the period from Augustine 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)
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)

A study of Kant and such major nineteenth-century figures as Hegel and Nietzsche, Mill, and Peirce. 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)

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)
Prerequisite: Six hours of philosophy or consent of instructor. A study of selected American philosophers.
PHIL 3360 Formal Logic (3)
An introductory study of logical truth and deductive inference, with emphasis on the development and mastery of a formal system.

PHIL 3374 Philosophy of Art (3)
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)

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 well.

PHIL 3380 Philosophy of Science (3)
An examination of science: what makes science special? Topics may include (but are not limited to): empiricism and scientific method; confirmation and the problem 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?

PHI L 4401 Plato (3)
Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. A study of selected Platonic dialogues.

PHI L 4402 Aristotle (3)
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 4403 Topics in the History of Philosophy (3)
Prerequisitess: Six hours of philosophy (PHIL 3301, 3302 or 3303 strongly recommended) or consent of instructor. Examines in depth a particular topic or topics of school of thought from the history of philosophy. This is a variable content course and may be taken again for credit with the consent of the instructor and department chair.

PHI L 4405 The Rationalists (3)
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.

## PHI L 4406 The British Empiricists (3)

Prerequisite: 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)

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)
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.

PHI L 4410 Significant Figures in Philosophy (3)

Prerequisites: Nine hours of philosophy, graduate standing, or consent of instructor. Examination of the work of an important twentieth-century philosopher or philosophical movement. The philosopher or movement to be studied will be announced prior to registration. This is a variable content course that may be taken again for credit with approval of instructor and department chair.

## PHI L 4420 Topics in Non-Western Philosophy (3)

Prerequisites: PHIL 1120, graduate standing, or consent of instructor. An extensive exploration of issues in some particular non-Western traditions (Islamic, Indian, or Chinese). This is a variable content course and may be taken again for credit with consent of instructor and department chair.

## PHIL 4421 The Analytic Tradition (3)

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.

## PHI L 4430 Social and Political Philosophy (3)

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 Theories

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)

Prerequisites: 6 credit hours of Philosophy. The 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)

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)

Prerequisites: PHIL 4435, 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 consent of instructor and department chair.

## PHIL 4440 Theories of Know ledge (3)

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.

## PHI L 4445 Metaphysics (3)

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.

## PHI L 4450 Special Readings in Philosophy (1-3)

Prerequisite: Special consent required. Independent study through readings, reports, and conferences. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

## PHI L 4451 Special Topics in Philosophy (3)

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 department chair.

PHI L 4452 Feminism And Science (3)
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.

## PHI L 4457 Media Ethics (3)

Same as MEDIA ST 4357. Prerequisites: nine hours of philosophy or nine hours of communication or consent of instructor. This course is concerned with some of the issues that arise from the intersection of ethics and modern media communications. Attention is given to some of the more specific concerns of media ethics, such as truth, honesty, fairness, objectivity and bias; personal privacy and the public interest; advertising; conflicts of interest; censorship and offensive or dangerous content (pornography, violence). Particular attention will be given to problems posed by the development of personal computer communications through bulletin boards, on-line services, and the Internet.

## PHIL 4458 Ethics and the Computer

Prerequisites: 6 hours of course work above the level of MATH 1030 in Math/Computer Science or at least 6 hours of philosophy or consent of instructor. 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)

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 4470 Topics in Philosophy of Language (3)

Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. Intensive examination of selected problems encountered in developing philosophical accounts of truth, reference, propositional attitudes, and related concepts. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

## PHIL 4474 Topics in Aesthetics (3)

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 and may be taken again for credit with consent of instructor and department chair.

## PHI L 4478 Topics in Philosophy of Mind (3)

Prerequisites: PHIL 3378 or six hours of other philosophy courses graduate standing, 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 consent of instructor and department chair.

## PHIL 4479 Philosophy of Cognitive Science (3)

Prerequisites: PHIL 3378 or PHIL 4478 or nine hours of other philosophy courses or consent of instructor. An exploration of the philosophical foundations and implications 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)

Prerequisite: 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.

## PHI L 4482 Philosophy of Social Science (3)

Prerequisites: Six hours of philosophy or consent of instructor. An intensive examination of selected topics such as the nature theory, and the postmodernism debate e.g., Habermas of explanation in social science versus natural science, interpretation, Foucault, Clifford. This course may be repeated for credit on approval by the department.

PHIL 4483 Topics in History and Philosophy of Science (3)
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)

Same as CRIMIN 4487. Prerequisite: CRIMIN 1100 and 3 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)

Prerequisites: Senior standing; at least 12 hours of philosophy at the 1000 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)

Prerequisite: 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.

PHI L 5403 Seminar on Themes in the History of Philosophy (3)
Prerequisite; 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.

## PHI L 5410 Seminar in Significant Figures in Philosophy (3)

Prerequisite: Graduate Standing. In-depth study of work of a single philosopher. The philosopher selected will be announced prior to registration. This is a variable-content course any may be taken again for credit with consent of instructor and department chair.

## PHI L 5478 Seminar in Philosophy of Mind (3)

Prerequisite: Graduate standing. Topics may include functionalism and physicalism; representation and nature of propositional attitudes such as belief, desire, and 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 instructor and department chair.

## PHI L 5495 Thesis Research (3)

Prerequisite: Graduate standing or consent of instructor. May be repeated once for credit with consent of instructor and department chair.

## PHIL 5521 Seminar in Analytic Philosophy (3)

Prerequisite: 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, Kripe possible-world semantics, theories of propositions, the analysis of knowledge, contextualism in epistemology and language, relativistic semantics, epistemic twodimensionalism, 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)

Prerequisite: Graduate standing or consent of instructor. An intensive study of contemporary philosophical debate about such issues such as civil liberty, economic justice, political decision-making, and state authority. Variable content course and may be taken again for credit with consent of instructor and department chair.

## PHI L 5537 Seminar in Metaethics (3)

Prerequisite: Graduate standing or consent of instructor. The 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 5538 Seminar in Ethical Theory (3)
Prerequisite: Graduate standing or consent of instructor. Answers questions from normative ethics or metaethics, which may include the following: 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)
Prerequisite: 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 consent of instructor and department chair.

PHIL 5545 Seminar in Metaphysics (3)

Prerequisite: 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 consent of instructor and department chair.

## PHIL 5546 Seminar in Modality (3)

Prerequisites: Graduate standing or consent of instructor. Intensive study of selected topics, texts, or individuals in modality. Topics may include (but are not limited to): Kripke semantics, Lewis' genuine modal realism about possible worlds, linguistic ersatzism, epistemic two-dimensionalism, conceivability vs. possibility, theories of epistemic modals, theories of propositional attitude reports, theories of knowability, provability, and computability, modal paradoxes, 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 5551 Special Readings in Philosophy (3)

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 consent of instructor and department chair.

## PHIL 5560 Seminar in Logic (3)

Prerequisite: Graduate standing. Focused study of topics in logic and/or its history. Representative topics include Aristotelian logic, modal logic, Gödel incompleteness theorems, relevance logic, paraconsistent logic, free logic. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

## PHIL 5561 Graduate Formal Logic (3)

Prerequisites: 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 5570 Seminar in Philosophy of Language (3)

Prerequisite: Graduate standing or consent of instructor. Close study of selected topics, texts, or individuals in the philosophy of language. Topics may include (but are not limited to): theories of indexicals and demonstratives, theories of proper names and descriptions, sense and reference, compositionality, natural language semantics, syntax pragmatics, 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 5579 Seminar in Philosophy of Cognitive Science (3)
Prerequisite: Graduate standing. General topics include role of computation in cognitive science, merits of symbolic computation and connectionism, aims and methods of artificial intelligence, and 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 consent of instructor and department chair.

## PHIL 5580 Seminar in Philosophy of Science (3)

Prerequisite: Graduate standing or consent of instructor. Focus on recent issues and controversies. Topics may include theories and observation, models of explanation, confirmation, realism and antirealism, empiricism and naturalism, "social construction" and feminist views of science. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

## PHIL 5582 Seminar in Philosophy of Social Science (3)

Prerequisite: 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.

## PHI L 5590 Philosophical Issues in Other Disciplines (3)

Prerequisite: Graduate standing or consent of instructor. 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 consent of instructor and department chair.

# Department of Physics and Astronomy 

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## UMSL Home

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## Faculty

Bernard J oseph Feldman, Professor and Chairperson
Ph.D., Harvard University
J acob J. Leventhal, Curators' Professor
Ph.D., University of Florida
Ta-Pei Cheng, Professor Emeritus
Ph.D., Rockefeller University
Ricardo A. Flores, Professor
Ph.D., University of California-Santa Cruz
Thomas F. George, Professor and Chancellor
Ph.D., Yale University
Peter Herwig Handel, Professor
Ph.D., University of Bucharest
Bob Londes Henson, Professor
Ph.D., Washington University
Jingyue Liu, Professor
Ph.D., Arizona State University
Richard Dean Schwartz, Professor Emeritus
Ph.D., University of Washington
Bruce A. Wilking, Professor
Ph.D., University of Arizona
Sonya Bahar, Associate Professor
Ph.D., University of Rochester
Philip Fraundorf, Associate Professor
Ph.D., Washington University
Erika Gibb, Associate Professor
Ph.D., Rensselaer Polytechnic Institute
Eric Majzoub, Associate Professor
Ph.D., Washington University
Wilfred H. Sorrell, Associate Professor Emeritus
Ph.D., University of Wisconsin
Dan Zhou, Research Associate Professor
Ph.D., University of Arizona
Michael Fix, Associate Teaching Professor
A.M., Washington University

Xiangfeng Liu, Research Assistant Professor
Ph.D., Chinese Academy of Sciences
Charles E. Burkhardt, Adjunct Professor
Ph.D. Washington University
Lu Fei, Adjunct Associate Professor
Ph.D., University of Missouri-St. Louis
J. Daniel Kelley, Adjunct Professor

Ph.D., Georgetown University
Mary J ane Kernan, Adjunct Associate Professor
Ph.D., Washington University
Florencia Lopez Leban, Adjunct Assistant Professor
Ph.D. University of Missouri-St. Louis
Guoqiang Li, Adjunct Assistant Professor
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## General Information

## Degrees and Areas of Concentration

The Department of Physics and Astronomy offers 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. Any of the following courses may be used to satisfy the physical science requirement:
ASTRON: 1001, 1001A, 1011, 1012, 1050, 1051, 1121
ATM SCI : 1001, 1001A
GEOL 1001, 1002, 1001A, 1002A
PHYSICS: 1001, 1011, 1012, 2111, 2112.

## Degree Requirements

All physics majors, who are transfer students, must complete PHYSICS 1099, Windows on Physics. First time freshman must take INTDSC 1003. 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 and CMP SCI 1250. 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:
PHYSICS 2111, Physics: Mechanics and Heat
PHYSI CS 2112, Physics: Electricity, Magnetism, and Optics
PHYSI CS 3200, Mathematical Methods of Theoretical Physics
PHYSI CS 3221, Mechanics
PHYSI CS 3223, Electricity and Magnetism
PHYSI CS 3231, Introduction to Modern Physics I
Also required are:
MATH 1800, Analytic Geometry and Calculus I
MATH 1900, Analytic Geometry and Calculus II
MATH 2000, Analytic Geometry and Calculus III
MATH 2020, Introduction to Differential Equations
CHEM 1111, Introductory Chemistry I or equivalent

CMP SCI 1250, Introduction to Computer Science
Note: Students are urged to begin the calculus sequence [MATH 1800, 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.

## 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, PHYSICS 4311, or PHYSICS 4347 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
PHYSI CS 4311, Advanced Physics Laboratory I
PHYSICS 4323, Modern Optics
PHYSI CS 4331, Introduction to Quantum Mechanics
PHYSICS 4341, Thermal and Statistical Physics
PHYSICS 4350, Computational Physics
and three electives at or above the 4000 level in physics or astronomy.

## Astronomy

ASTRON 1050, Introduction to Astronomy I or ASTRON 1051, Introduction to Astronomy II

## Also required are:

Mathematics
MATH 2450, Elementary Linear Algebra
and one elective in mathematics at or above the 3000 level, or in computer science at or above the 2000 level.

## Chemistry

CHEM 1121, Introductory Chemistry II, or equivalent.

## 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

PHYSI CS 4323, Modern Optics
PHYSI CS 4331, Introduction to Quantum Mechanics
PHYSICS 4341, Thermal and Statistical Physics
PHYSICS 4350, Computational Physics

## Astronomy

ASTRON 1050, Introduction to Astronomy I
ASTRON 1051, Introduction to Astronomy II
ASTRON 4301, Astrophysics
ASTRON 4322, Observational Astronomy
And one physics elective at or above the 4000 level. With consent of the astronomy adviser, there may be substitution of ASTRON 1001, 1001A, 1011 or 1012 for 1050 or 1051.

## Also required:

Mathematics
MATH 2450, Elementary Linear Algebra

## 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:

J oint Engineering
ENGR 2310, Statics
ENGR 2320, Dynamics
J oint Electrical Engineering
JE ENGR 2300, Introduction to Electrical Networks
Physics
PHYSICS 4310, Modern Electronics
PHYSICS 4311, Advanced Physics Laboratory I
PHYSI CS 4323, Modern Optics
PHYSICS 4331, Introduction to Quantum Mechanics
PHYSICS 4341, Thermal and Statistical Physics

## Mathematics

MATH 1320, Applied Statistics I
MATH 2450, Elementary Linear Algebra
Also required is one elective in mathematics at or above the 3000 level, or in a computer science at or above the 2000 level.

## 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, Modern Electronics
PHYSI CS 4347, Biophysics of Imaging

## Biology

BIOL 1811, Introductory Biology I: From Molecules to Organisms
BIOL 1821, Introductory Biology II: Organisms and the Environment
and two additional physics electives at the 4000 level.
Also required are:
Chemistry
CHEM 1121, I ntroductory Chemistry II
CHEM 2612, Organic Chemistry I
CHEM 2622, Organic Chemistry II
CHEM 2633, Organic Chemistry Laboratory

## 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

PHYSI CS 4341, Thermal and Statistical Physics

## Biology

BIOL 1811, Introduction to Biology I: From Molecules to Organisms
BIOL 1821, Introduction to Biology II: Organisms and the Environment
BI OL 2482, Microbiology
BIOL 2483, Microbiology Laboratory

Optometry (fourth year only)
OPTOM 8020, Geometric Optics
OPTOM 8060, Biochemistry
OPTOM 8120, Ocular Optics
OPTOM 8140, Physical Optics and Photometry
Also required are:
Chemistry
CHEM 1121, I ntroductory Chemistry II
CHEM 2612, Organic Chemistry I
CHEM 2622, Organic Chemistry II
CHEM 2633, Organic Chemistry Laboratory
Psychology
PSYCH 1003, General Psychology and one elective in psychology

## Statistics,

MATH 1320, Applied Statistics I or PSYCH 2201, Psychological Statistics
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:

Philosophy
PHIL 3380, Philosophy of Science
BIOL 1811, Introductory Biology I: From Molecules to Organisms
BIOL 2102, General Ecology or another Environmental Science
CHEM 1111, I ntroductory Chemistry I
CHEM 1121 , I ntroductory Chemistry II
PHYSI CS 2111, Physics: Mechanics and Heat
PHYSI CS 2112, Physics: Electricity, Magnetism, and Optics
GEOL 1001, General Geology or ATM SCI 1001, Elementary Meteorology or ASTRON 10xx
Physics Endorsement
Physics
PHYSI CS 3200, Mathematical Methods of Theoretical Physics
PHYSICS 3221, Mechanics
PHYSICS 3223, Electricity and Magnetism
PHYSI CS 3231, Introduction to Modern Physics
PHYSICS 4310, Modern Electronics
PHYSI CS 4311, Advanced Physics Laboratory I
PHYSICS 4802, or SEC ED 3240, Methods of Teaching Science in Secondary Schools
PHYSI CS 4837, Teaching Intern Seminar

## 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, Windows on Physics or INTDSC 1003, Freshman Success Seminar
PHYSICS 2111, Mechanics and Heat

PHYSI CS 2112, Electricity, Magnetism, and Optics
PHYSICS 3200, Mathematical Methods of Theoretical Physics
and two additional emphasis courses chosen from the following
PHYSICS 3221, Mechanics
PHYSI CS 3223, Electricity and Magnetism
PHYSICS 3231, Introduction to Modern Physics I
PHYSICS 4310, Modern Electronics
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, 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. 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:

## First Semester

PHYSICS: 6000 level and 4000, 5000 level course
Total: 6 hours
Second Semester
PHYSICS: 6000 level and 4000, 5000 level course
Total: 6 hours
Third Semester
PHYSICS: 6000 level and 4000, 5000 level course
PHYSICS 6490, Thesis Research or Seminar
Total: 9 hours
Fourth Semester
PHYSICS: 6000 level and 4000 level course
PHYSI CS 6490 Thesis Research or Seminar
Total: 9 hours

## 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 Ddepartment 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.

## Course Descriptions

Prerequisites may be waived by consent of the department. Courses in this section are grouped as follows: Astronomy; Atmospheric Science; Geology; and Physics.

## Astronomy

## ASTRON 1001 Cosmic Evolution/ Introductory Astronomy (4) [MI, MS]

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/ Introductory Astronomy (3) [MS]

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 per week. Same as ASTRON 1001 without the laboratory.

## ASTRON 1011 Planets and Life in the Universe (3) [ MS]

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 classroom hours per week.

## ASTRON 1012 The Violent Universe and the New Astronomy (3) [MS]

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 classroom hours and one observing session per week.

## ASTRON 1050 Introduction to Astronomy I (3) [MS]

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) [MS]

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) [MS]

Prerequisite: ASTRON 1001 or 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)

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)

Prerequisites: 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

## ATM SCI 1001 Elementary Meteorology (4) [MS, MI]

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 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) [MS]

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 effects such as radiation, stability, storms, and general circulation. Same as ATM SCI 1001 without the learning enhancement session.

## Geology

## GEOL 1001 General Geology (4) [MI , MS]

Earth materials and processes, including geological aspects of the resource/energy problem. Laboratory involves identification of common rocks and minerals.

GEOL 1001A General Geology (3) [MS]
Earth materials and processes, including geological aspects of the resource/energy problem. Same as GEOL 1001 without the laboratory.

GEOL 1002 Historical Geology (4) [ MI , MS]
Prerequisite: GEOL 1001. Study of changes in geography, climate and life through geological time; origin of continents, ocean basins, and mountains in light of continental drift. Laboratory primarily involves description and identification of fossils.

GEOL 1002A Geology (3) [MS]
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.

## Physics

## PHYSICS 1001 How Things Work (3) [MS]

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.

PHYSI CS 1011 Basic Physics I (4) [MI, MS]
Prerequisite: 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 1012 Basic Physics II (4) [MI, MS]
Prerequisite: PHYSICS 1011. A continuation of PHYSICS 1011. A course specifically designed for students in health and life sciences covering the topics of 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.

PHYSI CS 1099 Windows on Physics (1)
A seminar designed to introduce physics majors to research areas in physics and physics-related fields in the Department of Physics \& 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.

Prerequisite: MATH 1900 (may be taken concurrently). PHYSICS 1001, or CHEM 1121, or equivalent is recommended. 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.

## PHYSI CS 2112 Physics: Electricity, Magnetism, and Optics (5) [MI, MS]

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 classroom hours, one hour discussion, and two hours of laboratory per week.

## PHYSI CS 3200 Mathematical Methods of Theoretical Physics (3)

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, and complex variables. Applications to electrostatics, mechanics, and fluid dynamics are emphasized. Three classroom hours per week.

## PHYSICS 3221 Mechanics (3)

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 the Lagrangian and Hamiltonian formulations of mechanics are covered. Three classroom hours per week.

PHYSI CS 3223 Electricity and Magnetism (3)
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 classroom hours per week.

PHYSI CS 3231 Introduction to Modern Physics I (3)
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, Schrödinger equation, with applications to atomic physics; and radiation; the physics of solids; elementary particles; special relativity; health physics. Three classroom hours per week.

## PHYSICS 3281 Directed Readings in Physics (1-5)

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 from regular courses. Hours arranged.

## PHYSICS 3390 Research (1-10)

Prerequisite: Consent of department. Independent research projects arranged between student and instructor. Hours arranged.

## PHYSI CS 4305 Bayesian Data Analysis for the Sciences (3)

Prerequisite: 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.

## PHYSI CS 4306 Nanoscience Practicals (1-3)

Prerequisite: Consent of Instructor ( 1.0 credit hour per module with a maximum of 3 credit hours) Studies of nanoscience characterization, synthesis, and 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.

## PHYSI CS 4308 Transmission Electron Microscopy (3)

Same as BIOL 4308. 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)

Prerequisite: 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, nearfield optical probes, metrology, and lateral force/displacement microscopy. Applications in physics, chemistry, biology, engineering, and surface science are discussed. Two classroom hours and two hours laboratory per week.

## PHYSICS 4310 Modern Electronics (3)

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, adc/dac converters, noise reduction, microprocessors, embedded microcontrollers, and digital processing. Six hours of laboratory per week.

## PHYSI CS 4311 Advanced Physics Laboratory I (3)

Prerequisites: 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 of laboratory per week.

## PHYSICS 4323 Modern Optics (3)

Prerequisite: PHYSICS 3223. A study of modern optics including diffraction theory, polarization, light propagation in solids, quantum optics, and coherence. Three classroom hours per week.

## PHYSI CS 4331 I ntroduction to Quantum Mechanics (3)

Prerequisites: PHYSICS 3200 and PHYSICS 3231. Photons and the wave nature of particles; wave mechanics, the Schroedinger equation, operator and matrix formulations, and Dirac notation; applications to single particle systems, atomic physics, and spectroscopy. Three classroom hours per week.

PHYSI CS 4341 Thermal and Statistical Physics (3)
Prerequisites: MATH 2000 and PHYSICS 3231. Introduction to statistical mechanics, classical thermodynamics and kinetic theory. Three classroom hours per week.

PHYSI CS 4343 Selected Topics in Physics I (3)
Prerequisites: PHYSICS 3221, PHYSICS 3223, PHYSICS 3231, and PHYSICS 4341. Topics include special phenomena from research areas such as scattering of waves, biophysics, nonlinear physics, geophysical fluid dynamics and the atmospheric sciences treated by methods of advanced mechanics, thermodynamics and quantum mechanics. Three classroom hours per week.

## PHYSICS 4347 Biophysics of Imaging (4)

Prerequisites: PHYSICS 3231, BIOL 1811, BIOL 1821. 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.

## PHYSI CS 4350 Computational Physics (3)

Prerequisites: CMP SCI 1250, plus PHYSICS 3221, PHYSICS 3223, and PHYSICS 3231. Computer analysis in physics; solutions of eigenvalue problems; coupled differential equations. Three classroom hours per week.

## PHYSI CS 4351 Elementary Solid State Physics (3)

Prerequisite: PHYSICS 4331. Theoretical and experimental aspects of solid state physics, including onedimensional band theory of solids; electron emission from metals and semiconductors; electrical and thermal conductivity of solids. Three classroom hours per week.

## PHYSICS 4353 Physics of Fluids (3)

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. Three classroom hours per week.

PHYSI CS 4354 Atmospheric Physics (3)
Prerequisites: PHYSICS 4341 and 3221. The mathematical application of physical laws to atmospheric dynamics and physical meteorology. Application of mechanics, thermodynamics, optics, and radiation to atmospheric phenomena including the ionosphere. Three classroom hours per week.

PHYSICS 4365 Introduction to Plasma Physics (3)
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. Three classroom hours per week.

## PHYSICS 4370 Relativity and Cosmology (3)

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. Three classroom hours per week.

## PHYSI CS 4381 Directed Readings in Physics (1-10)

Prerequisite: Consent of instructor. An independent study of special topics in physics for senior undergraduates or graduate students.

## PHYSI CS 4802 Curriculum and Methods of Teaching Physical Sciences (3)

Prerequisites: TCH ED 3310 and a near-major in the subject matter. 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 prior to student teaching. This course must be completed in residence.

## PHYSI CS 4837 Chemistry/ Physics Teaching Intern Seminar (1)

Same as CHEM 4837. Prerequisite: CHEM 4802 or PHYSICS 4802. A seminar to accompany student teaching covering integration of physical science curricula and methods into the classroom setting. To be taken concurrently with Secondary Student Teaching, SEC ED 3290 One hour discussion per week.

## PHYSI CS 5307 Advanced Scanning Electron Microscopy (3)

Prerequisite: Consent of instructor. This course introduces students to advanced scanning electron microscopy techniques and their applications to solving challenging materials and biological problems. The 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.

## PHYSI CS 5345 Nonlinear Dynamics and Stochastic Processes (3)

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)

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. Three classroom hours per week.

## PHYSI CS 5402 Introduction to Mathematical Physics (3)

Prerequisite: 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 classroom hours per week.

## PHYSI CS 5403 Principles of Mathematical Physics (3)

Prerequisite: 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 classroom hours per week.

## PHYSI CS 6300 Master's Thesis (3)

Prerequisites: 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)
Prerequisites: Must have a faculty mentor and approval of the Department Chair. A study of special topics in physics for graduate students.

PHYSI CS 6401 Special Topics (1-4)
Prerequisite: Consent of instructor. This course is designed to give the Department an opportunity to test a new course.

## PHYSICS 6404 Experimental Research Techniques (3)

Prerequisite: Graduate standing. Experiments in various fields of physics designed to stress techniques and experimental approach.

PHYSI CS 6405 Theoretical Physics I (3)
Prerequisites: PHYSICS 3221 and PHYSICS 3223 or equivalent. Newton's laws applied to simple systems, central force problem, variational principles. Lagrangian and Hamiltonian formulations, electrostatics. Maxwell field operations, wave propagation.

PHYSI CS 6406 Theoretical Physics II (3)
Prerequisites: PHYSICS 3231, PHYSICS 4341, or equivalent, and PHYSICS 6405. Schroedinger equation and wave mechanical treatment of simple systems: perturbation theory; identical particles and spin. Laws of thermodynamics, canonical systems; thermodynamic potentials and Maxwell equations, open systems, and chemical potential. Clausius-Clapeyron equation.

PHYSICS 6407 Modern Physics (3)
Prerequisite: PHYSICS 4331. A study of some of the more important concepts of modern physics.
PHYSI CS 6409 Theoretical Mechanics I (3)
Prerequisite: PHYSICS 3221. Classical mechanics, methods of Newton, Lagrange, and Hamilton, applied to motion of particles and rigid bodies, elasticity, and hydrodynamics.

## PHYSI CS 6410 Seminar (variable hours)

Prerequisite: Approval of department chair. Discussion of current topics.

## PHYSICS 6411 Electrodynamics I (3)

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, and conservation laws.

PHYSI CS 6413 Statistical Mechanics (3)
Prerequisites: PHYSICS 4331 and PHYSICS 4341. A study of statistical ensembles; Maxwell-Boltzmann, FermiDirac, and Einstein-Bose distribution laws, application to some simple physical systems.

PHYSICS 6415 Theoretical Mechanics II (3)
Prerequisite: PHYSICS 6409. Transformation theory of mechanics, Lagrange and Poisson brackets, HamiltonJacobi theory, introduction to the classical theory of fields.

PHYSICS 6417 Advanced Statistical Mechanics (3)
Prerequisite: PHYSICS 6413. A continuation of PHYSICS 6413. Further applications as to such topics as the imperfect gas, condensation and the critical region, magnetism, liquid state, and transport phenomena.

## PHYSICS 6423 Electrodynamics II (3)

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 multipoles. Relativity: covariant formulation of Maxwell's equations and conservation laws, fields of uniformly moving and accelerated charges.

PHYSICS 6425 Plasma Physics (3)
Prerequisites: PHYSICS 4341 and PHYSICS 6411. Fundamentals of kinetic theory, fluid equations, MHD equations, and applications; wave propagation, shielding effect, diffusion stability, and charged particle trajectories.

PHYSICS 6435 Cloud Physics (3)
Prerequisites: PHYSICS 3223 and PHYSICS 4341. A study of cloud microphysics and dynamics, atmospheric condensation and freezing nuclei, phase, precipitation mechanisms, aerosol scavenging, role of electrification, current dynamical models, and review of diagnostic techniques.

PHYSI CS 6455 Theoretical Nuclear Physics (3)
Prerequisite: PHYSICS 6461. A study of the basic properties of nuclei, nuclear scattering and forces, nuclear reactions, and models.

PHYSI CS 6461 Quantum Mechanics I (3)
Prerequisite: PHYSICS 4331. A study of the Schrödinger wave equation, operators and matrices, perturbation theory, collision, and scattering problems.

PHYSI CS 6463 Quantum Mechanics II (3)

Prerequisite: PHYSICS 6461. Continuation of PHYSICS 6461 to include such topics as Pauli spin-operator theory, classification of atomic states, introduction to field quantization. Dirac electron theory.

## PHYSICS 6465 Quantum Mechanics III (3)

Prerequisites: PHYSICS 6461 and PHYSICS 6463. Topics chosen from such fields as: relativistic quantum mechanics, potential scattering, formal collision theory, group theoretical methods in quantum mechanics, electrodynamics.

## PHYSI CS 6467 Quantum Statistical Mechanics (3)

Prerequisites: PHYSICS 6413 and PHYSICS 6463. Techniques for calculation of the partition function with examples drawn from interacting Fermi gas, interacting Bose gas, superconductors, and similar sources.

PHYSICS 6471 Atomic and Molecular Structure (3)
Prerequisite: PHYSICS 6461. Applications of quantum mechanics to the structure of atoms and molecules; perturbation and variational calculations, self-consistent fields, multiplets, angular momenta, Thomas-Fermi model, diatomic molecules, spectral intensities.

PHYSICS 6473 Atomic Collision Theory (3)
Prerequisite: PHYSICS 6471 or PHYSICS 6463. Basic quantum mechanical concepts involved in atomic scattering theory. Topics include: elastic and inelastic collisions of electrons and ions with neutral atoms and molecules; collisions between heavy particles; curve crossing; photo-processes; and Coulomb wave functions.

## PHYSICS 6475 Molecular Spectroscopy (3)

Prerequisite: PHYSICS 6461. Introduction to classical and quantum treatment of the vibrational and rotational structure and spectra of diatomic, linear triatomic, and simple polyatomic molecules: vibrational-rotational interactions, point group symmetry in simple infrared spectra analysis, calculations of vibrational frequencies, and normal coordinates of polyatomic atoms.

PHYSICS 6481 Physics of the Solid State (3)
Prerequisite: PHYSICS 6461. Crystal symmetry, point and space groups, lattice vibrations, phonons, oneelectron model, Hartree-Fock approximation, elementary energy band theory transport properties, the Boltzmann equation, introduction to superconductivity, semiconductors, and magnetism.

## PHYSI CS 6483 Selected Topics of the Solid State (3)

Prerequisite: PHYSICS 6481. Introduction to many- body perturbation theory, the use of Feynman diagrams. Green's functions, treatment of the electron-electron, phonon-phonon, and electron-phonon interactions, theory of magnetism, and theory of superconductivity.

## PHYSICS 6485 Advanced Quantum Mechanics (3)

Prerequisite: PHYSICS 6465. Selected topics such as many-body problems field theory, S matrix theory and symmetries.

## PHYSI CS 6490 Research (variable hours)

Prerequisites: 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 6493 Oral Examination

After completion of all other program requirements, oral examinations for on campus students may be processed during the first two weeks of an academic session or at any appropriate time for off-campus students upon enrollment in PHYSICS 6493 and payment of an oral examination fee. All other students must enroll for credit commensurate with uses made of facilities and/or faculties. In no case shall this be for less than three semester hours for resident students.

## PHYSI CS 6495 Continuous Registration

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. Billing will be automatic as will registration upon payment.

# Department of Political Science 

Undergraduate Studies \| Graduate Studies | Course Descriptions

## UMSL Home

Department of Political Science Home Page

## Faculty

E. Terrence J ones, Professor, Chairperson

Ph.D., Georgetown University
Joyce M. Mushaben, Curators' Professor
Ph.D., Indiana University
David B. Robertson, Curators' Teaching Professor
Ph.D., Indiana University
J. Martin Rochester, Curators' Teaching Professor

Ph.D., Syracuse University
Todd Swanstrom, E. Desmond Lee Endowed Professor in Community Collaboration \& Public Policy
Ph.D., Princeton University
Glen Hahn Cope, Professor, Provost and Vice Chancellor
Ph.D., Ohio State University
David C. Kimball, Professor, Graduate Director
Ph.D., Ohio State University
Kenneth P. Thomas, Professor
Ph.D., University of Chicago
Brian Fogarty, Associate Professor
Ph.D., University of North Carolina at Chapel Hill
J oel N. Glassman, Associate Professor, Director, International Studies and Programs, Associate Vice Provost
for Academic Affairs
Ph.D., University of Michigan
Barbara L. Graham, Associate Professor
Ph.D., Washington University
Jean-Germain Gros, Associate Professor
Ph.D., University of California-Berkeley
Ruth I yob, Associate Professor
Ph.D., University of California-Santa Barbara
Farida Jalalzai, Associate Professor
Ph.D., University of Buffalo
Nancy T. Kinney, Associate Professor and Academic Director, Nonprofit Managements \& Leadership Program
Ph.D., University of Colorado at Denver
Richard T. Middleton, IV, Associate Professor
Ph.D., University of Missouri-Columbia
Adriano Udani, Assistant Professor
Ph.D., University of Minnesona
Elizabeth Sale, Adjunct Associate Professor and Research Associate Professor, MIMH-Child \& Family
Ph.D., University of Missouri-St. Louis
Mark Tranel, Adjunct Associate Professor and Director, Public Policy Research Center
Ph.D., St. Louis University
Walter Siewert, Assistant Professor and Director, Center for Ethics and Public Life
Ph.D., University of California, Santa Barbara
Andrew Glassberg, Founders' Associate Professor
Ph.D., Yale University
Dennis R. Judd, Professor Emeritus
Ph.D., University of Illinois
Carol W. Kohfeld, Professor Emerita
Ph.D., Washington University
Lyman Tower Sargent, Professor Emeritus
Ph.D., University of Minnesota
G. Eduardo Silva, Professor Emeritus

Ph.D., University of California, San Diego
J. Fred Springer, Professor Emeritus

Ph.D., University of California-Davis
Lana Stein, Professor Emerita
Ph.D., Michigan University
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 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.

## 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 I nterdisciplinary 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.

## Undergraduate Studies

## General Education Requirements

Majors must satisfy the university and college general education requirements. 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, Introduction to American Politics
POL SCI 1500, Introduction to Comparative Politics
POL SCI 2000, Political Analysis
POL SCI 3950, Senior Seminar in Political Science
Majors are urged to take POL SCI 1100, 1500, and 2000 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 SCl 3950 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 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 POL SCI 6401, 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, and at least four of the following political science courses:

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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 3290, Studies in Public Law
POL SCI 3900, Special Readings (when appropriate)
POL SCI 3940, Public Affairs Internship (when appropriate)
POL SCI 4850, International Law
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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 at least five of the following political science courses:

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)
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, and at least four of the following political science courses:

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 3439, Studies in Policy Formation
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, Race, 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
POL SCI 4940, Leadership and Management in Nonprofit Organizations
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.

## I nternational 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, or POL SCI 2500, Comparing Different Worlds, and at least four of the following political science courses (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):

POL SCI 1600, Contemporary Political Ideologies
POL SCI 1820, Global Issues
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, Race, 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
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<br>POL SCI 1100, Introduction to American Politics<br>POL SCI 1500, Introduction to Comparative Politics<br>POL SCI 2000, Political Analysis<br>POL SCI 2400, Public Administration

POL SCI 2420, Introduction to Public Policy
POL SCI 3940, Public Affairs Internship
POL SCI 3950, Senior Seminar in Political Science
ECON 1001, Principles of Microeconomics
ECON 1002, Principles of Macroeconomics
CRI MI N 2220, Statistical Analysis in Criminology and Criminal Justice or
SOC 3220, Sociological Statistics or
ECON 3100, Economic Statistics
In addition, students must provide a demonstration of computer proficiency through one of the following:
BUS AD 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, 1500, 2400, 2000, 2420, 3940, and 3950.

## 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, Public and Nonprofit Personnel Management
POL SCI 3440, Public and Nonprofit Budgeting
BUS AD 2400, Fundamentals of Financial Accounting
Students in the public administration emphasis area also must take two of the political science courses listed under policy and institutions courses below, as well as take at least two additional elective courses chosen from among that list or any other political science offerings.

## 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:
POL SCI 1450, Introduction to Labor Studies
POL SCI 2280, Judicial Politics and Policy
POL SCI 2300, State Politics
POL SCI 2350, Introduction to Urban Politics
POL SCI 3300, The American Presidency
POL SCI 3331, Congressional Politics
POL SCI 3430, Union Leadership and Administration
POL SCI 3439, Studies in Policy Formation
POL SCI 3450, Urban Administration
POL SCI 3460, The Politics of Poverty and Welfare
POL SCI 3480, Environmental Politics
POL SCI 4460, Urban Planning and Politics
POL SCI 4510, Comparative Public Policy and Administration
POL SCI 4940, Leadership and Management in Nonprofit Organizations
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 ( 12 credit hours):
POL SCI 3420, Public and Nonprofit Personnel
POL SCI 3440, Public and Nonprofit Budgeting or
ACCTNG 2400, Fundamentals of Financial Accounting
POL SCI 3700, Nonprofit Organizations and Public Policy
POL SCI 3710, Nonprofits, Civil Society and Volunteerism
In addition, the Public Affairs Internship (POL SCI 3940) 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 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

Fifteen hours, chosen from the following political science courses:
POL SCI 1100, Introduction to American Politics
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, 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 3260, The Supreme Court
POL SCI 3300, The American Presidency
POL SCI 3331, Congressional Politics
POL SCI 3330, Introduction to Political Behavior
POL SCI 3340, Politics and the Media
POL SCI 3350, Political Parties and Elections
POL SCI 3390, Studies in American Politics
POL SCI 3900, Special Readings (when appropriate)
POL SCI 3940, Public Affairs Internship (when appropriate)

## Minor in Comparative Politics

POL SCI 1500, Introduction to Comparative Politics, plus 12 hours from the following political science
courses:
POL SCI 2500, Comparing Different Worlds
POL SCI 2510, The Politics of European Union
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 3570, Gender, Race, and Public Policy
POL SCI 3595, Studies in Comparative Politics
POL SCI 3900, Special Readings (when appropriate)
POL SCI 4510, Comparative Public Policy Administration
Minor in International Relations
Fifteen hours, chosen from the following political science courses:
POL SCI 1800, World Politics
POL SCI 1820, Global Issues
POL SCI 1850, Global Ecology
POL SCI 2520, Middle Eastern Politics
POL SCI 2820, United States Foreign Policy
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 4850, International Law
Minor in Nonprofit Administration (Pending CBHE approval)
Fifteen hours:
POL SCI 3420, Public and Nonprofit Personnel Management
POL SCI 3440, Public and Nonprofit Budgeting or
ACCTNG 2400, Fundamentals of Financial Accounting
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)

## Minor in Political Theory

Fifteen hours, chosen from the following political science courses:
POL SCI 1600, Contemporary Political Ideologies
POL SCI 2610, Ancient and Medieval Political Thought
POL SCI 2620, Modern Political Thought
POL SCI 2650, American Political Thought
POL SCI 3690, The Marxist Heritage
POL SCI 3900, Special Readings (when appropriate)

## Minor in Public Administration

POL SCI 2400, Public Administration, plus 12 hours chosen from the following political science courses:
POL SCI 2420, Introduction to Public Policy
POL SCI 3420, Public Personnel Management
POL SCI 3439, Studies in Policy Formation
POL SCI 3440, Public Budgeting
POL SCI 3450, Urban Administration
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

## Minor in Public Law

Fifteen hours, chosen from the following political science courses:
POL SCI 1200, Foundations of Law: An Introduction to Legal Studies
POL SCI 2260, Law, Politics and Society
POL SCI 2280, Judicial Politics and Policy
POL SCI 2290, Gender and the Law
POL SCI 3200, Constitutional Law
POL SCI 3210, Civil Liberties
POL SCI 3260, The Supreme Court
POL SCI 3290, Studies in Public Law
POL SCI 3900, Special Readings (when appropriate)
POL SCI 4850, International Law

## Minor in Public Policy

POL SCI 2420, Introduction to Public Policy, plus 12 hours chosen from the following political science courses:
POL SCI 2300, State Politics
POL SCI 2350, Introduction to Urban Politics
POL SCI 2400, Public Administration
POL SCI 3300, The American Presidency
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, Race, 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
Minor in Urban Politics
POL SCI 2350, Introduction to Urban Politics, plus 12 hours chosen from the following political science
courses:
POL SCI 2320, African-Americans and the Political System
POL SCI 3450, Urban Administration
POL SCI 3460, The Politics of Poverty and Welfare
POL SCI 3900, Special Readings (when appropriate)
POL SCI 3940, Public Affairs Internship (when appropriate)
POL SCI 4460, Urban Planning and Politics
Minor in Women and Politics
POL SCI 1550, Women and Politics in the Developing World and 12 hours from among the following political science courses:
POL SCI 2290, Gender and the Law
POL SCI 2380, The Politics of Gender in the United States
POL SCI 3439, Studies in Policy Formation (consent of instructor required)
POL SCI 3460, The Politics of Poverty and Welfare
POL SCI 3570, Gender, Race, and Public Policy (Comparative)
POL SCI 3590, Politics, Leadership and the Global Gender Gap
POL SCI 3900, Special Readings (consent of instructor required)

POL SCI 4940, Leadership and Management in Nonprofit Organizations (consent of instructor)
Outstanding BSPPA students may want to consider the BSPPA/MPPA $2+3$ program. 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.

## 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.

## 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, Introduction to Policy Research
and three of the following political science courses:
POL SCI 6410, Introduction to Policy Analysis
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
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 fulltime 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 three 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

1. Students must take

POL SCI 1100, Introduction to American Politics
POL SCI 1500, Introduction to Comparative Politics
2. PLUS two of the following:

POL SCI 1600, Contemporary Political Theory
POL SCI 1800, World Politics
POL SCI 2300, State Politics
POL SCI 2350, Introduction to Urban Politics
POL SCI 2400, Introduction to Public Administration
POL SCI 2650, American Political Thought
B. Undergraduate Requirements Within the $2+3$ Program

1. Two of the following:

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, Gender, Race and Public Policy
POL SCI 3480, Environmental Politics
2.PLUS two of the following:

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 American \& 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
3. Plus one additional course from B-1 or B-2
C. Graduate Requirements

1. POL SCI 6401, Introduction to Policy Research (3 credits)
2. PLUS 3 of the following ( 9 credits):

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
3. PLUS 5 additional graduate Political Science classes ( 15 credits).

Students should select an emphasis in American Politics, Public Policy, Comparative Politics, Political
Theory, or International Relations.
4. PLUS Exit Project or Internship or Thesis ( 6 credits)

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 a) complete academic transcripts, b) three letters of recommendation, c) aptitude tests of the GRE and d) 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
I nternship ( 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

## 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.

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.

## 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 Untied 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.

## Course Descriptions

## POL SCI 1100 Introduction to American Politics (3) [V, SS, ST]

Introduction to basic concepts of government and politics with special reference to the United States, but including comparative material from other systems.

POL SCI 1200 Foundations of Law: An Introduction to Legal Studies (3)
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) [MI, SS]
This course covers many topics important to the role of unions in the American political system and American society from a labor perspective. institutional structure, collective bargaining strategies Topics include the role of workers in current and future times, unions' 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) [MI, V, SS, CD]
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.

POL SCI 1550 Women and Politics in the Developing World (3) [MI , V, SS, CD]
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 ways that modernity, universal education, the market economy and globalization have widened the scope of women's public activities; 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; the re-interpretation of religious doctrines, especially those that emphasize women's "return" to the private sphere and legitimate the denial of women's political rights.

POL SCI 1600 Contemporary Political I deologies (3)
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) [V, SS]
An introduction to the field of international relations, covering such topics as nationalism, power, foreign policy-making, diplomacy, war, arms control and disarmament, interdependence, the regulation of conflict, and other aspects of politics among nations.

POL SCI 1820 Global Issues (3) [MI, SS]
A freshman- and sophomore-level course designed to introduce students to a range of global concerns, including population, hunger, trade, energy, and the environment. The worldwide implications of these and other problems will be considered, as well as their effects on local communities such as St. Louis.

POL SCI 2000 Political Analysis (3)
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)
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) [ST]

Prerequisite: POL SCI 1100 or 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 function 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) [ST]
Same as GS 2290. Legal position of women in the United States, emphasizing constitutional law, criminal law, domestic relations, and fair employment practice laws. 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 nongovernmental 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) [ST]
Prerequisite: POL SCI 1100 or consent of instructor. An examination of contemporary state politics in the United States; social, economic, and political determinants of policies; federal-state-local relations; elections, interest groups, and participation; executive, legislative, and judicial institutions and policies, and their impact.

POL SCI 2320 African Americans and the Political System (3) [ST]
Prerequisite: 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.

## POL SCI 2350 Introduction to Urban Politics (3) [ST]

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.

POL SCI 2380 The Politics of Gender in the United States (3) [ST]
Same as GS 2380. Prerequisite: 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 State requirements in American History and Government.)

POL SCI 2400 Public Administration (3) [ST]
Prerequisite: POL SCI 1100 or consent of instructor. Survey of public administration, with reference to organization, financial administration, personnel management, and judicial control of the administrative process.

POL SCI 2420 Introduction to Public Policy (3) [ST]
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.

## POL SCI 2500 Comparing Different Worlds (3)

This course focuses on the role of political institutions, economic structures and social groups in explaining differences in forms of government and levels of socioeconomic 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)

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) [CD]
Prerequisite: POL SCI 1100, or 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 effects of oil and the military will also be considered.

POL SCI 2530 Political Systems of South America (3) [CD]
Prerequisite: 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.

POL SCI 2540 Political Systems of Mexico, Central America, and the Caribbean (3) [CD]
Prerequisite: 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.

## POL SCI 2550 East Asian Politics (3) [CD]

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.

POL SCI 2580 African Politics (3) [CD]
Prerequisite: POL SCI 1500 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.

POL SCI 2610 Ancient and Medieval Political Thought (3)
Study of political thought from Plato to Machiavelli.
POL SCI 2620 Modern Political Thought (3)
Study of political thought from Machiavelli to the present.
POL SCI 2650 American Political Thought (3)
History of political thought in the United States from colonial times to the present.
POL SCI 2820 United States Foreign Policy (3)
Prerequisite: POL SCI 1100, or POL SCI 1500, or consent of instructor. Examination of the factors influencing the formation and the execution of United States foreign policy, with a focus on specific contemporary foreign policy issues.

POL SCI 2900 Studies in Political Science (3)
Selected topics in political science.
POL SCI 3200 Constitutional Law (3) [ST]
Prerequisite: POL SCI 1100, or POL SCI 1200, or consent of 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.

## POL SCI 3210 Civil Liberties (3) [ST]

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 the rights of defendants.

## POL SCI 3220 Labor Law (3)

Prerequisite: 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) [ST]

Prerequisite: POL SCI 1100, or POL SCI 1200, or consent of instructor. An examination of the role, function and assertion of power by the U.S. Supreme Court in our constitutional democracy. Topics include 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) [ST]
Prerequisite: POL SCI 1100 or consent of instructor. Study of the constitutional, political, legislative, and administrative roles played by the American chief executive in the development of public policy.

## POL SCI 3330 Introduction to Political Behavior (3) [ST]

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.

## POL SCI 3331 Congressional Politics (3) [ST]

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 HouseSenate comparisons. The role of Congress in foreign policy, economic policy, and social-welfare policy will be examined.

## POL SCI 3340 Politics and the Media (3)

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) [ST]
Prerequisite: POL SCI 1100 or consent of instructor. An examination of the part played by parties and elections in American politics. Topics include the historical development of the party system, the organization and management of political parties and campaigns, contemporary changes in the nature of electoral politics, and the effects of elections on public policy.

## POL SCI 3390 Studies in American Politics (3)

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)

Prerequisite: POL SCI 1100, or POL SCI 2400, or consent of instructor. A study of personnel practices in the public sector 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)

Prerequisite: 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)
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) [ST]
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.

## POL SCI 3460 The Politics of Poverty and Welfare (3)

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)
Prerequisite: Consent of instructor. 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, negotiations strategies and techniques, and the use of mediation and arbitration in the resolution of bargaining disputes.

POL SCI 3480 Environmental Politics (3)
Prerequisite: 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)
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: I dentity Politics and Transnational Communities (3)

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)
Same as GS 3590. Prerequisite: 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)

Prerequisite: POL SCI 1500 or consent of instructor. Selected topics in comparative politics. May be repeated.
POL SCI 3700 Nonprofit Organizations and Public Policy (3)
Prerequisite: POL SCI 1100; Recommended: POL SCI 2420. This course explores the role 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)

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 and appreciation for the characteristics of effective leadership and strategic use of volunteers. In addition, the course includes and 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)

Prerequisite: 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)
Prerequisite: POL SCI 1100 or POL SCI 1500, or consent of 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 the United Nations, and nongovernmental 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)
Prerequisites: Junior standing and POL SCI 1100, or 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)
Prerequisite: POL SCI 1100, or POL SCI 1500, or consent of instructor. Selected topics in international relations. May be repeated.

## POL SCI 3900 Special Readings (1-10)

Prerequisite: Consent of instructor. Independent study through readings, reports, and conferences. May be repeated.

## POL SCI 3940 Public Affairs I nternship (1-6)

Prerequisites: Junior standing and consent of instructor. Independent study involving work with an appropriate public or private agency. A maximum of 6 credit hours may be earned.

## POL SCI 3950 Senior Seminar in Political Science (3)

Prerequisites: Senior standing and consent of instructor. Required of all political science majors in their last year of course work 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 (3)

Same as ECON 4140 and SOC 4040. Prerequisites: 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 4090 American Government for the Secondary Classroom (3)
Prerequisites: POL SCI 4090/SEC ED 4090 must be taken concurrently with HIST/SEC ED 4011 except with special consent of the School Studies Coordinator. (Same as SEC ED 4090) 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 themes of American government, on expanding bibliography, and on choosing methods of inquiry for use in an interactive classroom. Either HIST 3257 /SEC ED 3257 or SEC ED 3258 or POL SCI 3209 /SEC ED 3209 must be taken the same semester as HIST 3255/SEC ED 3255 except with special consent of the Social Studies Coordinator. Can be counted towards the Political Science major requirement, but not the American Politics subgroup. Counts towards Social Studies Certification.

POL SCI 4460 Urban Planning and Politics (3) [ST]
Prerequisite: POL SCI 1100, or 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.

POL SCI 4510 Comparative Public Policy and Administration (3)
Prerequisite: POL SCl 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) [CD]
Prerequisite: POL SCl 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)
Prerequisite: POL SCI 1100, or 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)

Prerequisite: POL SCI 1100 or consent of Instructor. Selected topics in political science.
POL SCI 4911 Staff Management Issues in Nonprofit Organizations (1)
Same as SOC WK 4911 and P P ADM 4911. Prerequisite: Junior Standing. 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; and legal issues that affect these processes.

POL SCI 4912 Legal Issues in Managing Nonprofit Organizations (1)
Same as SOC WK 4912 and P P ADM 4912. Prerequisite: Junior Standing. 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.

POL SCI 4913 Financial Issues in Managing Nonprofit Organizations (1)
Same as SOC WK 4913 and P P ADM 4913. Prerequisite: Junior Standing. 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.

POL SCI 4940 Leadership and Management in Nonprofit Organizations (3)
Same as P P ADM 4940, SOC WK 4940, and SOC 4940. Prerequisite: Junior standing. Addresses the role and scope of the independent sector in the United States, as well as the leadership and sector, the role of volunteerism in a democratic management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent society, and the role and scope of philanthropy. Topics in include the dynamics, functions and membership voluntary organization management and leadership 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 4960 American Philanthropy and Nonprofit Resources Development (3)
Same as SOC WK 4960 and P P ADM 4960. Prerequisite: Junior standing or consent of instructor. 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.

## POL SCI 6401 Introduction to Policy Research (3)

Same as P P ADM 6010. 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)
Prerequisites: Graduate standing and POL SCI 6401. Elementary distribution theory, statistical inference, and an introduction to multiple regression. Emphasis on practical applications.

POL SCI 6403 Advanced Techniques in Policy Research (3)
Prerequisites: Graduate standing and POL SCI 6402. Selected topics in policy research emphasizing forecasting, modeling, and estimation.

POL SCI 6404 Multi-Method Research Design (3)
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)
Independent study through readings, reports, research projects, and conferences.
POL SCI 6410 Introduction to Policy Analysis (3)
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)
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 6420 Proseminar in Public Law (3)
Prerequisite: Graduate standing. 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)
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)
Prerequisite: Graduate standing. Analysis of public policies, as represented by laws, court decisions, and agency adjudication, judicial review, discrimination, affirmative action, urban planning, social welfare, intergovernmental relations, environmental law, freedom of information, and privacy concerns will be surveyed. The relationship between courts and the Constitution, courts and legislatures, and courts and the administrative process will be stressed.

POL SCI 6425 Directed Readings and Research in Public Law (1-10)
Independent study through readings, reports, research projects, and conferences.
POL SCI 6430 Proseminar in American Politics (3)
Study of individual and group political behavior, including socialization, participation, consensus formation, representation, and legislative and judicial behavior.

POL SCI 6431 Seminar in American Politics (3)
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)
Independent study through readings, reports, research projects, and conferences.
POL SCI 6440 Proseminar in Public Administration (3)
Same as P P ADM 6400. 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, intergovernmental relations, public-private interaction, implementation processes, bureaucratic expertise, the legal environment of public policy administration, and public service and merit issues.

POL SCI 6442 The Policy Process (3)
Prerequisite: Graduate standing. The course will require a major research project using federal documents and other primary sources of information about the United States 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)

Same as P P ADM 6430 GERON 6443, SOC 6443, and SOC WK 6443. Prerequisite: Graduate standing or consent of instructor. (MSW students will normally take the social policy foundation course before enrolling in this course). 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)
Same as P P ADM 6444, GERON 6444 and SOC 6444. Prerequisite: 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)
Independent study through readings, reports, research projects, and conferences.
POL SCI 6446 Selected Topics in Health Care Policy (3)
Same as P P AD 6460 and SOC 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.
POL SCI 6448 Political Economy and Public Policy (3)
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 policy-making 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)
Same as SOC WK 6449 and P P ADM 6490. Prerequisite: 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)
Classification and topology 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)
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)

Same as BIOL 6250. Prerequisites: Graduate standing in Political Science or Biology 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.

POL SCI 6455 Directed Readings and Research in Comparative Politics (1-10)
Independent study through readings, reports, research projects, and conferences.
POL SCI 6465 Directed Readings and Research in Political Theory (1-10)
Independent study through readings, reports, research projects, and conferences.
POL SCI 6470 Proseminar in Urban Politics (3)
Examination of the relationships among 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)
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)
Independent study through readings, reports, and conferences.
POL SCI 6480 Proseminar in International Relations (3)
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)
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)
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)
Independent study through readings, reports, research projects, and conferences.

POL SCI 6488 Studies in International Relations (1-6)
Prerequisite: Graduate standing. Selected topics in international studies. May be repeated for credit provided the topic of the course is different each time.

POL SCI 6490 Strategic and Program Planning for Nonprofit Organizations (3)
Same as P P ADM 6550 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, 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)
Arranged.
POL SCI 6495 Internship (1-6)
Independent study involving work with an appropriate public or private agency.
POL SCI 6499 Directed Dissertation Proposal Research (3)
Prerequisite: 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)
Arranged.

## Pre-Professional Programs

## UMSL Home

Students at the University of Missouri-St. Louis may develop pre-professional study programs from the university's academic offerings in dentistry, law, medicine, optometry, pharmacy, or veterinary sciences. With early and careful advising, students may develop an appropriate program to prepare for the intended professional study.

Students should seek pre-professional faculty advisers 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.

## Pre-Law

All students must have a major. Pre-Law is not a major - it is an emphasis (though not posted on the student's transcript). Selecting a major can be done when applying or in person in 303 Lucas Hall.
Declaring the Pre-Law Emphasis: A student may only declare the pre-law emphasis during the freshman, sophomore or first semester junior year. Declaring the pre-law emphasis can only be done at the beginning of the respective semester of the academic calendar year.

Standards for Declaring the Pre-Law Emphasis as a Freshman: The student must have a minimum 2.50 cumulative high school grade point average in the core courses if declaring the pre-law emphasis as a first semester freshman. If a second semester freshman, the student must have a minimum 2.70 cumulative grade point average at the university/community college level.
The student must attend the pre-law orientation session in the Fall semester of the freshman year. If declaring the pre-law emphasis as a second semester freshman, the student must attend the pre-law orientation session in the Fall semester of the following academic calendar year.
Standards for Declaring the Pre-Law Emphasis as a Sophomore or first semester Junior: If a sophomore, the student must have a minimum 2.80 cumulative grade point average to declare the pre-law emphasis. If a junior, the student must have a minimum 2.90 cumulative grade point average to declare the pre-law emphasis.

Attendance at Pre-Law Orientation Session - Requirement: If the student declares the pre-law emphasis in the Fall semester of the academic calendar year, the student must attend the pre-law orientation session that same Fall semester. If the student declares the pre-law emphasis in the Winter/Spring semester, the student must attend the pre-law orientation session the Fall semester of the next academic calendar year. Each student is responsible for recording his/her attendance at the pre-law orientation session.

Student Standards of Progression in the Pre-Law Emphasis: It is critically important that the student maintain a high undergraduate GPA, for example, a 3.6 or higher for a high-ranking law school, or at least a 2.95 or higher for a Tier 4 school. (See www.prelawhandbook.com/grade_point_average.)

## Course Requirements:

Students having a pre-law emphasis must successfully complete, by earning a grade of C- or higher, the following courses by the end of their sophomore year to remain in the pre-law emphasis track:

1. POL SCI 1100: Introduction to American Politics
2. POL SCI 1200: Foundations of Law
3. PHIL 1160: Logic and Language

Students having a pre-law emphasis must successfully complete, by earning a grade of C- or higher, the following courses by the end of their junior year to remain in the pre-law emphasis track:

1. POL SCI 3200: Constitutional Law
2. CRI MIN 1120: Criminal Law

For more information, please be referred to the pre-law advisor by contacting the College of Arts and Sciences in 303 Lucas Hall, 314-516-5501.

Pre-Health Sciences

Students wishing to enter medical, dental, optometry, or veterinary medicine schools should pursue B.A. or B.S. degrees with majors in the disciplines of their choice, but should take whatever additional courses may be necessary as prerequisites for admission to the professional school.

A baccalaureate degree is generally not required before entering pharmacy school. (See Pre-Pharmacy section below).

Since admission requirements vary, students should consult the catalogs of the schools 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
American Dental Education Association Official Guide to Dental Schools
Phone: 1-202-289-7201; Website: www.adea.org
Schools and Colleges of Optometry Admission Requirements
Phone: 1-301-231-5944; Website: www.opted.org (see Pre-Optometry section below)
Pharmacy School Admission Requirements
Phone: 1-703-739-2330; Website: www.aacp.org (See Pre-Pharmacy section below)
Veterinary Medical School Admission Requirements in the United States and Canada
Phone: 1-202-371-9195; Website: www.aavmc.org/
** A copy of the MSAR is also available at the reference desk of the Thomas J efferson Library.

## Suggested Courses (Pre-Med, Pre-Dental, Pre-Vet)

Many medical schools recommend the following undergraduate courses:
Biology: BIOL 1831, Introductory Biology: From Molecules to Organisms; BIOL 1821, Introductory Biology: Organisms and the Environment; BIOL 2012, Genetics; and additional courses in molecular and/or cell biology.

Chemistry: CHEM 1111, Introductory Chemistry I; CHEM 1121, Introductory Chemistry II; CHEM 2612, Organic Chemistry I; CHEM 2622, Organic Chemistry II; CHEM 2633, Organic Chemistry Lab; and additional courses in organic chemistry and quantitative analysis. (Biochemistry is also recommended.)

Mathematics: Students should take courses at least through calculus, as appropriate for the major degree: MATH 1100, Basic Calculus or MATH 1800, Analytical Geometry \& Calculus I for biology majors; through MATH 2000, Analytical Geometry and Calculus III for chemistry majors; and through MATH 2020, Introduction to Differential Equations for physics majors. Consult with the Pre-Health Sciences advisor to determine the appropriate course(s).

Physics: 8-10 hours (as appropriate for the degree chosen). PHYSICS 1011 \& 1012, Basic Physics (for biology majors), OR PHYSICS 2111, Physics: Mechanics and Heat and PHYSICS 2112, Physics: Electricity, Magnetism and Optics (for chemistry or physics majors). Consult with the Pre-Health and Sciences advisor.

Successful completion of these recommended courses also helps students prepare for required standardized exams.

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 and BIOL 1821, I ntroductory Biology I and II as well as CHEM 1111 and 1112, I ntroductory Chemistry I and II should be taken during the freshman year.

Students also should take the required national standardized examination before or during the 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 (by a factor of two in most cases). Students, therefore, are encouraged to have alternative plans should they not gain entrance. Nursing, laboratory technology, and other allied health science areas may be considered as alternative fields.

For more information, testing dates, or pre-health science advising, contact the pre-health professions adviser through the College of Arts and Sciences, 303 Lucas Hall, 314-516-5501.

## 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 PreOptometry 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 preoptometry 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 Laclede 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 Laclede Honors College program. For more information about the Scholars Program, contact the Pierre Laclede 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 314-5165311.

In some cases, students are admitted to the College of Optometry program prior to completing the requirements for their baccalaureate degree.

Note: Math 1800, 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.

## Pre-Pharmacy

In general, a pharmacy program may consist of 1-3 years of pre-professional study followed by 4-5 years in a professional program (normally, six years total). Some institutions, however, offer the entire program at the pharmacy college or school. Since entrance requirements vary, students should consult the catalog and/ or web site of the college or school to which they intend to apply. Missouri has two pharmacy schools: St. Louis College of Pharmacy, a private institution, and University of Missouri-Kansas City School of Pharmacy. Beginning in Fall 2005, the metropolitan St. Louis area also includes Southern Illinois University Edwardsville School of Pharmacy. Internet links for these and other pharmacy programs in the United States, Canada and abroad can be found at the web site for the American Association of Pharmacy Colleges,
www.aacp.org.
Before taking any courses for pre-pharmacy, UMSL students should contact the College of Arts and Sciences, 303 Lucas Hall, for pre-pharmacy information. It is important that students take the correct courses for the pharmacy programs they intend to pursue. Generally, science admission requirements may include some or all of the courses listed below (and possibly other courses):

BIOL 1831, Introductory Biology: From Molecules to Organisms
BIOL 1821, Introductory Biology: Organisms and the Environment
BIOL 1131, Human Physiology and Anatomy I
BIOL 1141, Human Physiology and Anatomy II
CHEM 1111, Introductory to Chemistry I
CHEM 1121, Introductory to Chemistry II
CHEM 2612, Organic Chemistry I
CHEM 2622, Organic Chemistry II
CHEM 2633, Organic chemistry Laboratory
MATH 1800, Analytical Geometry and Calculus I
PHYSICS 1011, Basic Physics

PHYSICS 1012, Basic Physics
Usually, pre-pharmacy requirements also include courses in English composition, humanities, social and behavioral sciences. The specific pharmacy school or college specifies these requirements. In addition, many pharmacy institutions require applicants to take the Pharmacy College Admission Test (PCAT). Detailed information about the PCAT is available online at www.pcatweb.info. For additional information about application deadlines and procedures, GPA requirements, and letters of recommendation, students should consult the catalogs and/or web sites for the programs to which they intend to apply.

Pre-Pharmacy advising and information is available through the Office of Undergraduate Student Affairs in the College of Arts and Sciences, 303 Lucas Hall, 314-516-5501.

# Department of Psychology 

Undergraduate Programs | Graduate Programs | Course Descriptions

## UMSL Home

Department of Psychology Home Page

## Faculty

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Steven E. Bruce, Associate Professor, Director, Center for Trauma Recovery
Ph.D., Virginia Commonwealth University
J erry H. Dunn\#, Associate Clinical Professor, Director, Children’s Advocacy Center
Ph.D., University of Missouri-St. Louis
Tara Galovski, Assistant Professor
Ph.D., University of Albany-State University of New York
Michael G. Griffin, Associate Professor, Associate Chairperson
Ph.D., University of Missouri-St. Louis
Dyan W. Harper, Teaching Professor
Ph.D., Northern Illinois University
Robert N. Harris, Clinical Professor
Ph.D., University of Kansas
Brenda A. Kirchhoff, Assistant Professor
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Matthew Kliethermes\#, Associate Clinical Professor
Ph.D., St. Louis University
Therese Macan, Associate Professor, Director, Doctoral Program in Industrial/ Organizational Psychology Ph.D., Rice University
John P. Meriac, Assistant Professor
Ph.D., University of Tennessee-Knoxville
Stephanie Merritt, Assistant Professor
Ph.D., Michigan State University
Miles L. Patterson, Professor
Ph.D., Northwestern University
Robert H. Paul, Professor, Director, Doctoral Program in Behavioral Neuroscience
Ph.D., University of Oklahoma Health Sciences Center
Zoë Peterson, Assistant Professor
Ph.D., University of Kansas
Megan Schacht\# , Assistant Clinical Professor
Ph.D., University of Missouri-St. Louis
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Ph.D., University of Western Ontario
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Ph.D., Vanderbilt University

James A. Breaugh + , Professor
Ph.D., Ohio State University
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Ph.D., The State University of New York, Buffalo
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Ph.D., University of Missouri - Saint Louis
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Ph.D., University of Missouri-St. Louis
Gualtiero Piccinini<, Associate Professor
Ph.D., University of Pittsburgh
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Ph.D., Washington University
Carla Yuede, Postdoctoral Fellow in Psychiatry at Washington University Medical School
Ph.D., University of Missouri-St. Louis
Lee Konczak, Adjunct Assistant Professor
Ph.D., University of Missouri-St. Louis
Gary A. Morse, Adjunct Professor
Ph.D., University of Missouri-St. Louis
John W. Rohrbaugh, Adjunct Associate Professor
Ph.D., University of Illinois-Urbana Champaign
Sandra K. Seigel, Adjunct Assistant Professor
Ph.D., Saint Louis University
David E. Smith, Adjunct Associate Professor
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Robert J. Calsyn, Professor Emeritus
Ph.D., Northwestern University
Edmund S. Howe, Professor Emeritus
Ph.D., University of London
Samuel J. Marwit, Professor Emeritus
Ph.D., The State University of New York, Buffalo
Jayne E. Stake, Professor Emerita
Ph.D., Arizona State University
Dominic J. Zerbolio, J r., Professor Emeritus
Ph.D., Michigan State University
\# Primary appointment in Children's Advocacy Center

+ Primary appointment in the College of Business Administration
^ Primary appointment in the College of Optometry
< Primary appointment in the Department of Philosophy
* Primary appointment in the School of Social Work; Director of Gerontology


## General I nformation

## 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 are posted to the Psychology Academic Advising MyGateway site or can be obtained by e-mailing: 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 social work and counseling, or the liberal arts background necessary for entry level positions in many fields such as business, communication, and some human service and health care positions. 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). To function specifically as a psychologist, a graduate degree is required. Students with such an interest should work with Psychology Academic Advisors to plan for this additional training early. Much of this preparation must start during the first half of students' undergraduate studies. For additional information, visit the American Psychological Association website at 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 the doctoral students in the psychology program as well as providing psychological assessment and treatment services for citizens of the region.

## Undergraduate Programs: Overview

## Bachelor of Arts Degree.

The Psychology department offers a broad-based curricular plan leading to the Bachelor of Arts (BA) degree in Psychology.

## Minor in Psychology

The department offers a minor in Psychology to students who have a special interest in this field but wish to major in another discipline.

## 2+3 Bachelor of Arts in Psychology and Master of Science in Gerontology

This is an accelerated program which allows students to receive a B.A. degree in Psychology and an M.S. in Gerontology after completing 138 credit hours in a carefully prescribed program. A full description of program requirements and procedures is available from the Gerontology Program office.

## Undergraduate 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.

## 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.

## Graduate Programs: Overview

## Master's Degrees

The department offers a terminal Master of Arts in Psychology, with a specialization in either Industrial/Organizational Psychology or Behavioral Neuroscience.

## Doctoral Degrees

The department offers three options within its Ph.D. Program: Clinical Psychology; Behavioral Neuroscience and Industrial/Organizational Psychology.

## Graduate Certificate in Trauma Studies

This is an 18 credit hour graduate certificate program. Students completing this certificate must be admitted to a program of graduate study in the UMSL Department of Psychology.

## Clinical Psychology Respecialization-Advanced Graduate Certificate Program

This program is designed for individuals who already have a doctoral in Psychology who wish to receive specialty training in Clinical Psychology.

## Undergraduate Programs in Depth

## General Education Requirements

Majors must satisfy the university and college General Education curricular requirements. 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)

- 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)

- 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)

- 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)

- PSYCH 1003, and three hours of BIOL chosen from either BIOL 1012, or BIOL 1102, or BIOL 1811 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)

- 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)

- 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)

- 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 courses totaling a minimum of 12 credit hours in Psychology (in addition to the 2 credits earned in 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 3295 or 3390). 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:

Students must complete at least 12 hours from the following group:
Criminology and Criminal Justice
CRI MI N 1120, Criminal Law
CRI MI N 4300, Communities and Crime
CRI MI N 4350, Victimology
Psychology
PSYCH 2232, Psychology of Trauma
PSYCH 3295, Selected Projects in Field Placement: Helping Victims of Crime (for three credits only toward certificate).
PSYCH 3390, Directed Studies, if trauma-related topic (for three credits only toward certificate). Please seek approval of the Coordinator of the Trauma Studies Certificate in advance.

Social Work
SOC WK 3100, Introduction to Interventive Strategies for Social Work Practice
SOC WK 4601, Abused and Neglected Children
SOC WK 4602, Child Welfare Practicum Seminar
Sociology
SOC 3250, Sociology of Victimization
Students may count up to 6 hours from the following group toward the trauma studies certificate:
Criminology and Criminal Justice
CRIMIN 2230, Crime Prevention
CRI MI N 2240, Policing
CRI MI N 4340, Race, Crime, and Justice (same as SOC 4340)
Political Science
POL SCI 2400, Public Administration
POL SCI 2420, Introduction to Public Policy
POL SCI 4940, Leadership and Management in Nonprofit Organizations (same as SOC WK 4940 and SOC 4940)

Psychology
PSYCH 2160, Social Psychology (same as SOC 2160)
PSYCH 2230, Psychology of Gender
PSYCH 2245, Abnormal Psychology
Social Work
SOC WK 4630, Women's Social Issues
SOC WK 4940, Leadership and Management in Nonprofit Organizations (same as POL SCI 4940 and SOC 4940)

Sociology

SOC 2102, Introduction to Women's and Gender Studies
SOC 2160, Social Psychology (same as PSYCH 2160)
SOC 3268, Sociology of Conflict
SOC 4340, Race, Crime, and Justice (same as CRIMIN 4340)
SOC 4940, Leadership and Management in Nonprofit Organizations (same as POL SCI 4940 and SOC WK 4940)

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.

## Goal 1. 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, PSYCH 4349, and PSYCH 4356.

## 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, PSYCH 2245, PSYCH 2270, PSYCH 2280, PSYCH 3340, PSYCH 3346, PSYCH 4305, PSYCH 4306, and PSYCH 4376.

Goal 5. Application of Psychology to Social and Organizational I ssues
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, PSYCH 2222, PSYCH 2230, PSYCH 3318, PSYCH 4310, and PSYCH 4311.

## 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. I nformation 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 in Depth

## 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--J anuary 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 devotes most of its graduate level training to its three doctoral programs. However, the department does offer a program of studies leading to the Master of Arts degree with a specialization in either Industrial/Organizational Psychology or Behavioral Neuroscience. These positions are very limited in number. Course work depends on student demand and course availability. 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.

There is no thesis or language requirement. Part-time or full-time enrollment is permissible. The M.A. degree is a terminal degree and is separate from the Ph.D. program in 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. Before applying for admission to the Master's Program, interested applicants are encouraged to discuss their interest with either the Director of the Behavioral Neuroscience program or the Director of the Industrial/Organizational Psychology program.

## 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: PSYCH 5465, PSYCH 5468, PSYCH 6466, PSYCH 7403, PSYCH 7405, PSYCH 7412

Students will be prepared in multiple approaches to assessment and treatment that are theory-based and research-supported.

The following courses address this goal directly: PSYCH 7404, PSYCH 7406, PSYCH 7430, PSYCH 7431, PSYCH 7434, PSYCH 7439, PSYCH 7450, PSYCH 7451.

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, PSYCH 7422, PSYCH 7474, PSYCH 7485, PSYCH 7486, PSYCH 7487, PSYCH 7488, PSYCH 7492.

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 :

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.

## I ndustrial/ 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 I ndustrial/ 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 researchsupported 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.

## Course Descriptions

## PSYCH 1000 Choosing a Career in Psychology (1)

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 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) [SS]

[Meets General Education Social and Behavioral Sciences requirement] 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) [SS]

[Meets General Education Social and Behavioral Sciences requirement] Prerequisite: PSYCH 1003. A survey course designed for non-major. 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.

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 2170 Aging in America: Concepts and Controversies (3)

Same as GERON 2170, ID 2170, SOC WK 2170, and SOC 2170. This course examines the major theoretical and service issues connected to the study of older adults and their families, using multidisciplinary perspectives. Students are provided with an introduction to the field of aging through an examination of current social issues and controversies. This course emphasizes student involvement through class discussion, and is appropriate for students in the arts and sciences, business, communication, education, and nursing.

## PSYCH 2200 Drugs and Behavior (3)

Prerequisites: 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)

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, sampling fundamentals, significance testing and effect size, ttest, 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) [V, SS]

Prerequisite: PSYCH 1003. [Meets General Education Social and Behavioral Sciences and Valuing requirements] 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 intrapersonal 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)

Prerequisites: PSYCH 1003 and 3 hours of BIOL chosen from either BIOL 1012, or BIOL 1102, or BIOL 1811. Students with career goals that include graduate study in Psychology are urged to complete the BIOL 1811 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)

Prerequisites: 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)

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) [V, SS]

[Meets General Education Social and Behavioral Sciences and Valuing requirements] 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)

Same as GS 2232. Prerequisite: 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)

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 \& Adolescence (3)
Prerequisite: 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)
Same as GERON 4280. 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) [V, SS]
[Meets General Education Social and Behavioral Sciences and Valuing Requirements] Same as GERON 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.

PSYCH 2285 American Culture \& Minority Mental Health (3) [V, SS]
[Meets General Education Social and Behavioral Sciences and Valuing Requirements] Prerequisite: 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 drawings from clinical and social Psychology will be utilized.

## PSYCH 3205 Evolutionary Psychology (3)

Prerequisite: 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)
Prerequisite: 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)

Prerequisites: PSYCH 2270 (majors) or PSYCH 1268. 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)

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)

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.

Prerequisites: PSYCH 1003, PSYCH 2270, and six additional hours of Psychology, or consent of instructor. This course addresses 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)

Prerequisites: PSYCH 1003; PSYCH 2216 or 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 (1-5)

Prerequisite: Special consent of instructor. This course involves laboratory research and/or directed readings as determined by the instructor. Enrollment in this course is by instructor invitation and special consent only. Further information on 3390 courses can be obtained from Psychology Academic Advising at psy_advising@umsl.edu.

## PSYCH 3400 Conceptual and Historical Foundations of Psychology (3)

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)

Prerequisite: PSYCH 1003 and three additional hours of Psychology. Health psychology involves the disciplines 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)

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 cross-cultural 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 IIIness (3)

Prerequisites: PSYCH 1003; PSYCH 2211 or PSYCH 2200; and 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)

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, metacognition, conceptual development, children's naïve theories, schooling, and various definitions and measures of intelligence.

## PSYCH 4310 Motivation Theory (3)

Prerequisites: Junior standing and twelve hours of Psychology, or consent of instructor. Survey of current theoretical material in the area of motivation.

## PSYCH 4311 Psychology of Nonverbal Behavior (3)

Prerequisite: PSYCH 2160 or SOC 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 4316 Developmental Psychology: Social Development of Children and Adolescents (3) 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)

Prerequisites: Nine hours of Psychology or Biology, including at least one of the following: either 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)

Prerequisites: 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)

Prerequisites: 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)
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)

Prerequisite: 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)

Same as GERON 4376 and SOC WK 4376. (MSW students normally take all foundation courses prior to enrolling in this course.) Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor. 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)

Prerequisites: Twelve hours of psychology and consent of instructor. A seminar of selected issues and methods in psychology. May be repeated once for credit.

PSYCH 4999 Integrated Psychology (2)
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 \& 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.

## Note: Courses above the 4000-level are designated as Graduate School Curriculum.

## PSYCH 5001 Neuropsychological Assessment (3)

Prerequisite: 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 5400 Seminar: Special Topics in Behavioral Neuroscience (1)
Prerequisite: Admission to the graduate program in behavioral neuroscience or consent of 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)

Prerequisite: 12 units of graduate-level psychology courses and consent of instructor. 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)

Prerequisite: Graduate standing or permission of instructor. Behavioral neuroscience is the study of the relation of the brain to behavior. This 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)

Prerequisite: 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)

Same as SOC WK 5610 and GERON 5610. Prerequisite: Admission to Clinical Psychology program or permission of the instructor. A critical examination of the clinical-experimental literature on psychopathology. Etiologies of cognitive/affective functions and 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)

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)

Same as SOC WK 5612 and GERON 5612. Prerequisites: GERON 5610 and GERON 5611 or SOC WK 5610 and 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.

## PSYCH 6441 Aging and Health Behavior (3)

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)

Prerequisite: 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)

Prerequisite: 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)
Prerequisite: Admission to Clinical Psychology program or permission of the instructor. A critical examination of the clinical-experimental literature on psychopathology. Etiologies of cognitive/affective functions and dysfunctions are explored, and implications for therapeutic intervention are considered.

PSYCH 7404 I ntroduction to Clinical Assessment I (4)
Prerequisite: 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)
Prerequisite: Admission to Clinical Psychology program or consent of the instructor. A comprehensive overview
of the history of psychology with an emphasis on the systems of thought that have shaped contemporary psychological theory and research.

## PSYCH 7406 Introduction to Clinical Assessment II (4)

Prerequisite: 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)
Same as GS 6410. Prerequisite: 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)
Prerequisite: 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)

Prerequisite: 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)
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, $\mathrm{z}, \mathrm{t}, \mathrm{F}$, 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)

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)
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)

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 I ntroduction to Clinical Skills (1)
Prerequisite: Admission to doctoral program in clinical psychology. An introduction to processes and procedures involved in psychotherapy.

PSYCH 7431 Clinical Supervision (1-3)
Prerequisite: Admission to Clinical Psychology program. Supervised experience in clinical practice. Maybe repeated six times for credit.

PSYCH 7432 Ethics and Professional Issues (3)
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)

Prerequisite: 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 Seminar: I ntroduction to Clinical Interventions (3)

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)

Prerequisite: PSYCH 7431. Supervision experience in clinical practice at all graduate year levels during the summer months. Can be repeated for credit.

PSYCH 7442 Seminar: Cognitive and Behavior Interventions (3)
Prerequisite: PSYCH 7434. This course focuses on the theory and practice of cognitive-behavioral interventions
in the field of clinical psychology.
PSYCH 7445 Seminar: Special Topics in Clinical Psychology (1)
Prerequisites: Admission to doctoral program in clinical psychology or consent of instructor. A seminar of selected issues and methods in clinical psychology. May be repeated for a total of 3 credit hours, provided the subject matter is different.

## PSYCH 7447 Trauma and Recovery (3)

Prerequisite: 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 in Applied Psychology (3)

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.

PSYCH 7450 Clinical Internship I (1)
Prerequisite: Consent of adviser. Formal, one year, full-time internship providing student with in-depth supervised training within a site approved by the American Psychological Association. (1 credit taken in both the fall and spring semesters of the internship year.)

## PSYCH 7451 Clinical I nternship II (1)

Prerequisites: PSYCH 7450 and consent of adviser. Formal, one year, full-time internship providing student with in-depth supervised training within a site approved by the American Psychological Association. (1 credit taken in the final summer of the internship.)

## PSYCH 7454 Seminar: Personnel Psychology (3)

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)
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)
A seminar of selected issues and methods in personnel psychology.
PSYCH 7458 Seminar: Special Topics in Organizational Psychology (3)
A seminar of selected issues and methods in organizational psychology.
PSYCH 7459 Practicum in Industrial/ Organizational Psychology (1-4)
Supervised experience in personnel or human resource management.

## PSYCH 7461 Summer Research in I/ O Psychology (1)

Prerequisite: 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 7465 Applied Issues in Organizational Psychology (3)

Prerequisite: PSYCH 7455 or consent of instructor. This 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)
Prerequisite: Only open 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 \& Ethics (3)
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.

A seminar of selected issues and methods in psychology.
PSYCH 7474 Clinical Research in Applied Settings (3)
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)

Prerequisite: 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 interventions with Children and Families (3)
Prerequisites: 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)
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)
Independent literature review of a topic in industrial/ organizational psychology.

## PSYCH 7483 Directed Research (1-10)

PSYCH 7484 Directed Readings (1-10)
PSYCH 7485 Research Team I (2)
Prerequisite: Admittance to doctoral program in Clinical Psychology. Group supervision of beginning research leading to the Independent Research Project.

PSYCH 7486 Research Team II (2)
Prerequisite: 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 Independent Research Project (1-6)
Prerequisite: Admission to the doctoral program in Clinical Psychology. Supervised original research project of a clinically-related topic.

PSYCH 7488 Specialty Examination Research (1-6)
Prerequisites: Admission to the doctoral program in Clinical Psychology. Supervised original review and analysis of a clinically-related topic.

PSYCH 7491 M.A. Thesis Research (1-10)
PSYCH 7492 Ph.D. Thesis Research (1-10)

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## Faculty

Nancy Shields, Associate Professor, Director
Ph.D., Southern Illinois University-Carbondale
George J. McCall, Professor Emeritus
Ph.D., Harvard University
Harry H. Bash, Associate Professor Emeritus
Ph.D., University of Pennsylvania
Sarah L. Boggs, Associate Professor Emerita
Ph.D., Washington University
Teresa J. Guess, Associate Professor Emerita
Ph.D., University of Missouri-Columbia
Chikako Usui, Associate Professor
Ph.D., Stanford University
Robert Keel, Teaching Professor
M.A., Washington University

Peter Marina, Visiting Assistant Professor
Ph.D., New School for Social Research
The faculty prides itself on its commitment to high standards of teaching and sound scholarly research. Systematic course evaluations by students each semester are taken seriously, and individual faculty have been singled out as nominees and recipients of university Excellence in Teaching awards. The ongoing scholarly research of the faculty is reflected in the department's upper-level courses, as well as in the numerous publications in journals and books or presentations at national and international meetings. Information on current academic activities of the faculty is posted on the departmental web page

## General Information

## Degrees and Areas of Concentration

The sociology department offers courses leading to the B.A. in sociology and the B.S. in sociology; in cooperation with the College of Education, the B.A. in sociology with teacher certification; in cooperation with the College of Business Administration, the B.A. in sociology with a business option; and cooperative minor or certificate programs in American studies, black studies, legal studies, urban studies, religious studies, women's and gender studies, and international studies.

Students completing the B.A. or B.S. degree in sociology are well-prepared for graduate study in sociology or careers in industry, health and social services, and urban, intergroup, political, or community issues.

In addition to a balanced program of basic undergraduate to advanced graduate courses, the department provides a range of opportunities for students to develop specialized research methods. Seminars and internship placements are offered in support of this goal and are typically designed around the ongoing research interests of department faculty. The department provides students with opportunities for intensive direction and guidance from faculty. Students and faculty working in particular subject areas consult freely with members working in other areas. Research interests of sociology faculty extend beyond the department into a wide variety of joint projects with faculty in other departments and programs, including criminology and criminal justice, political science, trauma studies, women's and gender studies, gerontology, public policy research centers, and the Center for International Studies.

## Undergraduate Studies

## General Education Requirements

Students must satisfy the university and college general education requirements. 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. Not more than 12-15 hours of community college transfer credit may be applied toward the combined minimum of required credit hours for the B.A. ( 30 credit hours) or B.S. ( 36 credit hours) major. No course in which a grade below a C-is received will count toward satisfying the core requirement.

## Satisfactory/ Unsatisfactory Restrictions

Sociology majors may not take courses counting toward their major requirements on a satisfactory/unsatisfactory basis.

## Learning Goals and Outcomes

The sociology major should study, review, and demonstrate understanding of:

1. The discipline of sociology and its role in contributing to our understanding of society, such that the student will be able to:

- describe how sociology differs from and is similar to other social sciences, and give examples of these differences;
- describe how sociology contributes to a social scientific understanding of social life; and
- apply the sociological imagination, sociological principles and concepts to her/his own life.

Courses: Introduction to Sociology; Social Psychology; Urban Sociology; Social Problems.
2. The role of theory in sociology, such that the student will be able to:

- define theory and describe its role in building sociological knowledge;
- compare and contrast basic theoretical orientations;
- show how theories reflect the historical context of times and cultures in which they were developed; and
- describe and apply some basic theories or theoretical orientations in at least one area of society.

Courses: Sociological Theory; all 4000 level courses.
3. The role of evidence and qualitative and quantitative methods in sociology, such that the student will be able to:

- identify basic methodological approaches and describe the general role of methods in building sociological knowledge;
- compare and contrast the basic methodological approaches for gathering data;
- design a research study in an area of choice and explain why various decisions were made; and
- critically assess a published research report.

Courses: Statistics; Methods; Qualitative Methods; Survey Research Practicum.
4. The role of data analysis in sociology, such that the student will be able to:

- use the necessary technical and analytic skills to retrieve relevant information and data from the internet;
- use computers appropriately for data analysis;
- accurately convey data findings in writing; and
- describe and apply the principles of ethical practice as a sociologist.

Courses: Statistics; Methods; Qualitative Methods; Social Psychology; all 4000 level courses.
5. Basic concepts in sociology and their fundamental theoretical interrelations, such that the student will be able to:

- define, give examples, and demonstrate the relevance of the following: culture; social change; socialization; stratification; social structure; institutions; and differentiations by race/ethnicity, gender, age, and class.

Courses: Introduction to Sociology; all 4000 level courses.
6. How culture and social structure operate, such that the student will be able to:

- demonstrate the interdependencies of social institutions, and the reflexive nature of interaction between individuals and groups within these institutional structures;
- demonstrate how social change affects social structures and individuals;
- demonstrate how culture and social structure vary across time and place, and the effect of such variations; and
- identify examples of specific policy implications based upon social structural analysis.

Courses: Introduction to Sociology; Sociological Theory; Social Psychology; Sociology of the Family; Sociology of Health; Sociology of Deviant Behavior; Alcohol, Drugs, and Society; Social Problems; Gerontology.
7. Reciprocal relationships between individuals and society, such that the student will be able to:

- provide a sociological analysis of the development of the self;
- demonstrate how societal and structural factors influence individual behavior and the development of the self;
- demonstrate how social interaction influences society and social structure; and
- distinguish sociological approaches to analyzing the self from psychological, economic, and other approaches.

Courses: Introduction to Sociology; Social Psychology; Sociological Theory; Gerontology.
8. The macro/micro distinction, such that the student will be able to:

- compare and contrast theories at one level with those at another;
- summarize research documenting connections between the two; and
- identify a related research question that could be pursued to more fully understand the connections between the two.

Courses: Introduction to Sociology; Social Problems; Sociological Theory; Sociology of the Family; Urban Sociology; Gerontology.
9. At least one specialty area within sociology, such that the student will be able to:

- summarize basic questions and issues in the specialty area;
- compare and contrast basic theoretical orientations in the specialty area; and
- summarize current research in the specialty area.

Specialty area Inequality Courses: Sociology of Wealth and Poverty; Sociology of Minority Groups; Urban Sociology; Power, Ideology and Social Movements.

Specialty area Social Control Courses: Urban Sociology; Sociology of Conflict; Sociology of Deviant Behavior; Alcohol, Drugs and Society; Criminology and Criminal Justice cross-listed courses. A faculty advisor can approve other areas and courses.
10. The internal diversity of American society and its place in a global context, such that the student will be able to:

- describe the significance of global variations by race, class, gender, and age; and
- know how to appropriately generalize or resist generalizations across groups.

Courses: Introduction to Sociology; Gender Roles; Sociology of Wealth and Poverty; Urban Sociology; Social Problems; Gerontology.
11. To think critically, such that the student will be able to:

- demonstrate an ability to move from recall analysis and application to synthesis and evaluation;
- identify underlying assumptions in particular theoretical orientations or arguments;
- identify underlying assumptions in particular methodological approaches to an issue;
- describe how patterns of thought and knowledge are directly influenced by social structures; and
- present opposing viewpoints and alternative hypotheses on various issues.

Courses: Sociological Theory; Research Methods; all 4000 level courses.

## Degree Requirements

## Bachelor of Arts in Sociology

In addition to specific baccalaureate degree requirements of the College of Arts and Sciences, candidates must complete 30 hours of sociology course credit including the following required courses:

## Core Courses ( 12 hours)

SOC 1010, Introduction to Sociology
SOC 3210, Sociological Theory
SOC 3220, Sociological Statistics, or
MATH 1310, Elementary Statistical Methods, or
MATH 1102, Finite Mathematics I, or
MATH 1105, Basic Probability and Statistics
SOC 3230, Research Methods
Synthesis - Choose one ( 3 hours)
SOC 4040, Survey Research Practicum

## SOC 4365, Sociological Writing

Note: The core requirements should be completed as early as possible, preferably by the end of the junior year. Only 45 hours of sociology can be applied to the 120 hour total required for a degree from the University of Missouri-St. Louis.

For the B.A. in sociology candidates are required to take at least 15 additional hours of sociology courses, with at least six hours at the 4000 level (no more than three hours of either SOC 4350, Special Study or SOC 4385, Internship in Sociology may be applied to this 4000 level requirement). No more than three hours in sociology below the 2000 level can count towards this 15 -hour requirement. Applied training through one or more research courses may be used as part of the requirement for the major.

## Bachelor of Science in Sociology

For the B.S. in Sociology, candidates must complete 36 hours of sociology course credit, including the following required courses:

Core Courses ( 12 hours)
SOC 1010, Introduction to Sociology
SOC 3210, Sociological Theory
SOC 3220, Sociological Statistics, (or MATH 1310, Elementary Statistical Methods, or
MATH 1102, Finite Mathematics I, or MATH 1105, Basic Probability and Statistics)
SOC 3230, Research Methods
Synthesis - Choose one ( 3 hours)
SOC 4040, Survey Research Practicum
SOC 4365, Sociological Writing
Candidates are also required to complete 21 hours of sociology courses, including a minimum of 9 hours at the 4000 or 5000 level (no more than three hours of either SOC 4350 Special Study or SOC 4385, Internship in Sociology may be applied to the 4000 or 5000 level requirement). No more than three hours in sociology below the 2000 level can count toward this 21 -hour requirement.

Related Area Requirements:
Candidates for the B.S. in sociology also must complete five courses from at least four of the following nine areas: computer science, economics, mathematics, philosophy, political science, probability and statistics, psychology, public policy administration, and international studies. Specific course selections must be approved by a faculty advisor.

Combined Degree: Bachelor of Science in Civil Engineering and Bachelor of Science in Sociology Students pursuing the combined degree are simultaneously enrolled in the College of Arts and Sciences and the J oint Undergraduate Engineering Program. They have an engineering faculty adviser as well as a faculty adviser in Sociology.

A program of 159 semester hours is required for the B.S. in civil engineering and the B.S. in sociology. Earned alone, the B.S. in engineering requires 137 semester hours. Because of the overlap in required courses for the two curricula, the combined degree program requires only 22 additional semester hours.

For additional information, see the section in this Bulletin labeled UMSL/Washington University J oint Undergraduate Engineering Program or contact:

Associate Dean of the J oint Undergraduate Engineering Program,
228 Benton Hall,
University of Missouri-St. Louis,
One University Blvd.,
St. Louis, MO 63121.
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.)

## B.A. or B.S. in Sociology with an Interest in Business

The following courses are suggested for students seeking careers in sales, market research, and so forth. In addition to the B.A. or B.S. in sociology requirements, the following core courses are suggested:

ECON 1001, Principles of Microeconomics
BUS AD 2400, Fundamentals of Financial Accounting SOC 4646, Demographic Techniques
Students may then choose to complete one of the following three sets of courses:

[^0]MKTG 3740, Marketing I ntelligence
MKTG 3760, Industrial Marketing

## 2) Financial Management <br> FI NANCE 3500, Financial Management <br> FI NANCE 3501, Financial Policies <br> FI NANCE 3520, Investments

3) Accounting

ACCTNG 2410, Managerial Accounting
ACCTNG 3401, Intermediate Accounting I
ACCTNG 3411, Cost Accounting

## Requirements for the Minor

Students must apply for the minor in sociology. Candidates must complete at least 15 hours of departmental course work in sociology, of which at least 9 must be completed at UMSL's department of sociology and must be beyond those applied to the candidate's major. At least 6 hours must be at the 4000 level (no more than 3 hours of either SOC 4350, Special Study, or SOC 4385, Internship may be applied to this 4000 level requirement).

Candidates who anticipate that their background in sociology may play a substantial role in their career plans are strongly encouraged to take some or all of the core requirements.

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.

## Department Awards

The department offers several annual awards to outstanding students on the basis of merit.
The Ray Collins Alumni Award is given annually by the Sociology Alumni Association to the top graduating senior. Faculty select the awardee on the basis of GPA, and the award consists of first-year membership dues in the Sociology Alumni Association and a cash award.

The Alumni Agent Scholarship and the Sociology Alumni Scholarship are given to deserving sociology majors annually. Faculty select the awardees on the basis of merit.

A series of undergraduate awards are given to outstanding students. The Freshman Sociology Award is given to the outstanding freshman student in lower-division sociology course work; the Outstanding Junior Sociology Major Award is given to the outstanding junior sociology major; the Outstanding Sociology Minor Award is presented to the graduating student with the most outstanding minor GPA record; and the Outstanding Sociological Statistics and Methods Award is given to the sociology major with the best overall record in SOC 3220 and 3230 . This award carries a stipend for the student to serve as an undergraduate course assistant for SOC 3220, or 3230.

## Department Honors

The sociology department will award department honors for those B.A. and B.S. degree candidates in sociology with an overall grade point average of 3.2 or better. They must also successfully complete an independent study through SOC 4350, Special Study.

## Undergraduate Certificate on Disaster and Risk Management

The undergraduate certificate program on Disaster and Risk Management offers a multi-disciplinary course of study focusing on the key challenge of developing resilience against disaster-preventing, preparing for, and responding to disasters and catastrophes. It brings together a range of disciplines to provide students with theoretical and practical insights into managing risks posed by natural, accidental, and intentional threats confronting urban communities. The certificate program emphasizes social psychological, organizational, legal, and political relationships brought to bear on the socio-technical systems designed to prevent, prepare for, or respond to disasters and catastrophes. It provides educational and practical opportunities for students planning careers in public safety, counterterrorism, community and research planning, public policy making, emergency management, leadership in the public sector, and the mass media. The certificate program aims to guide students in learning to manage efforts of public and private institutions to build resilience in their own socio-technical systems and in the community. Each discipline participating in the certificate program brings a distinct perspective to bear on the key issues involved in developing resilience in homeland security. Sociology offers a framework on the relationship of socio-technical systems and community organization that will prove conducive to students gaining both theoretical and practical insights into threats posed by disaster and catastrophe.

Undergraduate students earn a certificate on Disaster and Risk Management by completing 18 hours with a GPA of 2.0 or better from the following courses:

POL SCI 3200, Constitutional Law (3 hrs)
ECON 4160, Geospatial analysis in the Social Sciences (GIS) (3 hrs)
PSYCH/ GS 2232, Psychology of Victims (3 hrs) OR
SOC 3250 Sociology of Victimization ( 3 hrs )
BUS AD 3798, Transportation Security, Safety, and Disaster Preparedness (3 hrs)
MEDI A ST 4040, Disaster and Media Management ( 3 hrs )
COMM 3150, Crisis, Disaster, and Risk Communication (3 hrs)

## Special topic courses relevant to disaster and risk management may be included in the certificate program when approved in advance by the Coordinator of the Disaster and Risk Management Certificate.

## Graduate Studies (Inactive)

## 2+3 B.A. and M.A. in Sociology

The $2+3$ combined B.A./M.A. program in sociology provides an opportunity for students of recognized academic ability and educational maturity to fulfill integrated requirements of the undergraduate and master's degree programs from the beginning of their junior year. Because of its accelerated nature, the program requires the completion of some lower-division requirements of ( 12 hours) before entry into the three-year portion of the program. When all the requirements of the B.A. and M.A. programs have been completed, the 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, of which 30 must be at the 4000 or 5000 levels. In qualifying for the B.A., students must meet all University and college requirements, including the requirements of the undergraduate major described previously. During the junior and senior years, students normally take a 4000 level research practicum course, SOC 5400, SOC 5402, and SOC 5404. In qualifying for the M.A., students must meet all University and Graduate School requirements, including satisfactory completion of a minimum of 30 graduate credit hours. Up to 12 graduate credit hours may be applied simultaneously to both the B.A. and M.A. programs. Any 4000 level course applied to the M.A. requirements will require additional work to qualify for graduated credit.

Students should apply to the Graduate Director of Sociology for admission to the $2+3$ combined degree program in sociology the semester they will complete 60 undergraduate degree credit hours, but no later than the accumulation of 90 credit hours. 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 $2+3$ programs under provisional graduate status until they have completed 30 credit hours with a grade point average of 3.0 or higher. After completion of the provisional period, and with recommendation of the Graduate Director, 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 $2+3$ combined degree program will be awarded the B.A. degree when they have successfully completed all the requirements for the degree.

The following requirements must be completed prior to enrolling in the $2+3$ program:
SOC 1010, Introduction to Sociology and three additional sociology courses.
The following undergraduate courses are required for majors in the $2+3$ program:
SOC 3210, Sociological Theory
SOC 3220, Sociological Statistics (or an approved statistics course)
SOC 3230, Research Methods
Graduate Sociology Requirements for Students in the $2+3$ Program
The following graduate courses are required at the 4000 to 5000-level:

1. SOC 5400, Proseminar in Sociology
2. SOC 5402, Advanced Quantitative Techniques
3. SOC 5404, Advanced Methodology
4. Five additional courses ( 15 hours) that have been approved by the Graduate Director

## Graduate Exit Requirements:

Students may choose between a thesis and non-thesis course of study.
Students choosing a non-thesis option must complete one of the following requirements: an additional 6-hour course work, a 6-hour research project, or a 6-hour internship.

Each candidate is given a final oral review of the course work completed and the student's chosen exit project or thesis by a faculty committee.

## M.A. in Sociology

The department offers a flexible program of studies leading to the Master of Arts degree in sociology. Course work combines intensive examination of the core areas of sociology with acquisition of the analytical skills of sociological investigation. A variety of career options are available to the master's-level graduate, including: program evaluation and research; field or casework related to community issues; administrative roles in social agencies and planning organizations; or doctoral studies in sociology or related fields.

The curriculum is designed to serve the needs of full-time students as well as working students who are able to engage only in part-time studies. This design allows pre-career and mid-career students to prepare for employment in education, service agencies, community organizations, government agencies, or businesses. The curriculum also invites students to take advantage of the university's urban setting through integration of selected work experiences with practicum courses and academic seminars under faculty guidance. The curriculum emphasizes theoretical, analytic, and substantive approaches to urban-related problem solving.

## Admission Requirements

Individuals with at least the equivalent of the department's B.A. or B.S. degree in sociology may be admitted to the Graduate School as candidates for the M.A. degree. Students with bachelor's degrees in fields other than sociology may be admitted to pursue graduate sociology studies under the condition that they make up core deficiencies prior to graduate work.

## In addition to meeting the general admission requirements of the Graduate School, a student should ordinarily have:

- A baccalaureate degree with a minimum grade point average of 3.0.
- At least 15 hours in the social sciences, of which 12 should be in upper-level courses.
- Three letters of recommendation from persons qualified to judge the candidate's potential for success in the program.
- A statement describing the applicant's interest in graduate study in sociology.

Students who do not meet these requirements may be provisionally admitted upon approval of the department and the dean of the Graduate School. Admission and financial aid decisions are made on the basis of past academic record, program performance, and career commitment. Students wishing to continue regular employment outside the university may enroll on a part-time basis. Requests for further information about the program should be sent to:

Director of Graduate Studies
Sociology
University of Missouri-St. Louis
One University Blvd.
St. Louis, MO 63121-4400

## Degree Requirements

## Master of Arts in Sociology

Each student shall prepare an adviser-approved course of study during the first semester of enrollment. Candidates for the M.A. degree shall complete a minimum of 30 hours of approved study, at least 21 of which must be taken in courses offered by the department. Students may choose between a thesis and non-thesis course of study.

## Core Curriculum

SOC 5400, Proseminar in Sociology
SOC 5402, Advanced Quantitative Techniques
SOC 5404, Advanced Methodology
The sociology department participates in a joint quantitative techniques and methodology series of courses with the other social sciences which can be substituted for the above.

Concentration The department offers opportunities for intensive work in one of the several research areas of department faculty members, which allows the flexibility for comprehensive and coherent exposure to the methods and insights of the discipline. Matriculating students are encouraged to plan, with their advisers, a coherent program of studies consistent with their career interests.

Exit Requirements A student's program must include one of the following exit projects: a 6-hour internship; SOC 5480, Individual Study or a 6-hour preparatory sequence and an approved paper SOC 5490, Supervised Research. 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 or thesis.

## Career Outlook

The following career information is adapted from the American Sociological Association Web site.

A B.A. or B.S. in sociology is excellent preparation for graduate work in sociology for those interested in an academic or professional career as a professor, researcher, or applied sociologist.

The undergraduate degree provides a strong liberal arts preparation for entry level positions throughout the business, social service, and government worlds. Employers look for people with the skills that an undergraduate education in sociology provides. Since its subject matter is intrinsically fascinating, sociology offers valuable preparation for careers in journalism, politics, public relations, business, or public administration fields that involve investigative skills and working with diverse groups. Many students choose sociology because they see it as a broad liberal arts base for professions such as law, education, medicine, social work, and counseling. Sociology provides a rich foundation of knowledge that directly pertains to each of these fields.

Today, sociologists embark upon literally hundreds of career paths. Although teaching and conducting research remains the dominant activity among the thousands of professional sociologists today, other forms of employment are growing both in number and significance. In some sectors, sociologists work closely with economists, political scientists, anthropologists, psychologists, social workers and others reflecting a growing appreciation of sociology's contributions to interdisciplinary analysis and action.

## Course Descriptions

## SOC 1010 I ntroduction to Sociology (3) [V, SS]

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) [V, SS]
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 2100 Women in Contemporary Society (3)

Same as GS 2100. Prerequisite: SOC 1010 or GS 2102 or consent of instructor. An introduction to the sociological analysis of the status of women in society, including their work, family, and political roles. Socialization, education, and the women's movement will also be considered, as these affect the position and participation of women in a variety of social arenas.

## SOC 2102 Introduction to Women's, Studies: Gender, and Diversity (3)

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 2160 Social Psychology (3)

Same as PSYCH 2160. Prerequisite: SOC 1010 or PSYCH 1003. 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 2170 Aging in America : Concepts and Controversies (3)

Same as SOC WK 2670, INTDSC 2170, and GERON 2170. This course examines the major theoretical and service issues connected to the study of older adults and their families, using multidisciplinary perspectives. Students are provided with an introduction to the field of aging through an examination of current social issues and controversies. This course emphasizes student involvement through class discussion, and is appropriate for students in the arts and sciences, business, communication, education, and nursing.

## SOC 2180 Alcohol, Drugs, and Society (3)

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 3200 Sociology of Deviant Behavior (3)

Prerequisite: SOC 1010 or consent of instructor. Theories of the nature, causes, and control of deviance as a social phenomenon. Application of theories to specific substantive areas, such as mental disorder, delinquency, drug abuse, suicide, unconventional sexuality, and physical disability.

## SOC 3202 Urban Sociology (3)

Prerequisite: SOC 1010 or consent of instructor. Urbanization as a world phenomenon; urban social and ecological structures and changing life styles; the decision-making processes in urban problem-solving.

SOC 3210 Sociological Theory (3)
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 3220 Social Statistics (3)
Same as ANTHRO 3220. Prerequisites: SOC 1010 or ANTHRO 1011 and MATH 1020 or 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.

SOC 3224 Marriage and the Family (3)
Same as GS 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.

SOC 3230 Research Methods (3)
Prerequisites: SOC 1010 and SOC 3220 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 3241 Globalization and Its Impact on Society and Culture (3)
Prerequisite: SOC 1010 or consent of instructor. This course examines a variety of economic, cultural, and social changes that are transforming our world. It clarifies what globalization is and how it is affecting societies around the world. Topics include an overview of theories of globalism and global culture, and roles of technology and the media in shaping society and people's everyday lives.

## SOC 3250 Sociology of Victimization (3)

Same as GS 3250. Prerequisite: SOC 1010. 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 3268 Sociology of Conflict (3)

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 Society and Technology (3)
Prerequisite: SOC 1010 or consent of instructor. Technology in industrial and post-industrial societies. The social shaping of technological systems. The role of technology in social change.

SOC 3290A Undergraduate Seminar in Sociological Issues (3)
Prerequisite: SOC 1010 and consent of instructor. Consideration of an issue or area of the instructor's choice not already covered by other undergraduate courses. May be taken up to three times for nine hours credit, provided the subject matter is different each time the seminar is taken.

## SOC $\mathbf{3 6 0 0}$ Management and Organizational Behavior (3)

Same as MGMT 3600. Prerequisites: Junior standing and a 2.0 campus GPA. This course involves the study of 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.

Note: Any 4000 level course taken for major elective credit requires prior completion of two of the following: SOC 3210, SOC 3220, or SOC 3230.

SOC 4040 Survey Research Practicum (3)
Same as POL SCI 4040. Prerequisites: Junior standing, SOC 3220, SOC 3230, 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 taken more than once for credit provided the course topic is different each time.

SOC 4150 Feminist Theory and Social Research (3)
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 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, class and sexual inequalities across a range of contemporary social problems.

Fulfills GS feminist theory requirement.

## SOC 4300 Communities and Crime (3)

Same as CRIMIN 4300. Prerequisites: CRIMIN 1110, CRIMIN 1120,CRIMIN 1130, 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. Community crime prevention efforts are also addressed.

SOC 4312 Sociology of Wealth and Poverty (3)
Prerequisites: SOC 1010 and junior standing or consent of instructor. Theory and research on social stratification and inequality in contemporary societies.

SOC 4316 Power, I deology, and Social Movements (3)
Prerequisites: SOC 1010 and junior standing or consent of instructor. Effect of events and social processes on thought and action in the twentieth century. Social functions of ideologies as expressed in movements and formal and informal organizations seeking social change.

## SOC 4320 Forms of Criminal Behavior (3)

Same as CRIMIN 4320. Prerequisites: CRIMIN 1110, 1120, 1130, 2210, 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.

SOC 4325 Gender, Crime and J ustice (3)
Same as CRIMIN 4325. Prerequisites: CRIMIN 1110, 1120, 1130, 2210, 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 Criminology diversity requirement.

SOC 4331 Qualitative Methods in Social Research (3)
Prerequisites: SOC 3220 and SOC 3230, or their equivalent, or consent of instructor. This course is devoted to such qualitative methods as participant observation, intensive interview, content analysis, and oral history, among others. The place of these kinds of techniques in social research, as well as the issues raised by them, will be considered. Students will participate in individual or group research projects using one or more of the methods discussed.

## SOC 4336 Organizations and Environments (3)

Prerequisites: SOC 1010 and junior standing or consent of instructor. Internal and external forces that influence the structures, adaptive flexibility, and actions of public and private organizations and agencies are examined. Specific foci include: organizational responses to environmental opportunities, constraints, and contingencies; sources of conflict and impediments to organizational goal attainment; and strategies for increasing organizational effectiveness, efficiency, and chances for survival.

## SOC 4338 Sociology of Health (3)

Prerequisites: SOC 1010 and junior standing. 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 4340 Race, Crime, and J ustice (3)
Same as CRIMIN 4340. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 1130, 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.

## SOC 4344 Problems of Urban Community (3)

Prerequisites: SOC 1010 and junior standing, or consent of instructor. The urban community as an area of social action and problem solving with emphasis on the sociological aspects of urban problems.

SOC 4350 Special Study (1-10)
Prerequisite: Consent of instructor. Independent study through readings, reports, and field work.
SOC 4354 Sociology of Business and Work Settings (3)
Prerequisites: SOC 1010 and 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 work place and business behavior.

SOC 4356 Sociology of Education (3)
Prerequisites: 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)

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)
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)

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)
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 Selected Topics in Social Policy (1-3)

Prerequisites: SOC 1010, J unior standing or consent of instructor. Examination of a specific sociological topic of current relevance in the community. May be taken more than once for credit provided the course topic is different each time.

## SOC 4385 Internship in Sociology (1-6)

Prerequisites: Junior standing and consent of instructor. Students participate in supervised placements in a position related to the profession of sociology.

## SOC 4414 Social Perspectives on Catastrophes and Homeland Security Policies (3)

Prerequisites: SOC 1010 and junior standing or consent of instructor. This course examines the way social and cultural processes shape our experience and understandings of catastrophe and disasters. It provides an analysis of the ways technological, organizational, cultural, and political forces affect policies dealing with catastrophe preparation and prevention in the United States.

## SOC 4450 Disaster and the Law (3)

Prerequisite: J unior standing or consent of instructor. This course examines the general legal framework in the United States into which the subject of disasters and the law fits. It provides an understanding of the coordination of resources required to respond to disastrous situations including laws, rules, and regulations at state, local, and federal levels. Students will also become familiar with legal context and constraints for disaster management, administrative law, administrative discretion, and liability issues.

## SOC 4600 Masculinities (3)

Same as GS 4600. Prerequisite: 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 GS gender theory requirement.

## SOC 4940 Leadership and Management in Nonprofit Organizations (3)

Same as SOC WK 4940, POL SCI 4940, and P P ADM 4940. Prerequisite: Junior standing. 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 mobilizations; and program development management and evaluation.

## SOC 5361 Advanced Social Gerontology (3)

Same as GERON 5361. Prerequisite: 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.

## SOC 5400 Proseminar in Sociology (3)

Required of all entering graduate students in the fall semester of the first year of residency. An overview of the field of contemporary sociology, with emphasis on the major theories, issues, research approaches, and ethical problems in the field today, and an introduction to theory construction, measurement, and design strategies.

## SOC 5402 Advanced Quantitative Techniques (3)

Prerequisite: SOC 3220 or consent of instructor. A study of advanced quantitative analysis of sociological data, focusing on problems of multivariate analysis, sampling theory and techniques, and the use of electronic data processing in approaching these problems.

SOC 5404 Advanced Methodology (3)
Prerequisite: SOC 3230 or consent of instructor. A study of methodological problems on an advanced level, focusing on contemporary issues in the processes of inquiry with particular emphasis on the applicability of different modes of research to various types of theoretical problems. Consideration of ethical problems in social research.

## SOC 5415 Foundations of Criminological Theory (3)

Same as CRIMIN 5415. 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.

## SOC 5449 Issues in Retirement (3)

Same as GERON 6449. Prerequisite: 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.

## SOC 5475 Introduction to Evaluation Research Methods (3)

Same as P P ADM 6750. Prerequisite: 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.

## SOC 5480 Individual Study (3)

Prerequisites: Consent of adviser and instructor. Designed to give the student the opportunity to pursue particular interests within the discipline and/or to study areas not currently covered by formal courses. Guided by faculty with appropriate interests. May be taken only twice.

## SOC 5490 Supervised Research (1-10)

Prerequisites: Graduate standing and consent of instructor. Individual supervision of research leading to the preparation of a thesis, research paper, or publishable article, in which the student demonstrates skills in the discipline of sociology.

## SOC 5495 Sociological Reporting (3)

Prerequisites: SOC 5400, 5402, and 5404. As part of the M.A. degree exit requirement, the seminar offers directed practice in the interpretation and reporting of sociological data in a wide range of styles, including those appropriate for research reports, journal articles, policy papers, nontechnical magazines, books, and monographs, as well as oral reports to diverse consumers. Ethical dimensions of interpretation and dissemination are explored.

## SOC 6443 Health Care Policy (3)

Same as GERON 6443, P P ADM 6340, and POL SCI 6443. Prerequisite: 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.

## SOC 6444 Seminar in Public Policy and Aging (3)

Same as GERON 6444, PP ADM 6440 and POL SCI 6444. Prerequisite: 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.

SOC 6446 Selected Topics in Health Care Policy (3)
Same as P P ADM 6460 and 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.

## Gender Studies Program

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## UMSL Home

Gender Studies Program Home Page
Director
Sally Barr Ebest, Professor, English
Ph.D., Indiana University

## Affiliate Faculty

Judith Cochran, E. Desmond Lee Professor of Tutorial Education
Ph.D., Arizona State University
Glen Cope, Provost and Vice Chancellor for Academic Affairs
Ph.D., Ohio State University
Janet Murray, E. Desmond Lee Professor for Developing Women Leaders and Entrepreneurs, Business
Administration
Ph.D., University of Missouri, Columbia
Barbara Harbach, Professor, Music
Ph.D., Eastman School of Music
Margaret Sherraden, Professor, Social Work
Ph.D., Washington University
Anne Winkler, Professor, Economics
Ph.D., University of Illinois-Urbana
Jeanne Morgan Zarucchi, Professor, French and Art and Art History
Ph.D., Harvard University
Brenda Bredemeier, Associate Professor, Teaching \& Learning
Ph.D., Temple University
Sheilah Clarke-Ekong, Associate Professor, Anthropology
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Deborah Cohen, Associate Professor, History
Ph.D., University of Chicago
Suellynn Duffey, Associate Professor of English
Ph.D., The Ohio State University
Kathy Gentile, Associate Professor, English
Ph.D., University of Oregon
Ruth I yob, Associate Professor, Political Science
Ph.D., University of California, Santa Barbara
Farida Jalalzai, Associate Professor, Political Science
Ph.D. University of Buffalo - SUNY
Minsoo Kang, Associate Professor in History
Ph.D., University of California - Los Angeles
Virginia Navarro, Associate Professor, Teaching \& Learning
Ph.D., Washington University
Nanora Sweet, Associate Professor, English(Ret'd)
Ph.D., University of Michigan
Laura Westhoff, Associate Professor, History and Education
Ph.D., Washington University
Berit Brogaard, Associate Professor, Philosophy
Ph.D., SUNY Buffalo
Kristin Carbone-Lopez, Assistant Professor, Criminology and Criminal Justice
Ph.D., University of Minnesota
Zoe Peterson, Assistant Professor, Psychology
Ph.D., University of Kansas
Carol Peck, Professor, Emerita, Optometry
Ph.D., University of California - Los Angeles

Jayne Stake, Professor Emerita, Psychology'<br>Ph.D., Arizona State University<br>Nancy Gleason, Associate Dean \& Director of Writing, Pierre Laclede Honors College<br>M.A., University of Missouri-St. Louis<br>Kimberly Baldus, Associate Teaching Professor, Pierre Laclede Honors College<br>Ph.D., Northwestern University<br>Maria Balogh, Assistant Teaching Professor, Spanish<br>M.A., Southern Illinois University, Carbondale, MFA, University of Missouri-St. Louis<br>Kathleen Nigro, Associate Teaching Professor, English<br>Ph.D., St. Louis University<br>Lori Curtis, Assistant Teaching Professor, Social Work<br>M.S.W., Washington University<br>Deana L. Smith, Assistant Clinical Professor in Psychology<br>Ph.D., University of Missouri-St. Louis<br>Deborah Maltby, Assistant Teaching Professor, English<br>Ph.D., University of Missouri-Kansas City<br>Margaret Phillips, Assistant Teaching Professor, Latin<br>Ph.D., St. Louis University<br>Drucilla Mims Wall, Assistant Teaching Professor English<br>Ph.D., University of Nebraska<br>Lynn Staley, Assistant Teaching Professor, English<br>Ph.D., St. Louis University<br>Vivian Eveloff, Director, Sue Shear Institute for Women in Public Life<br>Malaika Horne, Director, Executive Leadership Consortium<br>Ph.D., St. Louis University<br>Dayna Stock, Manager of the Sue Shear Institute for Women in Public Life<br>M.P.P.A.,Ph.D., University of Missouri-St. Louis

## 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 and women's issues, and 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 feminist 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 selfdirected 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 Laclede 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 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 Introduction to Gender Studies
2) GS 3033 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 Independent Study in Women's and Gender Studies, GS 4353 Internship in Women's and 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 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 Introduction to Gender Studies
2) GS 3033 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 Independent Study in Women's and Gender Studies, GS 4353 Internship in Women's and 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 (Pending Coordinating Board of Higher Education approval)
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 Introduction to Gender Studies
2) Capstone Experience: The capstone requirement may be satisfied by GS 4352, Independent Study in Gender Studies, or GS 4353, 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, Male-Female Communication
COMM 2232, Communication in Organizations: Tools for Leadership
GS 2150, Special Topics in Gender Studies: Women's Leadership
MGMT 3600, Management and Organizational Behavior (Same as SOC 3600)
MGMT 3611, Advanced Management and Organization Behavior
MGMT 3623, Industrial and Organizational Psychology. (Same as PSYCH 3318)
MGMT 3625, Leadership in Organizations
MKTG 3785, Women in International Entrepreneurship, (Prerequisites: MKTG 3700 basic Marketing) and
MKTG 3780, (International Marketing)
PHIL 2253/ GS 2253, Philosophy and Feminism
POL SCI 2380, The Politics of Gender in the United States
POL SCI 3590, Women and Leadership World-Wide, Breaking the Glass ceiling
PSYCH 2230, Psychology of Women
PSYCH 3316, Fundamentals of Leadership
PSYCH 3318, Industrial and Organizational Psychology (Same as MGMT 3623)
SOC 3600, Management and Organizational Behavior (Same as MGMT 3600)

## 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 Women's and 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, Advanced Sexuality and Gender Theory, GS 5040 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 Special Readings in Women's and Gender Studies, or a substantial research and writing project for a GS graduate seminar, which may be GS 6450 Seminar in Women's and 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 we well as toward the certificate.

## Course Descriptions

## GS 1004 The History of Women in the United States (3)

Same as HIST 1004 A survey of women's history from the colonial era to the present.

## GS 2100 Women in Contemporary Society (3)

Same as SOC 2100. Prerequisite: SOC 1010 or GS 2102 or consent of instructor. An introduction to the sociological analysis of the status of women in society, including their work, family, and political roles. Socialization, education, and the women's movement will also be considered, as these affect the position and participation of women in a variety of social arenas.

## GS 2102 Introduction to Gender Studies (3)

Same as SOC WK 2102, HIST 2102, and SOC 2102 This core class is required for all 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 2140 Female Sexuality (3)
Prerequisite: PSYCH 1003, or BIOL 1012, or its equivalent.
GS 2150 Special Topics in Gender Studies* (3)
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 2230 Psychology of Gender (3) [V,SS]

Same as PSYCH 2230 Prerequisite: PSYCH 1003. Evaluation of psychological theories and research regarding physiological, cognitive, and personality sex differences, female problems in adjustment, and clinical intervention for women.

GS 2232 Psychology of Trauma (3)
Same as PSYCH 2232. Prerequisite: 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)

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, and the ethics of care.

## GS 2290 Gender and the Law (3)

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 The Politics of Gender in the United States (3)

Same as POL SCI 2380. Prerequisite: 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 State requirements in American History and Government.)

GS 2410 Work, Families, and Public Policy (3)
Same as ECON 2410. 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 GS 2410 for credit.

## GS 3031 History of Gender in the United States (3)

Same as HIST 3031 Prerequisite: J unior 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 theorists and activists; images of women.

## GS 3032 History of Gender in Comparative Cultures (3)

Prerequisite: 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 these roles.

## GS 3033 Sexuality and Gender Theory (3)

Same as HIST 3033. Prerequisite: Junior Standing or consent of instructor. This 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. It then explores dynamic links between theory and the formal structures of political economy as well as the informal structures of everyday life.

## GS 3034 History of Sexuality (3)

Prerequisite: 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 the manner in which sex has been deployed in broader historical struggles involving gender, race, class, migration and state building.

GS 3224 Marriage and the Family (3)
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.

GS 3250 Sociology of Victimization (3)
Same as SOC 3250. Prerequisite: SOC 1010. 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)*
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)

Prerequisites: Junior standing; two courses in Women's and Gender Studies, including 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)

Same as ST ART 3376. Prerequisite: 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.

## GS 3590 Women and Leadership World-Wide: Breaking the Glass Ceiling (3)

Same as POL SCI 3590. Prerequisite: 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 J ustice (3)
Same as SOC WK 3700 Prerequisite: SOC 1010 or equivalent. 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 Power \& Practice: I ntroduction to Feminist \& Gender Theory (3)
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)

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 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 GS feminist theory requirement.

## GS 4300 The Female Gaze: Women and the Media (3)

Prerequisite: 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 J ustice (3)
Same as CRIMIN 4325 and SOC 4325. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 1130, CRIMIN 2210, CRIMIN 2220, 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)
Same as CRIMIN 4330. Prerequisites: Junior Standing, CRIMIN 1110, CRIMIN 1120, CRIMIN 1130, 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)

Prerequisite: 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 IWGS Director.
GS 4352 I ndependent Study in Gender Studies (1-3)
Prerequisite: GS 2102 or consent of instructor. Independent, directed readings and research in a women's and gender related topic, to be determined in consultation with instructor.

GS 4353 Internship in Gender Studies (3)
Prerequisites: 90 hours. 2.5 GPA, 12 WGS hrs. Internship would place the student in a profit or nonprofit setting for approximately ten hours a week in an internship structured and supervised by the Institute; consent of Director required; may include biweekly seminar. Student must present appropriate course background for either option, plus the above pre/co-requisites.

## GS 4360 Sociology of Minority Groups (3)

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)

Same as PHIL 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)

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 Domestic Violence: Theory, Problems, and Practice (3)

Same as SOC WK 4610. Prerequisite: SOC WK 3150. Focuses on theoretical and empirical understanding of domestic violence in U.S. society and social work practice with battered women and their families. This course 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 Women's Social Issues (3)

Same as SOC WK 4630. Prerequisite: SOC WK 3150 or equivalent. This course will help students become more sensitive to the social and welfare concerns of women. The topics 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)

Prerequisite: GS 2102, or consent of instructor. We will read and analyze nature writings 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)

Prerequisite: 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)

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)
Same as ENGL 4931. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. Texts covered will range 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)

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 4934 Austen and the Brontes (3)
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 J ane 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 4935 Women Heroes and Romantic Tales (3)

Same as ENGL 4935. Prerequisites: Students must satisfy English prerequisites for 4000-level courses or obtain permission of instructor. Women as epic and romantic heroes in British and transatlantic writing 1790s1850s: reformers and rulers in novels by Mary Wollstonecraft and Mary Shelley; a runaway slave and an epic poet in works by Mary Prince and Elizabeth Barrett Browning; erotic and political adventures in Robinson, Dacre, Hemans; American icons "Pocahontas" and "Evangeline" in Sigourney and Longfellow.

## GS 4936 Tales of the I slamic East (3)

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 Baghdad, 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)

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 5350 Topics in Women's and Gender Studies (3)

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)*

Prerequisite: 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)

Same as SOC WK 5500. Prerequisite: 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 5700 Diversity, Social Justice and Social Practice (3)

Same as SOC WK 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.

## GS 5940 Seminar in Gender and Literature (3)

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 \& I dentity (3)

Same as TCH ED 6350. Prerequisite: 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 I nternship in Gender Studies (1-6)
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)

Same as PSYCH 7410. Prerequisite: 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.

GS 6418 Seminar in Human Sexuality (3)
Prerequisite: Admission to the doctoral program in Clinical Psychology or consent of instructor. Review of theory and research in human sexuality from physiological, psychological, and social perspectives. Implications for the assessment and treatment of sexual dysfunction are considered.

## GS 6446 Sex Crime (3)

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)*
Prerequisites: Graduate standing and consent of instructor. Critical examination of advanced topics in the humanities, social sciences, or natural sciences from women's and gender studies perspectives. May be taken more than once provided that the subject matter is different each time the seminar is taken.

GS 6452 Special Readings in Gender Studies (3)
Prerequisites: Admission to Graduate Certificate program and consent of instructor. Directed independent work on a selected Women's and Gender Studies topic through readings, research, reports, and/or conferences.

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## College of Business Administration

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## UMSL Home

## College of Business Administration Home Page

## Faculty

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Ph.D., Pennsylvania State University
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David Ricks, Curators' Professor Emeritus
Ph.D., Indiana University
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Ph.D., University of Wisconsin- Madison
Nasser Arshadi, Professor, Vice Provost for Research
Ph.D., University of Nebraska
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Ph.D., Ohio State University
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Ph.D., Washington University
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Ph.D., Texas A \& M University
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Ph.D., University of New Orleans
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Ph.D., University of South Carolina at Columbia
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John Cox, Instructor Emeritus
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Ottilia Voegtli, Instructor Emeritus
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Joy Dakich, Lecturer
M.A., University of Missouri-St. Louis

Mary Duncan, Lecturer
MSIS, University of Missouri-St. Louis
Emily K. Lane
M.S., University of Missouri-St. Louis

Johnna Murray, Lecturer
MAcc., University of Missouri-St. Louis

## 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, consistent with the land-grant mission of the University of Missouri.

I ntegrity: 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 Programs

Detailed information concerning all degree requirements can be found by visiting The College of Business Undergraduate Advising web site.

## 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, Financial Accounting<br>ACCTNG 2410, Managerial Accounting<br>BUS AD 2900, Legal Environment<br>ECON 1001, Microeconomics<br>ECON 1002, Macroeconomics<br>I NFSYS 2800, Information Systems Concepts and Applications<br>MATH 1030, College Algebra<br>MATH 1100, Basic Calculus<br>MATH 1105, Basic Probability and Statistics

## Lower Division Requirements- all degrees--all students

Each student must complete a 42-hour block of general education coursework 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 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.

## Lower Division Non-Business Course Requirements

Students pursuing any undergraduate business degree must complete the following non-business courses:
ECON 1001, Principles of Microeconomics (valuing skill goal and social science knowledge goal)
ECON 1002, Principles of Macroeconomics (social science knowledge goal)ENGL 1100, Freshmen
Composition (communicating skill goal)
One additional "communicating skills goal" course
MATH 1030, College Algebra (math/science knowledge goal)
MATH 1100, Basic Calculus (math/science knowledge goal)
MATH 1105, Basic Probability and Statistics (math/science knowledge goal)
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
ACCTNG 2410, Managerial Accounting
BUS AD 2900, Legal Environment of Business
I NFSYS 2800, Information Systems Concepts and Applications
Upper Division Requirements- all degrees--all students
Upper Division Non-Business Requirement
ENGL 3120, Business Writing, with a minimum grade of C-
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.

## Upper Division Business Requirements

FI NANCE 3500, Financial Management
LOG OM 3300, Business Statistics
LOG OM 3320, Introduction to Operations Management
MGMT 3600, Management and Organizational Behavior
MGMT 4219, Strategic Management
MKTG 3700, Basic Marketing
A minimum of 18 additional hours of upper division approved business electives

## Assessment- All degrees--all students

MGMT 4220, Business Assessment Testing, is administered to all graduating seniors. A "Satisfactory" grade is required for graduation.

## 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. However, all lower division courses required as part of a degree program at UMSL must be completed.

Requirements Unique to Specific Degrees in the College of Business Administration

## Bachelor of Science in Accounting Degree

Lower or Upper Division Non Accounting Courses Required
One of:
COMM 1030, Interpersonal Communication I
or
COMM 1040, Introduction to Public Speaking
and one of:
PHIL 1130, Approaches to Ethics or
PHIL 2254, Business Ethics
Upper Division Accounting Courses Required
ACCTNG 3401, Financial Accounting and Reporting I
ACCTNG 3402, Financial Accounting and Reporting II
ACCTNG 3411, Cost Accounting

ACCTNG 3441, Income Taxes
and one of either
ACCTNG 3421, Accounting Information Systems and Spreadsheet Applications or I NFSYS 3810, Information Systems Analysis

The prerequisite for enrollment in ACCTNG 3402, 3411, 3441, 3451 and all 4000 -level accounting courses is an upper-level accounting grade point average of 2.2 . 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, ACCTNG 2400, ACCTNG 2410. MATH 1030 (College Algebra) is a prerequisite for the required accounting courses. It may be taken concurrently with ACCTNG 2400, but must be completed prior to enrollment in ACCTNG 2410. 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, 3411, 3441, 3451 and all 4000-level accounting course is an upper-level accounting grade point average of 2.3 or higher.

Required courses:
ACCTNG 3401, Financial Accounting \& Reporting I
ACCTNG 3402, Financial Accounting \& Reporting II
ACCTNG 3411, Cost Accounting
ACCTNG 3421, Accounting Information Systems
ACCTNG 3441, Income Taxes
ACCTNG 4435, Auditing
Electives (most of these are offered only once a year)
ACCTNG 3451, Accounting for Governmental and Not-for-profit Entities
ACCTNG 4401, Financial Accounting \& Reporting III
ACCTNG 4402, Financial Accounting \& Reporting IV
ACCTNG 4405, Professional Accounting Research
ACCTNG 4441, Advanced Federal Income Tax: Tax Research and Business Taxation
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
FI NANCE 3501, Financial Policies
FI NANCE 3502, Treasury Management
FI NANCE 3503, Computer Applications in Finance

FI NANCE 3520, Investments
FI NANCE 3521, Financial Risk Management
FI NANCE 3525, Practicum in Investments
FI NANCE 3540, Financial Services Industry and Instruments
FI NANCE 3541, Commercial Bank Management
FI NANCE 3542, Principles of Real Estate
FI NANCE 3560, Practice of Personal Financial Planning
FI NANCE 3561, Principles of I nsurance
FI NANCE 3562, Life Insurance
FI NANCE 3563, Retirement Planning and Employee Benefits
FI NANCE 3564, Estate Planning and Trusts
FI NANCE 3580/ I NTBUS 3580, International Corporate Finance
FI NANCE 3582/ I NTBUS 3582, International Investment
FI NANCE 3599, Independent Study (approved)

## 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 I nternational 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:
Two of the following courses:
FI NANCE 3580/ I NTBUS 3580, International Corporate Finance
I NTBUS 3680/ MGMT 3680, International Management
MKTG 3780/ I NTBUS 3780, International Marketing
Plus two additional approved international business courses other than INTBUS 3289, the international business practicum. Lists of approved courses include:

I NTBUS 3280, The Law of International Business Transaction
I NTBUS 3281, Business in China
I NTBUS 3282, Managing the Global workforce
I NTBUS 3283, International Business and Society
I NTBUS 3284, The J apanese Management System
I NTBUS 3285, Role of the Global Corporation
I NTBUS 3289, Practicum in International Business
I NTBUS 3290, Internship for International Business
I NTBUS 3299, Independent Study in International Business
I NTBUS 3580/ FI NANCE 3580, International Business
I NTBUS 3582/ FI NANCE 3582, International Investment
I NTBUS 3680/ MGMT 3680, International Management
I NTBUS 3780/ MKTG 3780, International Marketing
I NTBUS 3787/ MKTG 3787, Marketing in the European Union
I NTBUS 4281, Entrepreneurship in the Global Environment
I NTBUS 4289, International Strategic Management
I NTBUS 4381/ LOGOM 4381, International Logistics and Operations Management
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:
I NTBUS 4280, International Business Experience (Required)

1. Study abroad for three or more credits hours.*
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.
*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, Independent Study (approved)
LOG OM 4312, Business Forecasting
LOG OM 4321, Production and Operations Management
LOG OM 4322, Lean Production in Manufacturing and Service Operations
LOG OM 4324, Service Operations Management
LOG OM 4326, Quality Assurance in Business
LOG OM 4330, Business Logistics Systems
LOG OM 4350, Management Science Methods
LOG OM 4354, Operations Research II
LOG OM 4381/ I NTBUS 4381, International Logistics \& Operations Mgmt
I NFSYS 3843, Decision Support Systems
At most, one of the following courses may be counted toward the LOM emphasis area.
I NFSYS 3806, Managerial Applications of Object-Oriented Programming I
I NFSYS 3844, Developing Business Applications in .Net

## Emphasis in Management

The study of management focuses on the behavior of individuals and groups in an organizational setting.
Students must complete MGMT 3611, Advanced Management and Organizational Behavior, plus 5 courses selected from

MGMT 3612, Professional Skills Development
MGMT 3621, Human Resource Management
MGMT 3622, Industrial and Labor Relations
MGMT 3623/ PSYCH 3318, Industrial and Organizational Psychology
MGMT 3624, Employee Training and Development
MGMT 3625, Leadership in Organizations
MGMT 3680/ I NTBUS 3680, International Management
MGMT 3690, Internship in Management (only 1 of 3690 and 3699 can be taken for MGMT emphasis area credit)
MGMT 3699, Independent Study (only 1 of 3690 and 3699 can be taken for MGMT emphasis area credit)
MGMT 4614, Entrepreneurship/ Small Business Management

## 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.

Students must complete MKTG 4700, Marketing Management, plus four additional upper division courses from the following list:
MKTG 3710, Consumer Behavior
MKTG 3720, Management of Promotion
MKTG 3721, Internet Marketing
MKTG 3740, Marketing Research
MKTG 3750, Sales Management
MKTG 3760,Business to Business Marketing
MKTG 3770, Introduction to Transportation
MKTG 3771, Traffic and Transportation Management
MKTG 3780/ I NTBUS 3780, International Marketing
MKTG 3785, Women in International Entrepreneurship
MKTG 3787/ I NTBUS 3787, Marketing in the European Union
MKTG 3790, Internship in Marketing
MKTG 3798, Business Administration Seminar - Marketing
MKTG 3799, Independent Study in Marketing
MEDI A ST 3338, Advertising Techniques
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 - 2 courses ( 6 hours)
I NFSYS 3806, Managerial Applications of Object- Oriented Programming I
I NFSYS 3816, Managerial Applications of Object Oriented Programming II
Analysis and Design-2 courses-(6 hours)
I NFSYS 3810, Information Systems Analysis
I NFSYS 4850, Information Systems Design
Database-1 course (3 hours)
I NFSYS 3845, Database Management Systems
Students must complete 2 courses (at least 1 3800-level Information Systems course) from the following list:
ACCTNG 3421, Accounting Information Systems
FI NANCE 3503, Computer Applications in Finance
I NFSYS 3807, Legacy Systems
I NFSYS 3815, Object Oriented Applications in Business
I NFSYS 3841, Enterprise Information Systems
I NFSYS 3842, Management of Telecommunications
I NFSYS 3843, Decision Support Systems
I NFSYS 3844, Developing Business Applications in .NET
I NFSYS 3846, e-Commerce
I NFSYS 3847, Web Design
I NFSYS 3848, Security and Information Systems
A pre-approved Computer Science Class
Seminars and Independent Studies are restricted to those offered by and approved by the Area faculty and approved by the Area Coordinator
I NFSYS 3898, Seminar in Information Systems Management
I NFSYS 3899, Independent Study in Information Systems

## 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

Five courses selected from
I NFSYS 1800, Computers and Information Systems
ACCTNG 2400, Fundamentals of Financial Accounting
BUS AD 2900, Legal Environment of Business
LOG OM 3320, Introduction to Operations Management
FI NANCE 3500, Financial Management
MGMT 3600, Management and Organizational Behavior
MKTG 3700, Basic Marketing

## 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
ACCTNG 2410, Managerial Accounting
plus any three upper division accounting electives
Minor in Finance
Available to all students except those pursuing the Bachelor of Science in Business Administration degree. Students must complete:

FI NANCE 3500, Financial Management plus any four upper division finance electives

Minor in I nformation Systems
Available to all students except those pursuing the Bachelor of Science in Information Systems degree. Students must complete:

I NFSYS 2800, Information Systems Concepts and Applications
Four of the following courses:
At least three of the courses must be 3800-level IS courses.
(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
plus any four upper division logistics/operations management electives, including no more than one programming course selected from:

I NFSYS 3806, Managerial Applications of Object-Oriented Programming I
I NFSYS 3844, Developing Business Applications in .Net
Minor in Management
Available to all students except those pursuing the Bachelor of Science in Business Administration degree.
Students must complete:
MGMT 3600, Management and Organizational Behavior
MGMT 3611, Advanced Management and Organizational Behavior
plus any 3 upper division management and organizational behavior electives
Minor in Marketing
Available to all students except those pursuing the Bachelor of Science in Business Administration degree. Students must complete:

MKTG 3700, Basic Marketing
plus any 4 additional upper division marketing electives

## 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, Marketing Management, is taken in addition to the requirements listed below. Such individuals will have completed both LOG OM 3320, Introduction to Operations Management, and MKTG 3700, Basic Marketing.)

Students must complete five courses to include:
MKTG 3770, Introduction to Transportation
MKTG 3771, Traffic and Transportation Management
Plus three additional courses selected from:
LOG OM 3320, Introduction to Operations Management
MKTG 3790, Internship in Marketing
MKTG 3799, Independent Study in Marketing*

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MKTG 3700, Basic Marketing
MKTG 3798, Business Administration Seminar: Marketing

* No more than one approved independent study course may count towards the minor.


# BULLETIN <br> University of Missouri - St. Louis 

# College of Business Administration Graduate Programs 

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## UMSL Home

## College of Business Administration Home Page

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-I nternational.

## 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. 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 emphases in Information Systems (IS) and Logistics \& Supply Chain Management (LSCM). This is the only LSCM emphasis in a doctoral business program offered in Missouri and the only IS emphasis in a doctoral business program offered at a public university in Missouri. Courses are taught by fulltime, 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 IS and LSCM expertise.

## Master of Business Administration Program (MBA)

The MBA is available in three formats: the Evening MBA program, the Internet-based Professional MBA program and the International MBA program. All 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 are designed for students who have 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 Evening MBA Program

The MBA curriculum provides training in 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 technology and operations management disciplines.
- Quantitative management decision making models put to use in the context of current management information systems.

The total degree program is integrated by a course in strategy formulation and implementation in the student's last semester. 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

1. Develop the ability to write and deliver a professional presentation.
2. Develop the ability to form teams and work in teams.
3. Understand ethical considerations in all dimensions of business.
4. Be aware of international issues in business.
5. Have the ability to critically evaluate information.
6. Be able to independently research a topic in business.
7. Develop skill in using technology to solve business problems.
8. Understand basic management principles and practices and how they affect the success of an organization.
9. Understand basic finance principles and practices and how they affect the success of an organization.
10. Understand basic accounting principles and practices and how they affect the success of an organization.
11. Understand basic operations and logistic management principles and practices and how they affect the success of an organization.
12. Understand basic marketing principles and practices and how they affect the success of an organization.
13. 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 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, 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 - 18 hours

ECON 4105, Quantitative Methods and Modeling in Economics, Business, and the Social Sciences
BUS AD 5000, Economics for Managers
BUS AD 5100, Managerial Communication
BUS AD 6990, Strategy Formulation and Implementation
LOG OM 5300, Statistical Analysis for Management Decisions
BUS AD 5900, Law, Ethics, and Business
Core Requirements - 18 hours
ACCTNG 5400, Financial and Managerial Accounting
FI NANCE 6500, Financial Management
MGMT 5600, Organizational Behavior and Administrative Processes
MKTG 5700, Contemporary Marketing Concepts
I NFSYS 5800, Management Information Systems
LOG OM 5320, Production and Operations Management

## Business Breadth Requirements - 9 hours

A student must take a second-level course in three of the following areas:
Accounting: ACCTNG 5401, Financial Reporting and Analysis
Finance: Any approved graduate-level course beyond FI NANCE 6500
Management: Any approved graduate-level course beyond MGMT 5600
Marketing: Any approved graduate-level course beyond MKTG 5700
Information Systems: Any approved graduate-level course beyond I NFSYS 5800
Logistics and Operations Management: Any approved graduate-level course beyond LOG OM 5320 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 or above, and six hours must be numbered ACCTNG 4400 or above. ACCTNG 5400 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. 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 <br> Required Course

I NFSYS 5800, Management Information Systems
Four Courses from the following:
I NFSYS 6805, Applications of Programming for Business Solutions
I NFSYS 6835, IT-Enabled Business
I NFSYS 6836, Telecommunications; Design \& MGMT
I NFSYS 6837, IS/IT Architecture
I NFSYS 6838, Business Processes: Design, Management, and Integration
I NFSYS 6840, Information Systems Analysis
I NFSYS 6845, Database Management Systems
I NFSYS 6846, Management of Global Sourcing
I NFSYS 6847, IS Financial and Project Management
I NFSYS 6848, Knowledge Management \& Business Intelligence
I NFSYS 6850, Information Systems Design
I NFSYS 6881, Management of Transnational IS
I NFSYS 6891, Seminar in Management Information Systems

## Guided I nternship

A maximum of 1 course outside IS (Courses outside the College of Business must be approved by the IS department chairperson)

## Emphasis in I nternational 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
FI NANCE 6580, International Financial, Investment, and Commercial Relations
FI NANCE 6590, Seminar in Finance (International Banking)
FI NANCE 6581, Seminar in International Investments
I NFSYS 6846, Management of Global Sourcing
I NFSYS 6881, Management of Transnational Information Systems
LOG OM 5381, International Logistics and Operations Management
MGMT 5689, International Business Strategies
MGMT 5695, Seminar in Management (International Management)
MKTG 5780, Seminar in International Marketing
MKTG 5795, Seminar in Marketing (International Marketing)
BUS AD 5299, Individual Research
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 and LOG OM 5320. 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 courses selected from MGMT 5622, MGMT 5624, MGMT 5625.

## Emphasis in Marketing

MBA students seeking an Emphasis in Marketing must complete a minimum of 12 hours of Marketing electives beyond MKTG 5700, including MKTG 5701. 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 and LOG OM 5320. 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.

## Previous Education

Based on a formal review and evaluation by the Office of Graduate Studies in Business, students may be granted waivers of certain courses from the general and core requirements. Waivers depend on the applicability of prior coursework and the student's performance in these courses. Regardless of the number of courses waived, all students must take at least 39 hours to earn the degree.

## 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, Financial Reporting and Analysis
FI NANCE 6590, Seminar in Finance
MGMT 5695, Seminar in Management
MKTG 5795, Seminar in Marketing
I NFSYS 6891, Seminar in Management Information Systems
LOG OM 6395, Seminar in Logistics and Operations Management

## I nternational 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.

## I nternational 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 AACSBaccredited 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
ACCTNG 5400, Financial and Managerial Accounting
FI NANCE 6500, Financial Management
MGMT 5600, Organizational Behavior and Administrative Processes
MKTG 5700, Contemporary Marketing Concepts
LOG OM 5320, Production and Operations Management
BUS AD 6990, Strategy Formulation and Implementation
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 15 credit hours<br>I NFSYS 5800, Management Information Systems<br>I NFSYS 6805, Applications of Programming for Business Solutions<br>I NFSYS 6840, Information Systems Analysis<br>I NFSYS 6845, Database Management Systems<br>I NFSYS 6850, Information Systems Design

B. IS Electives $\mathbf{1 5}$ credit hours

Students choose 5 elective courses from the following:
I NFSYS 6808, Internet Programming for Business
I NFSYS 6835, IT-Enabled Business
I NFSYS 6836, Telecommunications: Design \& MGMT
I NFSYS 6837, Information Systems Architecture
I NFSYS 6838, Business Processes: Design, Management, and Integration
I NFSYS 6846, Management of Global Sourcing
I NFSYS 6847, Financial \& Project Management
I NFSYS 6848, Knowledge Management \& Business Intelligence
I NFSYS 6881, Management of Transnational Information Systems
I NFSYS 6891, Seminar in Management Information Systems
A maximum of 2 courses outside IS. Courses outside the College of Business must be approved by the IS department chairperson.

## 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: IS 1800, Computers and Information Systems
ACCTNG 2400, Fundamentals of Financial Accounting
ACCTNG 2410, Managerial Accounting
ACCTNG 3401, Financial Accounting and Reporting I
ACCTNG 3402, Financial Accounting and Reporting II
ACCTNG 3411, Cost Accounting
ACCTNG 3421, Accounting Information Systems
ACCTNG 3441, Income Tax
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 Requirements

General Business
All students must complete the following courses:
ECON 4105, Quantitative Methods in Economics
LOG OM 5300, Statistical Analysis for Management Decisions
These requirements may be waived with appropriate prior coursework.
In addition, students must complete six courses from the list below.
BUS AD 5100, Managerial Communication
BUS AD 5900, Law, Ethics, and Business
BUS AD 6990, Strategy Formulation and Implementation
FI NANCE 6500, Financial Management
I NFSYS 5800, Management Information Systems
LOG OM 5320, Production and Operations Management
MGMT 5600, Organizational Behavior and Administrative Processes
MKTG 5700, Contemporary Marketing Concepts
These requirements may be waived with appropriate prior coursework.
Accounting Course Requirements
Students must complete the following three courses:
ACCTNG 4401, Financial Accounting \& Reporting III
ACCTNG 4402, Financial Accounting \& Reporting IV
ACCTNG 4435, Auditing
These requirements may be waived with appropriate undergraduate courses. If these courses are waived, students may need to take additional accounting electives to meet the minimum requirement of 30 credit hours.

## Research Course

Students must complete one of the following:
ACCTNG 5402, Professional Accounting Research
ACCTNG 5406, Research and Professional Writing

## Seminar

Students must complete one of the following:
ACCTNG 5403, Seminar in Financial Accounting
ACCTNG 5412, Seminar in Controllership
ACCTNG 5435, Seminar in Auditing
ACCTNG 6441, Seminar in Taxation

## Accounting Electives.

Students must complete at least two additional courses from the following list. (Not all courses are offered each year.)
ACCTNG 5402, Professional Accounting Research
ACCTNG 5403, Seminar in Financial Accounting
ACCTNG 5406, Research and Professional Writing
ACCTNG 5408, Fraud Examination
ACCTNG 5412 Seminar in Controllership
ACCTNG 5435, Seminar in Auditing
ACCTNG 5436, Systems Auditing
ACCTNG 5441, Advanced Income Tax ACCTNG 5446, Advanced Topics in Taxation
ACCTNG 5451, Accounting and Auditing in Governmental and Not-for-Profit Entities
ACCTNG 5480, I nternational Accounting
ACCTNG 5490, Graduate I nternship in Accounting

## ACCTNG 5491, Contemporary Issues in Accounting <br> ACCTNG 5498, Graduate Seminar in Accounting ACCTNG 6441, Seminar in Taxation

NonAtcounting Courses. Students must complete at least three courses from other business disciplines.
(minimum: 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

## 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.

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I. Business & Research Foundation Requirement: 27 credit hours (9 courses)
Students are required to take:
I NFSYS 5800, Management Information Systems
LOG OM 5300, Statistical Analysis for Management Decisions
BUS AD 5900, Law, Ethics, and Business
ACCTNG 5400, Financial and Managerial Accounting
FI NANCE 6500, Financial Management
MGMT 5600, Organizational Behavior
MKTG 5700, Contemporary Marketing Concepts
LOG OM 5320, Production and Operations Management
BUS AD 7300, Statistical Modeling
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The first eight courses $5800,5300,5900,5400,6500,5600,5700,5320$ 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:

Students must complete the requirements for one of the emphasis areas.
Information Systems Emphasis
The Information Systems emphasis requirement includes 36 credit hours.
Students are required to take the following ten courses:
I NFSYS 6805, Applications of Programming for Business Solutions

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I NFSYS 6836, Telecommunications: Design and Management
I NFSYS 6840, Information Systems Analysis
I NFSYS 6845, Database Management Systems
BUS AD 7021, Qualitative Methods and Philosophical Foundations of Business Administration Research
I NFSYS 7890, IS Research Seminar
I NFSYS 7891, Quantitative Research Methods in IS
I NFSYS 7892, Doctoral Seminar in current Information Systems Topics
I NFSYS 7893, Special Topics in IS
I NFSYS 7894, Theoretical Foundations of Information Systems Research
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Students are required to take 6 credit hours (2 courses) (not included elsewhere) from the list of approved elective courses for the IS emphasis.

## 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
LOG OM 6350, Management Science Methods
LOG OM 7381, International Supply Chain Management
LOG OM 7390, Research Seminar in LSCM
LOG OM 7393, Special Topics in LSCM
MKTG 5770, Supply Chain Management
And at least one of the following:
LOG OM 6331, Logistics and Supply Chain Operations Modeling
LOG OM 6332, Logistics and Supply Chain Strategic Modeling
Students are required to take nine credit hours (three courses) (not included elsewhere) from the list of approved elective courses for the LSCM emphasis.

## I V. 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 Masters 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.

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.

Students must satisfy all Graduate School requirements.
The degree is awarded upon successful completion and defense of the Ph.D. dissertation. 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 four 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: ( 5 courses)
ACCTNG 5400, Financial and Managerial Accounting
MGMT 5600, Organizational Behavior and Administrative Processes
MKTG 5700, Contemporary Marketing Concepts
I NFSYS 5800, Management Information Systems
One of the following:
FI NANCE 6500, Financial Management
LOG OM 5320, Production and Operations Management

## Elective Course ( 1 course):

BUS AD 5100, Managerial Communication
BUS AD 5900, Law, Ethics and Business

* FI NANCE 6500, Financial Management
* LOG OM 5230, Production and Operations Management
* Cannot be used as an elective if used as a program requirement.

Graduate Certificate in Business Intelligence (pending CBHE approval)
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)
I NFSYS 6833, Decision Support Systems for Business Intelligence
I NFSYS 6849, Data Warehouse Design \& Implementation
I NFSYS 6851, Practicum in Business Intelligence
LOG OM 6345, Analytics and Data Mining
Electives (any two from either sub-track, 6 hours)
Analytics sub-track
ACCTNG 5400, Financial \& Managerial Accounting
ACCTNG 5401, Financial Reporting \& Analysis
FI NANCE 6521, Introduction to Derivatives
FI NANCE 6580, International Financial Management
LOG OM 5312, Advanced Statistical Methods for Management Decisions
LOG OM 5320, Production and Operations Management
LOG OM 5322, Lean Production
LOG OM 5354, Simulation for Managerial Decision Making
LOG OM 6330, Business Logistics Systems
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 7300, Statistical Modeling
MGMT 5625, Selected Topics in Human Resource Management
MKTG 5740, Marketing and Business Research
Systems Development sub-track

I NFSYS 6806, Object Oriented Programming
I NFSYS 6808, Web Applications For Business
I NFSYS 6834, Advanced Web Applications
I NFSYS 6837, Information Systems Architecture
I NFSYS 6838, Business Processes: Design, Management \& Integration
I NFSYS 6840, Information Systems Analysis
I NFSYS 6847, Financial And Project Management
I NFSYS 6850, Information Systems Design
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, Organizational Behavior and Administrative Processes
MGMT 5621, Managing Human Resources
MGMT 5622, Union Management Relations and Collective Bargaining
MGMT 5623, Compensation and Benefits
MGMT 5625, Selected Topics in Human Resource Management
LOG OM 5300, Statistical Analysis for Management Decisions
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.

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
LOG OM 6330, Business Logistics Systems
MKTG 5770, Supply Chain Management Strategy
Nine additional hours (generally 3 courses) from:
LOG OM 5326, Quality Management
LOG OM 5312, Advanced Statistical Methods for Management Decisions
LOG OM 5354, Simulation for Managerial Decision Making
LOG OM 5322, Lean Production
LOG OM 5381, International 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
I NFSYS 6835, IT- Enabled Business
I NFSYS 6833, Decision Support System
BUS AD 5198, Seminar in Business Administration*
BUS AD 5299, Individual Research*
*Subject to approval of the department chairperson of the LOM Area.
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
MKTG 5710, Consumer Motivation and Behavior
MKTG 5740, Marketing and Business Research
Marketing Management:
MKTG 5701, Marketing Planning and Strategy
MKTG 5720, Marketing Communications
MKTG 5730, Product Planning and Pricing
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.

# BULLETIN 

# College of Business Administration Course Descriptions Undergraduate 

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## UMSL Home

## College of Business Administration Home Page

All undergraduate courses are listed under the following categories: Accounting (ACCTNG), Business Administration (BUS AD), Finance (FINANCE), Information Systems (INFSYS), Logistics and Operations Management (LOG OM), Management (MGMT) and Marketing (MKTG).

The College of Business Administration uses the University course numbering system. A minimum grade of Cshall be required to meet the prerequisite requirement for any course. Prerequisites may be waived only by consent of both the instructor and the area coordinator. A minimum campus GPA of 2.0 is required for admittance to each upper division 3000 and 4000 level Business Administration course.

## Accounting Undergraduate

## ACCTNG 2400 Fundamentals of Financial Accounting (3)

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)

Prerequisites: MATH 1030 and BUS AD 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)

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)

Prerequisites: MATH 1030 and ACCTNG 3401; 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. 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)
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 UMSL. 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 I nformation Systems (3)

Prerequisites: A minimum 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)
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 UMSL. 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)

Prerequisites: MATH 1030 and either ACCTNG 3401 or FINANCE 3560; 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 UMSL. 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 and I.R.S. ruling, and a petition to the U.S. Tax Court.

ACCTNG 3451 Accounting for Governmental and Not-for-Profit Entities (3)
Prerequisites:A minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000level and above taken at UMSL.; also MATH 1030 and ACCTNG 3401. Principles of fund accounting and financial reporting for governmental and not for profit entities. This course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

## ACCTNG 3460 Accounting Career Strategies (3)

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 an elective 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. This course is graded on an S/U basis.

## ACCTNG 3490 Internship in Accounting (1-3)

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 UMSL, 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 Administrative Problems-Accounting: Volunteer Income Tax Assistance (VITA) Program (1-3)

Prerequisites.; also MATH 1030 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, 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 (3)

Prerequisites: 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.

## ACCTNG 3499 Independent Study in Accounting (1-3)

Prerequisites: Minimum campus GPA of 2.0 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 and approval by the supervising professor and the department chair.

## ACCTNG 4401 Financial Accounting and Reporting III (3)

Prerequisites: MATH 1030 and ACCTNG 3402; 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 UMSL. Accounting theory and practice related to topics such as income taxes, pensions, owner's 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)

Prerequisites: MATH 1030 and ACCTNG 3402; 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 UMSL. 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 case problem solving skills, communication skills, and interpersonal skills.

## ACCTNG 4405 Professional Accounting Research (3)

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 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 is the focal point of the course.

## ACCTNG 4435 Auditing (3)

Prerequisites: MATH 1105, ACCTNG 3402 and 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 UMSL. 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: Tax Research and Business Taxation (3)

Prerequisites: ACCTNG 3441; with a grade of $B$ or above 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. Uses internet-based tax research service to conduct research that resolves tax law questions. Also focuses on federal income taxation of corporations, S corporations, partnerships, LLCs and their owners.

## Business Administration Undergraduate

BUS AD 1000 Introduction to Business (3)
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)
This course introduces students to the American legal system and the basic issues every individual must deal with in our society. This 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)

Prerequisites: Vary with topic; contact the College 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)
Prerequisite: 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)

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Business Administration electives and have consent of supervising instructor and Associate Dean. A Business College 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 writing 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)
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)
Prerequisite: BUS AD 2900 or consent of instructor. Introduction to the laws of contracts, sales, secured transactions, bankruptcy, and other selected topics.

BUS AD 3901 Business Law: Negotiable Instruments, Business Organizations, Property (3) Prerequisite: BUS AD 2900 or consent of instructor. Introduction to the laws of negotiable instruments, the principal-agent relationship, partnerships, corporations, property, and other selected topics.

BUS AD 3990 Internship in Business Law (1-3)
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 hours 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)

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)

Prerequisites: To be determined each time the course is offered and to include a 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.

## Finance Undergraduate

## FI NANCE 1590 Personal Finance for Nonbusiness Majors (3)

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.

## FI NANCE 3500 Financial Management (3)

Prerequisites: ECON 1002, MATH 1105, and ACCTNG 2400, and a 2.0 campus 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.

## FI NANCE 3501 Financial Policies (3)

Prerequisites: FINANCE 3500 and a 2.0 campus 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.

## FI NANCE 3502 Treasury Management (3)

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.

FI NANCE 3503 Computer Applications in Finance (3)
Prerequisites: INFSYS 1800 , FINANCE 3500 , one 300 -level finance course, and a 2.0 campus GPA. Financial problem solving and applications on the microcomputer. A project-oriented course with an emphasis on microsed finance projects: present value/IRR analysis, duration, immunization, portfolio optimization, leasing, capital budgeting, financial forecasting, options, and futures.

FI NANCE 3520 Investments (3)
Prerequisites: FINANCE 3500 and a 2.0 campus GPA. Financial analysis of debt and equity instruments available on organized exchanges and in less tangible over-the-counter markets. Techniques of such analysis are presented in context with economic and management circumstances within the company, industry, and economy.

## FI NANCE 3521 Financial Engineering: Applying Derivatives (3)

Prerequisite: 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 taken Investments (FINANCE 3520) prior to enrolling in FINANCE 3521.

## FI NANCE 3523 Fixed Income Analysis (3)

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 obligations, 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.

## FI NANCE 3525 Practicum In Investments (1)

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.

FI NANCE 3540 I ntroduction to Financial Institutions and Financial Markets (3)
Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This 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.

FI NANCE 3541 Commercial Bank Management (3)
Prerequisites: ECON 1002, FINANCE 3500, and a 2.0 campus 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.

FI NANCE 3542 Principles of Real Estate (3)
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.

FI NANCE 3560 Practice of Personal Financial Planning (3)
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.

FI NANCE 3561 Principles of Insurance (3)
Prerequisites: FINANCE 3500 and 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.

FI NANCE 3562 Life I nsurance (3)
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.

FI NANCE 3563 Retirement Planning and Employee Benefits (3)
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.

FI NANCE 3564 Estate Planning and Trusts (3)
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.

FI NANCE 3565 Seminar in Financial Planning (3)
Prerequisites: ACCTNG 3441, FINANCE 3520, 3560, 3561, 3563, and 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.

FI NANCE 3580 International Finance (3)
Same as INTBUS 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. A study of international financial markets, instruments, portfolio strategies and international financial management. Topics will include international risks, foreign diversification, foreign investment, foreign exchange determination and international working capital management issues. Derivatives are explored as instruments to hedge foreign exchange risk exposure, and special markets are evaluated in the international corporate/investments setting. Cases and/or outside readings may be used to emphasize inter-related issues.

FI NANCE 3581 Business in China (3)
Prerequisites: A minimum campus GPA of 2.0 and junior standing. 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.

FI NANCE 3582 I nternational I nvestment (3)
Same as INTBUS 3582. Prerequisite: FINANCE 3500. This course explores the concepts of investing and hedging in international markets. Topics include equity and bond markets, global 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.

FI NANCE 3590 Practicum in Finance (1-3)
Prerequisites: 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.

FI NANCE 3598 Seminar in Finance (3)
Prerequisites: 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.

FI NANCE 3599 Independent Study in Finance (1-3)
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.

## I nformation Systems Undergraduate

## I NFSYS 1800 Computers and I nformation Systems (3) [MI]

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, presentations 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 BUS AD 1800.

## I NFSYS 2800 Information Systems Concepts and Applications (3)

Prerequisite: BUS AD 1800 or satisfactory performance on proficiency exam. This course covers concepts of information systems as they relate to business functions, including web page design and e-commerce, telecommunications, system 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.

I NFSYS 3806 Managerial Applications Of Object-Oriented Programming I (3)
Prerequisites: (INFSYS 1800 or CMP SCI 1220 or 1250 and a 2.0 campus 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.

## I NFSYS 3807 Legacy Systems (3)

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 files.

## I NFSYS 3810 Information Systems Analysis (3)

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 values 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 (ERP) systems, Supply Chain systems, and BPO will be discussed.

## I NFSYS 3815 Object Oriented Applications in Business (3)

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.

I NFSYS 3816 Managerial Applications of Object-Oriented Programming II (3)
Prerequisites: INFSYS 3806 and a minimum campus 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 server-based databases.

I NFSYS 3841 Enterprise I nformation Systems (3)
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.

## I NFSYS 3842 Management of Telecommunications (3)

Prerequisites: INFSYS 1800 and a 2.0 campus 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/benefit analyses.

## I NFSYS 3843 Decision Support Systems for Business I ntelligence (3)

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.

## I NFSYS 3844 Developing Business Applications in NET (3)

Prerequisites: INFSYS 3805 or INFSYS 3806 and a minimum campus GPA of 2.0. Methods for end user development of applications in a business environment are presented. An end-user programming language (for example, Visual Basic) is used for development of prototypical applications. Case studies and/or programming problems are used to illustrate technology available to end-users for creating software in a windows-based system.

I NFSYS 3845 Database Management Systems (3)
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.

## I NFSYS 3846 e-Commerce (3)

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 covered 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.

## I NFSYS 3847 Web Design (3)

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.

## I NFSYS 3848 Security and I nformation Systems (3)

Prerequisites: A minimum campus GPA of 2.0 and BUS AD 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.

I NFSYS 3890 Internship in Management Information System (1-3)
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 marketing instructor and Area Coordinator. A Business college of GPA of at least 2.5 is also required. Students are employed in the field of management information systems where they apply for the knowledge and skills learned in the classroom. Professional development and 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 marketing electives required for a management information systems emphasis.

## I NFSYS 3898 Seminar in Information Systems Management (3)

Prerequisites: 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 information systems.

I NFSYS 3899 Independent Study in I nformation Systems (1-3)
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.

## I NFSYS 4850 I nformation Systems Design (3)

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.

## International Business

## I NTBUS 3280 The Law of I nternational Business Transactions (3)

Prerequisite: BUS AD 2900 or consent of 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 operations of multinational enterprises will be included. The role of national government supranational governmental organizations and non-governmental organizations in forming and administering the international legal environment will be studied

I NTBUS 3281 Business in China (3)
Prerequisites: A minimum campus GPA of 2.0 and junior standing. 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.

I NTBUS 3282 Managing the Global Workforce (3)
Prerequisites: A minimum 2.0 campus GPA and 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 organization 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.

## I NTBUS 3283 International Business and Society (3)

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 predeparture 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.

## I NTBUS 3284 The J apanese Management System (3)

Prerequisites: MGMT 3600 and a 2.0 minimum campus GPA. 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 J apan's economic growth, government policies, industrial and financial structure of J apanese business, labor-management relations, internal management practices, international competitive strategies, managing U.S. subsidiaries in Japan, penetrating the J apanese market, Japanese investment in the U.S.A., and current issues in U.S.-J apan economic relations.

## I NTBUS 3285 Role of the Global Corporation (3)

Prerequisites: A minimum campus GPA of 2.0 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.

I NTBUS 3286 International Business Ethics (3)
Same as PHIL 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.

## I NTBUS 3289 Practicum in International Business (3)

Prerequisites: At least one international business course, a 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.

## I NTBUS 3290 Internship for I nternational Business (3-6)

Prerequisites: ECON 1001 and 1002, ACCTNG 2400 and ACCTNG 2410, an additional 12 hours in BA, concurrent enrollment in a UM overseas program; also a 2.0 minimum campus GPA. This 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 an UMSL 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.

## I NTBUS 3299 I ndependent Study in I nternational Business (1-3)

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.

## I NTBUS 3580 International Finance (3)

Same as FINANCE 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. A study of international financial markets, instruments, portfolio strategies and international financial management. Topics will include international risks, foreign diversification, foreign investment, foreign exchange determination and international working capital management issues. Derivatives are explored as instruments to hedge foreign exchange risk exposure, and special markets are evaluated in the international corporate/investments setting. Cases and/or outside readings may be used to emphasize inter-related issues.

## I NTBUS 3582 International Investment (3)

Same as FINANCE 3582. Prerequisite: FINANCE 3500. This course explores the concepts of investing and hedging in international markets. Topics include equity and bond markets, global 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.

## I NTBUS 3680 I nternational Management (3)

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.

## I NTBUS 3780 I nternational Marketing (3)

Same as MKTG 3780. Prerequisites: MKTG 3700 and a 2.0 campus 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.

## I NTBUS 3787 Marketing in the European Union (3)

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.

## I NTBUS 4280 I nternational Business Experience (0)

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.

## I NTBUS 4281 Entrepreneurship in the Global Environment (3)

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.

I NTBUS 4289 I nternational Strategic Management (3)
Prerequisites: A minimum 2.0 campus GPA and MGMT 3682, MKTG 3780and 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.

## I NTBUS 4381 International Logistics and Operations Management (3)

Same as LOGOM 4381. Prerequisites: A minimum campus GPA of 2.0 and 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.

## Logistics and Operations Management Undergraduate

## LOG OM 3300 Business Statistics (3)

Prerequisites: MATH 1100 and 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)

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 3390 Internship in Logistics and Operations Management (1-3)

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 towards the minimum credit hours for the LOM emphasis.

## LOG OM 3398 Seminar in Logistics and Operations Management (3)

Prerequisites: 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.

LOG OM 3399 Independent Study in Logistics \& Operations Management (1-3)
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 fulltime logistics and operations management faculty member.

## LOG OM 4312 Business Forecasting (3)

Prerequisites: A minimum campus GPA of 2.0 and either LOG OM 3220 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)
Prerequisites: A minimum campus GPA of 2.0 and BUS AD 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)
Prerequisites: A minimum campus GPA of 2.0 and 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)
Prerequisites: A minimum campus GPA of 2.0 and 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 service industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management, service quality, staffing, and personnel scheduling.

LOG OM 4326 Quality Assurance in Business (3)
Prerequisites: A minimum campus GPA of 2.0 and 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)
Prerequisites: A minimum campus GPA of 2.0 and 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 4350 Management Science Methods (3)
Prerequisites: A minimum campus GPA of 2.0 and either 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)

Prerequisites: A minimum campus GPA of 2.0 and 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)

Same as INTBUS 4381. Prerequisites: A minimum campus GPA of 2.0 and 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 (1-3) Seminar in Logistics and Operations Management

Prerequisites: LOM 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.

## Management Undergraduate

MGMT 3600 Management and Organizational Behavior (3)
Same as SOC 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 at classic and current perspectives are provided.

## MGMT 3611 Advanced Management and Organizational Behavior (3)

Prerequisites: MGMT 3600 and a 2.0 campus GPA. Building upon 3600, this 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)

Prerequisites: A minimum campus GPA of 2.0 and J unior Standing. This course focuses on career management. Topics include job search, interviews, resumes and cover letters, presentation skills, business etiquette, entry strategies, and career alternative.

## MGMT 3621 Human Resource Management (3)

Prerequisites: MATH 1105 MGMT 3600 and a 2.0 campus GPA. In-depth examination of selected human resources 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)
Prerequisites: MGMT 3600 and a 2.0 campus 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 materials are used to supplement text and lecture.

MGMT 3623 Industrial and Organizational Psychology (3)
Same as PSYCH 3318. Prerequisites: 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)

Prerequisites: A minimum 2.0 campus GPA. 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 Organizations (3)
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 effective leadership in organizations.

## MGMT 3680 I nternational Management (3)

Same as INTBUS 3680. Prerequisites: A minimum 2.0 campus GPA and 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 3682 Managing the Global Workforce (3)
Prerequisites: A minimum 2.0 campus GPA and 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.

## MGMT 3684 The J apanese Management System (3)

Prerequisites: MGMT 3600 and a 2.0 minimum campus GPA. 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 J apanese 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. -J apan economic relations.

## MGMT 3685 Role of the Global Corporation (3)

Prerequisites: A minimum campus GPA of 2.0 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.

## MGMT 3689 International Business and Society (3)

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 predeparture 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.

## MGMT 3690 I nternship in Management (1-3)

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 at least 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 3698 Seminar in Management (3)

Prerequisites: 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.

MGMT 3699 Independent Study in Management (1-3)
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)

Prerequisites: Senior standing and FINANCE 3500, MKTG 3700, MGMT 3600, a minimum campus GPA of 2.0; and concurrent enrollment in BUS AD 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)

Prerequisite: Concurrent enrollment in MGMT 4219. 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)

Prerequisites: BUS AD 2900, FINANCE 3500, MKTG 3700, MGMT 3600, and a 2.0 campus 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.

## Marketing Undergraduate

## MKTG 3700 Basic Marketing (3)

Prerequisites: ECON 1001, junior standing, and a 2.0 campus 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, and societal implications of such policies.

## MKTG 3710 Consumer Behavior (3)

Prerequisites: MKTG 3700 and a minimum campus 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)

Prerequisites: MKTG 3700 and a 2.0 campus 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 promotional, packaging, and selling strategy, and their relationships in the promotion process.

## MKTG 3740 Marketing Research (3)

Prerequisites: INFSYS 1800, MKTG 3700, LOG OM 3300 and a 2.0 campus 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)
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 and 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 customers' problems.

## MKTG 3760 Business-to-Business Marketing (3)

Prerequisites: Senior Standing, MATH 1105, MKTG 3700 and a 2.0 campus 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)

Prerequisites: A minimum campus GPA of 2.0; also J unior 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)

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 within 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 3780 International Marketing (3)

Same as INTBUS 3780. Prerequisites: MKTG 3700 and a 2.0 campus 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)

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)

Same as INTBUS 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)

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 of GPA of at least 2.5 is also required. Students are employed in the field of Marketing where they apply for 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. MKTG 3790 may be counted toward the minimum credit hours of marketing electives required for a marketing emphasis.

## MKTG 3798 Seminar in Marketing (3)

Prerequisites: 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.

## MKTG 3799 Independent Study in Marketing (1-3)

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)

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.

# BULLETIN 

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## Accounting

## ACCTNG 5400 Financial and Managerial Accounting (3)

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 (Financial Reporting Analysis).

## ACCTNG 5401 Financial Reporting \& Analysis (3)

Prerequisite: 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)

Prerequisite: 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 Seminar in Financial Accounting (3)

Prerequisite: 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)
Prerequisite: 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)

Prerequisite: 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)
Prerequisite: 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)

Prerequisite: 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)

Prerequisites: 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 uses 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 Seminar in Controllership (3)

Prerequisites: ACCTNG 3411 or ACCTNG 5411; a minimum GPA of 2.3 in all accounting courses at the 3000level and above taken at UMSL. A study of advanced managerial accounting techniques useful in facilitating the planning and control process in modern organizations. 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)

Prerequisite: MATH 1030, INFSYS 1800; 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 Seminar in Auditing (3)

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)

Prerequisites: ACCTNG 5400, I NFSYS 5800, or consent of instructor. Study of techniques involved in the control and audit of computer-based accounting information systems. Emphasis on the review of internal controls at operational and administrative levels and on computer-assisted audit techniques.

## ACCTNG 5446 Advanced Topics In Taxation (3)

Prerequisite: BUS AD 3441. Addresses advanced topics in taxation selected by the instructor.

## ACCTNG 5447 Taxation of Individuals and Businesses (3)

Prerequisite: 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 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 5480 International Accounting (3)

Same as INTBUS 5480. Prerequisite: 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 I nternship in Accounting (1-3)

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 graduatelevel 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)
Prerequisite: ACCTNG 5405 (or ACCTNG 3402). The course includes an analysis of contemporary
developments in the practice of accountancy or theories underlying it. This seminar may address topics in accountancy in any area of specialization (financial, cost/managerial, tax, auditing, governmental/FNP) 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)

Prerequisite: 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)
Prerequisites: Consent of instructor, department chair and graduate director; a minimum 3.0 graduate GPA; a minimum GPA of 3.0 is 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 Seminar in Taxation (3)
Prerequisites: 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 Graduate

BUS AD 5000 Economics for Managers (3)
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)
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)

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)

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)

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)

Prerequisites: Consent of instructor and graduate director. Special individual research topics under the guidance of a specific professor.

BUS AD 5900 Law, Ethics, and Business (3)
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 5450 Governmental Budgeting and Financial Control (3)

Same as P P ADM 6180. Prerequisite: Completion of the MPPA Computer Proficiency Exam OR demonstrated proficiency with spreadsheets. 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 6990 Strategy Formulation and I mplementation (3)

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)

Prerequisite: Must have Ph.D. program director or department chairperson approval. Investigation of an advanced nature culminating in preparation for comprehensive examinations and/or development of dissertation proposal. The course may be repeated.

## BUS AD 7002 Dissertation Research (1-12)

Prerequisite: Must have Ph.D. program director or department chairperson approval. Investigation of an advanced nature culminating in the preparation of a doctoral dissertation. The course may be repeated.

## BUS AD 7021 Qualitative Methods and Philosophical Foundations of Business Administration Research (3)

Prerequisite: 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)
Prerequisites: LOG OM 5300; Admittance into the Ph.D. program. Study of the 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, the general linear model, MANOVA, structural equation modeling, and time series modeling.

## Finance Graduate

FI NANCE 5599 Individual Research in Finance (1-3)
Prerequisites: Consent of instructor and graduate director. Special individual research topics in Finance under the guidance of a specific professor.

FI NANCE 6500 Financial Management (3)
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.

FI NANCE 6501 Advanced Financial Management (3)
Prerequisites: 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 the instructor is required.

FI NANCE 6520 Security Analysis (3)
Prerequisites: 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.

FI NANCE 6521 Financial Forensics: The Science of Derivatives (3)
Prerequisite: 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.

FI NANCE 6540 Financial Institutions and Financial Markets (3)
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.

## FI NANCE 6541 Commercial Bank Management (3)

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.
FI NANCE 6542 Real Estate (3)
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.

FI NANCE 6580 International Finance, Investment, and Commercial Relations (3)
Same as INTBUS 6580. Prerequisite: FINANCE 6500. This course provides students with a working knowledge of the international environment relating to the financial and securities markets along with the impact on corporate operations. International risk and tools to control risk are studied in a practical environment that may include cases. Individual research may be required to reinforce the topics studied in the classroom. Class discussion of current issues and related readings are encouraged.

FI NANCE 6581 Seminar in International Investments (3)
Same as INTBUS 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 completion if a comprehensive project report. A prior investments course is recommended but not required.

FI NANCE 6590 Seminar in Finance (3)
Prerequisite: 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.

## FI NANCE 6591 Finance I nternship (1-3)

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 department chairperson. Student 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 report at the end of the project.

## Information Systems Graduate

## I NFSYS 5800 Management I nformation Systems (3)

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.

## I NFSYS 5890 I nternship in I nformation Systems (3)

The internship will be a supervised field experience in a US-based business/organization or a US-based international business/organization. Students will be employed off-campus for a 10-16 week period on projects directed by host organization supervisors in consultation with a UM-St. Louis Information Systems faculty member. The project requires students to apply IS concepts to a real-world problem. The project does not duplicate, but builds upon material in the IS curriculum. A professional written report will be required.

## I NFSYS 5899 Individual Research in Information Systems (1-3)

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Information Systems under the guidance of a specific professor.

## I NFSYS 6805 Applications of Programming for Business Solutions (3)

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.

## I NFSYS 6808 Internet Programming for Business (3)

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.

## I NFSYS 6833 Decision Support Systems for Business I ntelligence (3)

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.

## I NFSYS 6835 IT- Enabled Business (3)

Prerequisite: INFSYS 5800. IT-Enables 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.

## I NFSYS 6836 Telecommunications: Design and Management (3)

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.

## I NFSYS 6837 Information Systems Architecture (3)

Prerequisite: INFSYS 6836. This course explores a wide range of topics necessary for understanding \& 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.

## I NFSYS 6838 Business Process Design, Management \& I ntegration (3)

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 and 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.

## I NFSYS 6840 Information Systems Analysis (3)

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.

## I NFSYS 6845 Database Management Systems (3)

Prerequisite: 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 and applications.

## I NFSYS 6846 Management of Global Sourcing (3)

Same as INTBUS 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.

## I NFSYS 6847 Financial and Project Management (3)

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.

## I NFSYS 6848 Know ledge Management and Business Intelligence (3)

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

## I NFSYS 6849 Data Warehouse Design and Implementation (3)

Prerequisites: INF SYS 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.

I NFSYS 6850 Information Systems Design (3)
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 realworld environment. Advanced design concepts are presented to support the students in their project work

I NFSYS 6851 Practicum in Business Intelligence (3)
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.

## I NFSYS 6881 Management of Transnational I nformation Systems (3)

Same as INTBUS 6881. Prerequisite: INFSYS 5800 (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.

## I NFSYS 6891 Seminar in Management Information Systems (3)

Prerequisite: 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

## I NFSYS 7890 IS Research Seminar (3)

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.

## I NFSYS 7891 Quantitative Research Methods in IS (3)

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.

## I NFSYS 7892 Doctoral Seminar in Current Information Systems Topics (3)

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.

## I NFSYS 7893 Special Topics in IS (3)

Prerequisites: Consent of instructor; 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.

## I NFSYS 7894 Theoretical Foundations of I nformation Systems Research (3)

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 Graduate

## I NTBUS 5289 International Business Strategies (3)

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.

I NTBUS 5290 Internship in International Business (3)
Prerequisite: 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.

## I NTBUS 5480 I nternational Accounting (3)

Same as ACCTNG 5480. Prerequisite: 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.

## I NTBUS 6580 International Finance, I nvestment, and Commercial Relations (3)

Same as FINANCE 6580. Prerequisite: FINANCE 6500. This course provides students with a working knowledge of the international environment relating to the financial and securities markets along with the impact on corporate operations. International risk and tools to control risk are studied in a practical environment that may include cases. Individual research may be required to reinforce the topics studied in the classroom. Class discussion of current issues and related readings are encouraged.

I NTBUS 6581 Seminar in I nternational I nvestments (3)
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 completion if a comprehensive project report. A prior investments course is recommended but not required.

I NTBUS 6846 Management of Global Sourcing (3)
Same as INYSYS 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.
I NTBUS 6881 Management of Transnational I nformation Systems (3)
Same as INFSYS 6881. Prerequisite: INFSYS 5800 (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.

## I NTBUS 5381 International Logistics and Operations Management (3)

Same as LOGOM 5381.Prerequisite: 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.

## I NTBUS 5780 Seminar in I nternational Marketing (3)

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.

## Logistics and Operations Management Graduate

## LOG OM 5300 Statistical Analysis for Management Decisions (3)

Prerequisites: INFSYS 5800 (may be taken concurrently) and ECON 4105 with a minimum grade of a 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)

Prerequisite: 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)
Prerequisite: 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)

Prerequisite: 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)

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 personal scheduling.

## LOG OM 5326 Quality Management (3)

Same as MATH 5370. Prerequisite: LOG OM 5300 or Stat 4200 or consent of instructor. An applied course on total quality management. Quality improvement approaches are presented and the managerial implications and responsibilities in implementing these approached 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, Baldridge 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)

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 5354 Simulation for Managerial Decision Making (3)

Prerequisite: LOG OM 5320. Introduction to simulation as a managerial decision-making aid. Application of simulation to a number of management science-oriented problems. The course introduces and requires use of a simulation language.

## LOG OM 5381 International Logistics and Operations Management (3)

Same as INTBUS 5381. Prerequisite: 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)
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)
Prerequisite: 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)
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 consolidations, 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)

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 and analyses and consulting work.

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)

Prerequisite: 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)

Prerequisite: 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)

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)

Prerequisites: LOG OM 5320; Admittance to 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 to other activities of international firms.

LOG OM 7390 Research Seminar in LSCM (3)
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)

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 Graduate

## MGMT 5600 Organizational Behavior and Administrative Processes (3)

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)

Prerequisite: MGMT 5600. An in-depth 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)

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)

Prerequisite: BUS AD 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)
Prerequisite: MGMT 5600. In-depth examination of selected 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)

Prerequisites: 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)

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)

Prerequisite: 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)
Prerequisites: Consent of instructor and graduate director. Special individual research topics in Management under the guidance of a specific professor.

## Marketing Graduate

## MKTG 5700 Contemporary Marketing Concepts (3)

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)

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 campus 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)

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, and 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)

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 5740 Marketing and Business Research (3)

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)

Prerequisite: Graduate standing or consent of instructor. This 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 (3)

Prerequisite: Consent of instructor. This 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)

Prerequisite: Graduate standing or consent of instructor. 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 lecturers that comment on aspects of transportation. UMSL students concentrate on the business aspects of transportation.

MKTG 5780 Seminar in I nternational Marketing (3)
Same as INTBUS 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)

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 department chairperson. 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)
Prerequisite: 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)
Prerequisites: Consent of instructor and graduate director. Special individual research topics in Marketing under the guidance of a specific professor.

# College of Education 

Counseling and Family Therapy | Educational Leadership and Policy Studies |
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## UMSL Home

## College of Education Home Page

## Accreditation

The University of Missouri St. Louis, College of Education, is accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Missouri Department of Elementary and Secondary Education (DESE) for the preparation of early childhood, elementary, special education, physical education, secondary educators, administrators, and counselors.

## 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 (HI GHERED)
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, early childhood 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, social studies, and speech/theater. 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 creates learning experiences that make these aspects of subject matter meaningful for students.
- Understand how students learn and develop, and provides learning opportunities that support the intellectual, social, and personal development of all students.
- Understand how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.
- Recognize the importance of long-range planning curriculum development and develops, implements and evaluates 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 has adequate technological skills to create meaningful learning opportunities for all students.


## General Education Requirements

Students in the College of Education must meet university and departmental general education requirements 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).

## 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 also seeking teacher certification must also be admitted to the Teacher Education Program.

## Application and Admission to the Teacher Education Program

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 Teacher Certification and Advising Office (TC \& A). Eligibility is based upon fulfillment of the following requirements:

- Submission of qualifying scores on C-BASE in areas of English, writing, mathematics, science and social studies. Students should consult the Teacher Certification \& Advising Office - College of Education, for test descriptions, cost, required scores, dates of administration, retest policies, etc. Acceptable C BASE scores are required in addition to documented ACT or SAT scores. (Students who have an earned bachelor's degree are not required to pass the CBASE test. Graduates of the general studies program at UMSL, however, must take the C BASE).
- Documented scores of either the ACT Composite or the SAT (verbal plus math)*.
- Completion of 60 hours of college or university courses (at UMSL or another accredited school).
- A grade point average of 2.5 or higher.
- Completion of level one courses, or the equivalent, with a grade of C or better.
- Approved results of criminal record check and child abuse/neglect screening.


## General Information

It is important that students meet with an academic advisor in the Teacher Certification and Advising Office once each semester. Students should contact the office at 314-516-5937 to make an advising appointment.

## I nternship/ Student Teaching Semesters

All teacher certification program students, except for those enrolled in music education, participate in a year long internship/student teaching experience. Students complete one electronic application two semsters prior to the student teaching experience for both the internship and student teaching semesters. The Professional Internship is a three credit hour course for all programs except Physical Education. The PE internship is a two
credit hour course. All internships are taken the semester before student teaching and involving one full day each week at the school site. During the following student teaching semester, normally located at the same internship school, students attend their site full time, five days per week. Student teaching is a 12 hour course.

## Application to Internship/ Student Teaching Program

## Deadlines for the Formal Application may be obtained in the Teacher Certification \& Advising office.

* Check 'My Gateway' and the student teaching bulletin board in Marillac Hall for exact date.

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 2.5 or above by the semester prior to the semester in which students plan to student teach. The 2.5 cumulative grade point average must be maintained in order to graduate with a B.S. in education degree and/or be certified to teach in the state of Missouri.
- Grade point average of 2.5 in the teaching field (secondary education students only).
- A grade of C or higher in all professional education courses so designated. Lists of these courses available in the TC \& A office and from advisers.
- Documented SAT or ACT score.
- Completion of TB screening, Missouri Care Registry check.
- Undergraduate students are required to have passed all five sections of the CBase Test.
- Completion of TB screening, police, and child abuse checks.

The student teaching experience in the early childhood, music, physical education, and special education certification programs provides opportunities in a variety of settings. Students will be expected to student teach on a full-day basis for 14 -weeks during an entire semester. The student teaching experience must be completed in residence. Secondary student teaching in science education, mathematics education, and foreign language education is offered during the winter semester only.

For further information regarding requirements and certification, contact the Teaching Certification and Advising Office (TC \& A) at 155 Marillac Hall or the College of Education Teacher Certification and Advising Home Page.

## 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 TC \& A Office when they apply for admission to internship/student teaching or during the semester before the one in which they expect to finish degree requirements. See information below on the on PRAXIS examination.

The College of Education requires a background check, current within one year, for every UMSL student in the teacher education program. Please note that students applying for certification are responsible for a more thorough fingerprint background check as required by Missouri State Law. All background check information will be available to students upon their request.

## Bachelor of Educational Studies (B.E.S.)

Candidates should consult the TC \& A Office, 155 Marillac Hall or (314) 516-5397 for more information. This degree offers two areas of study: Early Childhood and Professional Studies and does not qualify 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 Praxis/National Teacher's Examination to meet graduation and/or certification requirements. This exam should be taken during the semester immediately prior to student teaching.

## 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: Designing Instruction, 3 credits (includes 14 clock hours of field experience)
TCH ED 5311: Educational Foundations, 4 credits (includes 10 clock hours of field experience)
ED PSY 6109: Learning and Development in Secondary School Settings, 4 credits (includes 8 clock hours of
field experience)
*TCH ED 5312: Differentiated Instruction, 4 credit hours (includes 12 clock hours of field experience)
SEC ED 4989: Secondary Education Professional Internship, 3 credits (includes 84 clock hours of field experience)
SEC ED 4990: Student Teaching, 12 credits (full days in a school for one semester)
Students seeking certification via this program must meet with the Teaching \& Learning Post Baccalaureate Advisor and secondary education faculty members in the content (teaching) area to plan specific programs and review requirements. Students may contact the advisor at 314-516-5937.

## 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

Courses are available for areas of specialization within the M.Ed. programs, including educational technology, physical education, educational psychology, and the various secondary school subject areas.

Ed.S. degree programs are available in school psychology and educational administration.
Programs leading to the Ed.D. degree are offered in four broad interdisciplinary emphasis areas: Educational Administration; Adult \& Higher Education; Teaching-Learning Processes; and Counselor Education. 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.

## 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 32 or 33 except that the elementary, secondary, and community counseling emphases require 48 hours. The school has adopted a flexible policy on exit requirements, which are determined divisionally.

## Advisement and Program Planning

Upon acceptance, each student can contact the Office of Graduate Education for an appointment with the graduate advisor for a first semester course of study (314) 516-5483 or NAshford@umsl.edu). After acceptance, each student completes an adviser form, sent by the College of Education's Office of Graduate Education, 123 SCCB. A faculty adviser is then appointed who counsels the student in registration and program planning. A program for master's degree form must be submitted for approval during the first half of the student's program. This form includes all course work in the program and the exit requirement. Once approved, the degree program may be changed only by petition.

Students working toward teacher and/or school service personnel certification as graduate students should complete state certification forms in the Teacher Certification and Advising Office, 155 Marillac Hall, 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, GRE scores, 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 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
- 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 or recommendation two weeks before completing the online application. Consideration of applications cannot be undertaken until all materials are available.

## Degree Requirements

1. Foundations, 12 hours from: philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction and supervision.
2. Research Methods, 12 hours:

Students in the Educational Administration, Adult and Higher Education, and Teaching-Learning Processes options should complete the following or equivalent in order:

ED REM 6735: Statistical Analysis for Educational Research (pre-requisite)
ED REM 6750: Advanced Research Design in Education
Plus any two 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 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.

Students in the Counselor Education option should complete the following sequence:
ED REM 6718: Psycho-Education Assessment II
ED REM 7771: Quantitative Research Methods I
ED REM 7781: Qualitative Research Methods I
One of the following:
ED REM 7772: Quantitative Research Methods II
ED REM 7782: Qualitative Methods in Educational Research II
3. Common doctoral seminars, 6 hours

EDUC 7050, The Research Process I: Framing Research Questions with the Education Literature (or for student in Counselor Education, CNS ED 7020, Seminar in Counseling Research may be taken in the place of EDUC 7050)
EDUC 7950, The Research Process II: Developing and Refining Education Research Proposals
4. Major Specialization, 21-39 hours:

Educational Administration Option
Educational Administration (ED ADM) or other courses selected in consultation with the advisory committee, including internship (3-9 hours)

## Adult and Higher Education Option

Adult Education (ADULT ED) or Higher Education (HIGHERED) or other courses selected in consultation with the advisory committee, including internship (3-9 hours)

## Teaching-Learning Processes Option

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)

Counselor Education Option(30 hours)
CNS ED 6410, Advanced Career Development
CNS ED 6600, Theories and Techniques of Counseling Children and Adolescents
CNS ED 7000, Advanced Theories and Foundations of Counseling and Family Therapy
CNS ED 7010, Advanced Multicultural Counseling
CNS ED 7030, Counselor Education and Supervision
CNS ED 7035, Counselor Education \& Supervision Practicum
CNS ED 7400, Advanced Topics in School Counseling Leadership
CNS ED 7770, Doctoral Practicum
CNS ED 7780, Doctoral Internship (6 hours)
5. Minor Specialization, 12-18 hours

A secondary area of expertise identified in consultation with the advisory committee
6. Dissertation, 12 hours

Total: minimum 90 hours, postbaccalaureate

## Doctor of Philosophy Degree

The Ph.D. degree in education, offered in cooperation with the School of Education at the University of Missouri- Kansas City and the College of Education at the University of Missouri-Columbia, 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 hours:

Philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction, and supervision.

## 2. Research Methods 15-18 hours:

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 Educational Research (Pre-requisite)
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 Educational Research II
3. Emphasis Area (Primary Discipline) courses, 27-33 hours, with at least 16 in residence, in one of the following areas:

## A. Teaching-Learning Processes Minimum 15 hours in cognate area Minimum 3 hours in curriculum or instruction Minimum 3 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 hour 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 adviser 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, Community Counseling Practicum (or CNS ED 6270, School Counseling Practicum)
CNS ED 6380, Community Counseling Field Experience ( 6 hours) (or CNS ED 6280, School
Counseling Field Experience I and CNS ED 6285 School Counseling Field Experience II
CNS ED 6400, Career Information and Development
CNS ED 6410, Advanced Career Development
CNS ED 7000, Advanced Theories of Counseling and Family Therapy
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 (3 hours)
Additionally, all students should complete CNS ED 7780, Doctoral Internship (6 hrs) as a research internship; and a secondary discipline in ED PSY consisting of at least ED PSY 6310, Psychology of Learning Processes, ED PSY 6113, Personality Development and Adjustment, and ED REM 6718, Psycho-Educational Assessment II

## 4. Related (Secondary Discipline) Courses, 12-15 hours, in education or another department.

## 5. Required Exit course, 3 hours

EDUC 7950, The Research Process II: Developing and Refining Education Research Proposals

## 6. Research Internship, 6-9 hours

## 7. Dissertation, 12 hours

## Total: Minimum 90 hours, postbaccalaureate

## Support Services

The College of Education maintains a number of offices and centers to directly assist students, faculty, and people in the metropolitan area and to support its instructional, research, and service activities.

## Teacher Certification \& Advising Office- - 155 Marillac

This office provides advising services for teacher education undergraduate and certification students. The office co-ordinates the teacher education clinical experiences, directs the student teacher program and submits documents for state teacher certification.

## Office of Graduate Education - 123 SCCB

Information about admission to, and requirements of, graduate programs in education may be obtained in this office. The office also assists students with advisement, registration, graduation and related topics, and maintains student records.

## School and Family Counseling Center, Suite 9, Regional Center for Education and Work

The School and Family Counseling Center is a training facility for graduate students supervised by faculty in the Division of Counseling and Family Therapy. Counseling assistance with individual, couples, and family problems as well as adults, adolescents, or children's developmental concerns are available to individuals in the community. Phone (314)-516-5782 for more information.

## Reading Clinic - B9 ED LIB

The reading clinic provides a laboratory setting for graduate level elementary and secondary teachers who are seeking certification as reading specialists. The clinic has been providing services to the surrounding community in diagnosing and treating severe reading problems in children and adults since 1966. The clinic also serves as a demonstration and materials center for preservice and inservice teacher education, as well as a clinical research facility for the faculty.

## University Child Development Center - 130 SCB

The center provides university students with observation, participation, research, and similar educational and clinical opportunities; it also offers quality child care programs for children of student, faculty, staff, and community families.

## E. Desmond Lee Technology and Learning Center - 100 Marillac

The center provides education students and faculty a model environment for managing new methods of teaching through the newest technologies; a place to research and develop technology-enhanced teaching methods to engage K-12 students; and programs that connect school classrooms to the workplace.

# Department of Counseling and Family Therapy 

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## UMSL Home

Department of Counseling and Family Therapy Home Page

## Faculty

Mark Pope, Professor and Chair
Ed.D., University of San Francisco
R. Rocco Cottone, Professor

Ph.D., Saint Louis University
Susan Kashubeck-West, Professor
Ph.D., Ohio State University
Charles D. Schmitz, Professor Emeritus and Dean Emeritus
Ph.D., University of Missouri - Columbia
Angela D. Coker, Associate Professor
Ph.D., Union Institute and University
Therese S. Cristiani, Associate Professor Emeritus
Ed.D., Indiana University
Brian R. Hutchison, Assistant Professor
Ph.D., The Pennsylvania State University
Kelly Yu Hsin Liao, Assistant Professor
Ph.D., Iowa State University
Jennifer McAfee Maag, Clinical Assistant Professor
Ph.D., University of Missouri - Saint Louis
M. Lee Nelson, Visiting Professor

Ph.D., University of Oregon

## 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 page. The Department of Counseling and Family Therapy offers course work leading to three degrees: the Ph.D. in Education with an Emphasis in Counseling; the Ed.D. in Counselor Education and Supervision; an M.Ed. in Counseling with an emphasis in elementary school counseling, secondary school counseling, and clinical mental health counseling. General information on the doctoral degrees is presented here. Specific information on the doctoral degrees is presented in this Bulletin in the general College of Education listing.

The following Department of Counseling and Family Therapy areas have been accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP)

- Master of Education (M.Ed.) in School Counseling
- Master of Education (M.Ed.) in Clinical Mental Health Counseling
- Master of Education (M.Ed.) in Clinical Mental Health Counseling with a Specialization in Career Counseling
- Doctor of Education (Ed.D.) in Counselor Education and Supervision/Doctor of Philosophy (Ph.D.) in Education with an Emphasis in Counseling

CACREP, a specialized accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation, grants accredited status to graduate-level programs in the professional counseling field.

Students wishing to receive Missouri certification in elementary school counseling or secondary school counseling must complete all required courses for the M.Ed. in School Counseling in addition to holding teaching certificates valid in Missouri or taking the equivalent course work. (Consult your 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).

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 advisers 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, marriage and family therapists, and counseling psychologists 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 nondiscriminatory, 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, and fidelity. 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. And finally, counselors are guided by the principle of fidelity, meaning they are loyal to their clients and maintain the confidentiality and privacy of the counseling relationship. 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.

## Graduate Studies

## 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 April 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 reserves the right to review students at any stage of their coursework. Any grade less than a B in any core counseling course or a U (Unsatisfactory) in any clinical course (CNS ED 6000, Personal and Professional Development in Counseling; CNS ED 6010, Theories of Counseling; CNS ED 6370, Clinical Mental Health Counseling Practicum or CNS ED 6270 School Counseling Practicum; CNS ED 6380 Clinical Mental Health Counseling Field Experience or CNS ED 6280 School Counseling Field Experience will automatically trigger a review process. 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 a U (Unsatisfactory) 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; CNS ED 6370 Clinical Mental Health Counseling Practicum or CNS ED 6270 School Counseling Practicum. 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 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 curfilulum; 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:

Counselor Education (CNS ED)<br>CNS ED 6000, Personal and Professional Development in Counseling<br>CNS ED 6010, Theories of Counseling<br>CNS ED 6020, Ethical and Professional Issues in Individual and Relationship Counseling<br>CNS ED 6030, Foundations for Multicultural Counseling<br>CNS ED 6040, Group Procedures in Counseling<br>CNS ED 6050, Individual Inventory<br>CNS ED 6200, Foundations of School Guidance<br>CNS ED 6270, School Counseling Practicum<br>CNS ED 6280, School Counseling Field Experience (6)<br>CNS ED 6400, Career Information and Development

Psychological Foundations and Human Development (ED PSY)
ED PSY 6210, Lifespan: Individual \& Family Development

ED PSY 6532, Psycho-Educational Differences in Childhood

## Educational Research and Evaluation Methods (ED REM)

ED REM 6710, Educational Research Methods and Design
Electives
Six credit hours from CNS ED or related courses, such as CNS ED 6600: Theories and Techniques of Counseling Children and Adolescents, CNS ED 6500: Introduction to Systems Theory for Couples and Family Counseling, and others.

Total 48 hours.
Comprehensive Examination (Capstone Experience)
Please consult with the Department office for requirements and dates of this examination.
State Certification
Individuals seeking certification as a professional school counselor in the State of Missouri who are non-teacher certificated must take the following courses in addition to their counseling degree: ED PSY 6111, SPEC ED 6412, SPEC ED 6325, and ELE ED 6411 or SEC ED 6415 . Students seeking K-12 certification must take both ELE ED 6411 and SEC ED 6415.

Although not a degree requirement, a passing score on the relevant Praxis test 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.

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:

Counselor Education (CNS ED)
CNS ED 6000, Personal and Professional Development in Counseling
CNS ED 6010, Theories of Counseling
CNS ED 6020, Ethical and Professional Issues in Individual and Relationship Counseling
CNS ED 6030, Foundations for Multicultural Counseling
CNS ED 6040, Group Procedures in Counseling
CNS ED 6050, Individual Inventor
CNS ED 6200, Foundations of School Guidance
CNS ED 6270, School Counseling Practicum
CNS ED 6280, School Counseling Field Experience (6)
CNS ED 6400, Career Information and Development
Psychological Foundations and Human Development (ED PSY)
ED PSY 6210, Lifespan: Individual \& Family Development
ED PSY 6532, Psychoeducational Differences in Childhood
Educational Research and Evaluation Methods (ED REM)
ED REM 6710, Educational Research Methods and Design
Six credit hours from CNS ED or related courses
Total 48 hours.
Comprehensive Examination (Capstone Experience)
Please consult with the Department office for requirements and dates of this examination.
State Certification
Individuals seeking certification as a professional school counselor in the State of Missouri who are non-teacher certificated must take the following courses in addition to their counseling degree: ED PSY 6111, SPEC ED 6412 , SPEC ED 6325 , and ELE ED 6411 or SEC ED 6415 . Students seeking K-12 certification must take both ELE ED 6411 and SEC ED 6415.

Although not a degree requirement, a passing score on the relevant Praxis test 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.

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 Clincial 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:

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
CNS ED 6010, Theories of Counseling
CNS ED 6020, Ethical and Professional Issues in Individual and Relationship Counseling
CNS ED 6030, Foundations for Multicultural Counseling
CNS ED 6040, Group Procedures in Counseling
CNS ED 6050, Individual Inventory
CNS ED 6300, Foundation of Clinical Mental Health Counseling
CNS ED 6370, Clinical Mental Health Counseling Practicum
CNS ED 6375, Clinical Mental Health Counseling
CNS ED 6380, Clinical Mental Health Counseling Field Experience (6)
CNS ED 6400, Career Information and Development
CNS ED 6500, Introduction to Systems Theory for Couples and Family Counseling
CNS ED 6700, Introduction to Addictive Behaviors and Addiction Counseling
One course from the advanced multicultural cognate which includes:
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 (ED PSY)
The following course is required:
ED PSY 6210, Life-Span: Individual and Family Development
Educational Research and Evaluation Methods (ED REM)

The following course is required:
ED REM 6710, Educational Research Methods and Design
Electives and Area of Specialization (6 hours)
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)
Please consult with the Department office for requirements and dates of this examination.

## Doctoral Program (Ed.D./ 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.

## Ed.D. in Counselor Education and Supervision

## Mission

The mission of the Ed.D. in Counselor Education and Supervision (School Counseling) is to produce individuals who can serve as: (a) advanced level school counselors; (b) school counselor coordinators; (c) school district counseling program coordinators; and (d) counselor educators.

Purpose and Objectives
The objectives of the Ed.D. in Counselor Education and Supervision Program are:

1. to build upon and enhance the knowledge base in core counseling areas through successful completion of advanced doctoral seminars 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 doctoral internships;
3. to enhance the identification of complex problems in education and counseling through advanced counseling coursework;
4. to develop problem solving strategies in education and counseling;
5. to train counselor educators and supervisors of counselors-in-training;
6. to train supervisors of counseling service agencies in schools or other organizations;
7. 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;
8. 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 training in qualitative and quantitative research methodology and an advanced counseling research seminar;
9. to apply counseling theory to the process and practice of individual and team 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 in "Ethical and Professional Issues in Counseling";
10. to provide a firm theoretical foundation in personal and social development and assessment through the foundational area coursework;
11. to provide a context for skill development and practice in individual and group assessment (including intelligence, aptitude, achievement, interest, and personality assessment) through a supervised advanced doctoral practicum and doctoral internship;
12. to provide practitioners with a research foundation for directed enquiry and interpretation of research findings, through advanced coursework in research methods and a counseling research seminar; and
13. to encourage and facilitate linkage to the counseling professional community and academy trough organizational involvement and efforts to present scholarly findings at professional conferences or in professional journals. Students in doctoral seminar and advanced courses will be encouraged to submit
their work for publication or presentation through professional and academic outlets.

## 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; 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 firm theoretical foundation in the educational psychology "related area discipline," focusing on personal and social development and assessment;
10. 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;
11. 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
12. 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.

## Course Descriptions

Prerequisites may be waived by consent of the Department. For information about certification and licensure, an adviser should be consulted. Course descriptions in this section are Counseling (CNS ED) courses.

## CNS ED 1400 Making a Career Choice (1)

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. (This course meets the General Education requirements for Social \& Behavioral Sciences and Valuing.)

CNS ED 3000 I ntroduction to the Counseling Profession (3)
Prerequisite: Junior or senior level standing. This survey course will provide undergraduates and noncounselors with a broad overview of the counseling profession. Topics include a history of the profession, foundations of counseling, ethical, and legal considerations and the role of the counselor in various settings.

## CNS ED 3220 Counseling Individuals with Special Needs (3)

Prerequisite: SPEC ED 3313, or equivalent. 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)

Prerequisite: Junior or senior level standing or consent of the 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 skillbuilding exercises will be used to develop various human relations skills.

## CNS ED 4320 Occupational and Educational Information (3)

Prerequisite: 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)

Prerequisite: 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)

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 I ssues in Individual and Relationship Counseling (3)
Prerequisite: 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)

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)

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010 and CNS ED 6270 or 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 I ndividual I nventory (3)
Prerequisite: An introductory statistics course or consent of instructor. Uses of educational and psychological appraisal techniques in counseling. Develops counselors' abilities in assisting clients toward self awareness through the use of test and nontest data. Ethical practices in the use of tests and the maintenance of personnel records are stressed.

CNS ED 6070 Psychopathology and Diagnosis (3)
Prerequisites: Graduate standing. Same as ED PSY 6113. 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.

CNS ED 6060 Enhancing Counseling Skills (3)
Prerequisite: CNS ED 6000. Focuses on mastery of basic counseling skills for students who possess an understanding of the counseling process.

## CNS ED 6200 Foundations of School Guidance (3)

Prerequisite: 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)

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)

Prerequisites: CNS ED 6000 andCNS ED 6010 (both courses with a grade of B or better) or consent of the instructor. Supervised practice in counseling with children and adolescents and the opportunity for students to learn to facilitate personal change and problem solutions using a defined systematic framework, theoretical orientation, or research base.

## CNS ED 6280 School Counseling Field Experience (1-6)

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)

Prerequisites: CNS ED 6000with 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)
Prerequisites: CNS ED 6000 and CNS ED 6010 and 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.

## CNS ED 6375 Clinical Mental Health Counseling Practicum II (3)

Prerequisites: CNS ED 6000, 6010, and 6370 (all courses with a grade of B or better or S, as appropriate) or consent of the 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.

CNS ED 6380 Clinical Mental Health Counseling Field Experienc (1-6)
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 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)

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 Seminars (1-10)
Prerequisite: Graduate Standing

## CNS ED 6410 Advanced Career Development (3)

Prerequisite: 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)

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)

## CNS ED 6500 Introduction to Systems Theory for Couples and Family Counseling (3)

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, social 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 Couple Counseling and Enrichment (3)

Prerequisite: CNS ED 6500 or consent of instructor. This course focuses on the theory and technique 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)
Prerequisites: CNS ED 6500 and CNS ED 6260 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)

Prerequisite: CNS ED 6000, CNS ED 6010 (with a grade of B or better in both courses) or consent of the instructor. Focus is 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 6700 Introduction to Addictive Behaviors and Addiction Counseling (3)

Prerequisite: CNS ED 6010 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)
Prerequisite: 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 I ndividuals with Co-Occurring Disorders (3)

Prerequisite: 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)

Prerequisites: CNS ED 6000; 6010, and either 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)

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)
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)
Prerequisites: CNS ED 6000 and 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)
Prerequisites; CNS ED 6000 and 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 Proverty Issues in Counseling (3)

Prerequisites: CNS ED 6000 and 6010, or consent of 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 elationship 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 attitudes and techniques designed to maximize the quality of a counselor's work with poorer clients.

## CNS ED 6860 Human Sexuality in Counseling (3)

Prerequisites: CNS ED 6000 and 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)
Prerequisite: 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)

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)

Prerequisite: 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)

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)

Prerequisite: 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 an assigned caseload of supervisees and attend three hours of weekly doctoral-level supervision.

## CNS ED 7070 Psychopathology and Diagnosis in Counseling Psychology (3)

Prerequisite: Doctoral standing or consent of instructor. This advanced course provides an in-depth look at adult psychopathology based upon the diagnostic categories of the Diagnostic and Statistical Manual of Mental Disorders (DSM). Contemporary theoretical, clinical, and research issues will be covered, with an emphasis on differential diagnosis.

CNS ED 7600 Advocacy, Consulting, and Community Intervention in Counseling Psychology (3) Prerequisite: Doctoral standing or instructor consent. This course provides students with knowledge and experience in the application of psychological theories and methods to community concerns and problems.

## CNS ED 7770 Doctoral Practicum (3)

Prerequisite: Doctoral standing. 100 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)

Prerequisites: CNS ED 7770; ED REM 7804 and ED REM 7781. A 100-hour field experience for each semestercredit 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.

# Department of Educational Leadership and Policy Studies 

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## UMSL Home

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## Faculty

Margaret R. Dolan, Associate Teaching Professor, Chairperson
Ph.D., St. Louis University
Lynn Beckwith, Jr., E. Desmond Lee Professor in Urban Education
Ed.D., St. Louis University
Judith A. Cochran, E. Desmond Lee Professor in Tutorial Education
Ph.D., Arizona State University
Charles J. Fazzaro, Professor
Ed.D., West Virginia University
Patricia Boyer, Associate Professor
Ph.D., University of Missouri-Columbia
Kathleen Sullivan Brown, Associate Professor
Ph.D., Washington University
Matthew D. Davis, Associate Professor
Ph.D., University of Texas, Austin
E. Paulette Isaac-Savage, Associate Professor

Ed.D., University of Georgia
Shawn Woodhouse, Associate Professor
Ph.D., University of Missouri-Columbia
Pi-Chi Han, Assistant Professor
Ed.D., University of Arkansas-Fayetteville
Ken Owen, Teaching Professor
Ed.D., Saint Louis University
Lowe S. (Sandy) MacLean, Vice Chancellor Emeritus
Ed.D., Indiana University-Bloomington
Joy E. Whitener, Professor Emeritus, Dean Emeritus
Ed.D., Washington University
Carole A. Murphy, Founders Professor
Ed.D., Texas A\&M University
Thomas R. Schnell, Founders Pofessor
Ph.D., Southern Illinois University, Carbondale
Wendell L. Smith, Assistant Professor and Dean Emeritus
Ph.D., Ohio State University

## 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).

The programs in K-12 school administration are not merely a list of courses. The M.Ed. and Ed.S. degree programs are organized into a continuous two-phase academic/practice experience. In the first phase the students earn the M.Ed. degree and meet the academic requirements for the initial Missouri State elementary and secondary school administrator's certificates. The second phase leads to the Ed. S., concentrating more on the relationship of academics to practical schooling experiences and solution to school-based problems. With proper selection of courses in the Ed.S. phase, students can meet most of the academic requirements for the Missouri school superintendent's certificate. Please see your advisor for specifics regarding the superintendent certification.

Education Specialist (Ed.S.) in Education Administration
The Education Specialist Degree (Ed.S.) in Education Administration is a logical extension of the UMSL M.Ed. in Education Administration and is designed to prepare administrators to serve in school settings from Kindergarten to grade twelve and central office administration. The Ed.S. in Education Administration requires at least sixty (60) graduate credit hours of a planned program and may include no more than thirty-six (36) credit hours of an approved NCATE accredited master's degree. One-half ( 15 credit hours) must be completed within the COE after being admitted to the Ed.S. program. As constituted, the minimum course requirements for the Ed. S. in Education Administration collaterally meets the academic standards for both Elementary and Secondary career continuous school administrator certification in Missouri. To be recommended for the Missouri School Superintendent certificate, students must complete at least a minimum of six (6) additional hours, depending on the courses taken for the Ed.S., for a total of sixty-six (66) hours above the baccalaureate.

## Admission Standards

To be admitted to the Ed.S. in Education Administration program students must meet the following criteria:

1. Be admitted without qualification to the UMSL Graduate School;
2. Have scores on the Verbal, Quantitative, and Analytical Writing sections of the Graduate Record Examination that is at least the mean for the applicant's major field.
3. Have a graduate grade point average of at least 3.25 on a scale of 4.00 .
4. Have on file at least three (3) recommendations including the following: one (1) from an educator presently occupying a position equal or similar to that which the applicant aspires upon completing the Ed. S., one (1) from a university professors with direct knowledge of the applicant's graduate degree work, and one (1) from someone other than a member of the applicant's family who can comment on the applicant's character.
5. Students already possessing a master's degree from an NCATE accredited institution may transfer those credit hours into the Ed.S. degree program; however, at least twenty-four (24) credit hours must be completed after acceptance into the program.

## Degree Program

There are three (3) phases to this degree program. Phase $\mathbf{1 . 0 0}$ must be completed by students not possessing a UMSL M.Ed. in Education Administration and those wanting to transfer appropriate grade courses from other NCATE institutions. Phase $\mathbf{2 . 0 0}$ applies to those students meeting all of the requirements in Phase 1.00. There are two (2) sections to Phase 2.00--- Section 2.10 Technical Aspects of Education

Administration and Section 2.20 Human Aspects of Education Administration. Courses in these two sections may be taken simultaneously. There are two (2) sections to Phase 3.00--- Section 3.10 Writing Exit Requirements and Section 3.20 Examination Exit Requirements. Both sections must be completed no sooner than one (1) semester before completing all degree requirements. Students seeking the superintendent certification must complete ten (10 specifically required courses.

Phase 1.00

### 1.00 Elementary and Secondary School Education Emphases

1.10 Contexts Core

ED ADM 6201, Knowledge Contexts of Education Administration Policy (3)
ED ADM 6202, Social Contexts of Education (3)
ED ADM 6203, Political Contexts of Education (3)
ED ADM 6204, Economic Contexts of Education (3)
ED ADM 6205, Legal Contexts of Education (3)
Required Semester Hours Section 1.10..... 15
1.20 Research/Change Core (6-9 semester hours)
*ED REM 6707, Classroom Measurement and Evaluation (3)
** ED ADM 6301, Education Administration and Policy Research(3)
ED ADM 6503, Organizational Change in Education (3)
Required Semester Hours Section 1.20.....6-9
1.30 School Specialization Core
1.31 Elementary School Administration

ED ADM 6302, Elementary School Administration (3)
ED ADM 6401, School Staff Development and Supervision (3)
ELE ED 6411, Curricular Issues in Elementary Schools
** ED ADM (6900) Internship (3)
Required Semester Hours Section 1.31
12 OR

### 1.32 Secondary School Administration

ED ADM 6304, Secondary School Administration (3)
ED ADM 6401, School Staff Development and Supervision (3)
SEC ED 6415, Secondary School Curriculum
** ED ADM 6900 Internship (3)
Required Semester Hours Section 1.32........ 12
TOTAL Phase I 33-36

* Required if student had no equivalent course at the undergraduate level
** This course must be taken within the last nine (9) semester hours of completion of Phase 1.00


## Phase 2.00

Section 2.10

## Technical Aspects of Education Administration

(12 Semester hours required)
At least 12 graduate semester hours are required from the following list of recommended courses. Other courses must be approved by the student's advisor and ELAPS department chairperson.

ED ADM 6303, Middle School Administration (3)
ED ADM 6305, School District Administration (3)
ED ADM 6407, School Staff Development \& Supervision for Special Ed Administrators (3)
ED ADM 6501, Principles of Public School Finance in Missouri (3)
ED ADM 6502, School Buildings and Sites (3)
ELE ED 6411, Curricular Issues in the Elementary School (3)
ED ADM 6315, Middle School Educational Philosophy (3)
SEC ED 6415, Secondary School Curriculum (3)
SEC ED 6420, Improvement of Secondary School Teaching (3)
ED ADM 6306, Special Education Administration (3)
ED TECH 5340, Selection and Utilization of Educational Media (3)
ED TECH 6433, Educational Technology Systems Management (3)
ED TECH 6449, Using Technology in Administrative Processes (3)
ED REM 6708, Education and Psychological Measurement

## Section 2.20

Human Aspects of Education Administration
(12 semester hours required)
At least 12 graduate semester hours are required from the following list of recommended courses. Other courses must be approved by the student's advisor and ELAPS department chairperson.

ED ADM 6307, Integrated Curriculum for Special Ed Administrators (3)
ED ADM 6317, Supervision and the Middle School Child (3)
ED ADM 6402, School Personnel Administration (3)
ED ADM 6403, Problems in School Public Relations (3)
ED ADM 6404, Collective Negotiations in Education Organizations (3)
ED ADM 6602, Programming in Adult and Community Education (3)
ED FND 6422, Analysis of Education Issues (3)

ED FND 6435, History of Western Education (3)
ED PSY 6225, Psychology of Adolescence (3)
POL SCI 6462, Political Theory and Public Policy (3)
ED ADM 6900, Internship (School District Level) (3)
ED ADM 6900, Internship (Special Education Setting) (3)
Total Section 5.32.
TOTAL Education Specialist Degree in Education Administration $\qquad$ 60 (inclusive of a maximum of 36 credit hours from an M.Ed. in education administration.)

## Phase 3.00

## Writing Exit Requirements

## Section 3.10-Writing Requirements

At least two (2) months before the completion of all course work for the degree, each student must present to the ELAPS Department K-12 Regular faculty Ed.S. Writing Committee a scholarly paper on a topic approved by the student's academic advisor. The paper submitted may be original in that it has been written especially for this requirement or it may be a more comprehensive version of a paper written for a class taken after being admitted to the Ed.S. program. The paper must conform to the writing standards found in the booklet PS K-12 Writing Requirements-Form and Style.

Master of Education (M.Ed.) and Initial Missouri School Administration Certification
The program of study for the M.Ed. in Education Administration is thirty-three (33) graduate credit hours. All courses in the program are required and must be taken in a particular sequence. The program meets the academic requirements for either the Missouri elementary or secondary school administrator certificate.

## Degree Requirements

### 1.00 Contexts Core ( 15 semester hours)

ED ADM 6201, Knowledge Context of Education
ED ADM 6202, Social Contexts of Education
ED ADM 6203, Political Contexts of Education
ED ADM 6204, Economic Contexts of Education
ED ADM 6205, Legal Contexts of Education
1.20 Research/ Change Core ( $6-9$ semester hours)

* ED REM 6707, Classroom Measurement and Evaluation
** ED ADM 6301, Education Administration and Policy Research (3)
ED ADM 6503, Organizational Change in Education
1.30 School Specialization Core (12 semester hours)


### 1.31 Elementary School Administration

ED ADM 6302, Elementary School Administration
ED ADM 6401, School Staff Development and Supervision
ELE ED 6411, Curricular Issues in Elementary Schools
*** ED ADM 6900, Internship

### 1.32 Secondary School Administration

ED ADM 6304, Secondary School Administration
ED ADM 6401, School Staff Development and Supervision
SEC ED 6415, Secondary School Curriculum
*** ED ADM 6900, Internship

* Required if student had no equivalent course at the undergraduate level.
** Exit course--must be taken during last semester of M.Ed. program.
*** Must be taken within the last 9 semester hours before completion of M.Ed. program.
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
ED FND 6435, History of Western Education
OR
ED FND 4330, History of American Education
ED ADM 6202, Social Contexts of Education
ED ADM 6203, Political Contexts of Education
Total Required Sem. Hrs. Section $2.10=12$
2.20 Research Core

ED ADM 6301, Educational Administration Policy Research
ED REM 5730, Educational Statistics
Total Required Sem. Hrs. Section $2.20=6$

### 2.30 Community Education

ED ADM 6602, Programming in Community and Adult Education
ED ADM 6900, Internship: Community Education
Total Required Sem. Hrs. Section $2.30=9$

### 2.40 School Specialization **

2.41 Elementary School Administration

ED ADM 6302, Elementary School Administration
ELE ED 6411, Curricular Issues in the Elementary School
Total Required Sem. Hrs. Section $2.41=6$
2.42 Secondary School Administration

ED ADM 6304, Secondary School Administration
SEC ED 6415, The Secondary School Curriculum OR
Total Required Sem. Hrs. Section $2.42=6$
TOTAL Master of Education-Community Educ $=33$
*Exit Requirement--Taken within the last 9 semester hours of the M.Ed. program.
**Students take either section 2.41 or section 2.42 not both sections.
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 ( 12 hours required)
A course focusing on the learner
ADULT ED 6410, The Adult Learner (3) OR
HI GHERED 6474, The College Student (3)
A course in historical foundations
ADULT ED 6411, History of Adult Education (3) OR
HI GHERED 6477, History and Philosophy (3)
A course on the improvement of instruction
ADULT ED 6413, I mprovement of Instruction in Adult Education
HI GHERED 6473, Curriculum in Higher Education (3) OR
ED PSY 7647, Teaching for Learning in the University (3)
One of the following:
ADULT ED 6412, Philosophical Foundations of Adult Education (3)* AND
ADULT ED 6414, Curriculum Theory \& Development in Adult Education (3)*
HI GHERED 6476, Organization and Administration (3)
(* Both classes are required for Adult Ed program)
Adult and Higher Education Electives (12 hours minimum)
ADULT ED 6230, Adult Learning and Development (3)
ADULT ED 6416, Survey of Adult Distance Education (3)
ADULT ED 6417, Multicultural Issues in Adult Education (3)
ADULT ED 6418, Assessment in the Adult Classroom (3)
ADULT ED 6419, Developing Intercultural Competence (3)
ADULT ED 6420, Survey of Human Resource Development \& Adult Ed (3)
ADULT ED 6432, Teaching in the Community College (3)
ADULT ED 6494, Directed Readings in Adult Learning (3)
ADULT ED 6497, Problems in Adult Education (3)
ADULT ED 6404, Seminar in Adult Education Research (3)
ADULT ED 6540, Comparative International Adult and Higher Education (3)
HI GHERED 5401, Current Issues in Higher Education (3)
HI GHERED 5402, Student Affairs Administration (3)
HI GHERED 6404, Seminar (3)
HI GHERED 6405, Economics and Finance (3)
HI GHERED 6406, Governance of Higher Education (3)
HI GHERED 6410, Ethics in Higher Education Administration (3)
HI GHERED 6420, Legal Aspects of Higher Education (3)
HI GHERED 6421, Legal Aspects of Postsecondary Teaching (3)
HI GHERED 6422, Policy Analysis of Higher Education (3)
HI GHERED 6430, The Community College (3)
ED ADM 6601, Administration of Adult and Community Education (3)
ED ADM 6602, Programming in Adult and Community Education (3)
ED PSY 6111, Psychology of Education (3)
ED TECH 5340, Selection and Utilization of Educational Multimedia (3)
ED TECH 6415, Teaching and Learning with Technology: Authoring Tools (3)
ED TECH 6416, Teaching and Learning with Technology: Data Rep. Tools
ED TECH 6436, Computer-Mediated Communication in Education (3)
ED TECH 6437, Distance Learning via Networks and Telecommunications (3)
ED TECH 6452, Educational Multimedia Design (3)
ED TECH 6454, Instructional Video Production (3)

Research Course(s) (3-6 hours required)
ED REM 6707, Classroom Measurement and Evaluation (3)
ED REM 6709, Educational \& Psychological Measurement (3)
ED REM 6710, Research Methods* (3)
*Required for Higher Education
Exit Requirement ( 3 hours required)
One of the following taken during the last 9 semester hours of the program
HI GHERED 6900, Internship (3)
ADULT ED 6990, Internship in Adult Education (3)

## 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 4411, Teaching Basic Reading to the Adult Learner
ADULT ED 6230, Adult Learning \& Development
ADULT ED 6404, Seminar in Adult Education Research-Adult Literacy
ADULT ED 6410, The Adult Learner
ADULT ED 6411, History of Adult Education
ADULT ED 6412, Philosophical Foundations of Adult Education
ADULT ED 6413, Improvement of Instruction in Adult Education
ADULT ED 6414, Curriculum Theory and Development in Adult Education
ADULT ED 6417, Multicultural Issues in Adult Education
ADULT ED 6418, Assessment in the Adult Classroom


## Learning Outcomes

The Adult \& HE student should demonstrate and/or have an understanding of:

1. Integrating teaching, learning, and technology.
2. Awareness of education and educational research as a lifelong process.
3. The unique role of shared governance in postsecondary institutions.
4. The legal, social, and political contexts as it relates to organization and postsecondary institutions.
5. Student learning and development, including learning communities and curricular issues.
6. Exploring issues related to faculty.
7. Critical inquiry, including research courses and internships.
8. Historical periods and historical adult and higher education educators.
9. Characteristic issues associated with different historical periods; Role of adult education during various historical periods.
10. Knowledge of the vast array of methods, techniques, devices, and research findings available for helping adults learn.
11. Application of the various techniques for helping adult learners in their adult education programs.
12. Philosophical perspectives informing the field of adult education or 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:
HIR ED 6430, The Community College (Taught by UMSL Faculty - 3 hours, Entry Level course)
HIR ED 6431, Community College Leadership (Taught by UMSL Faculty - 3 hours)
EDUL 5559, Current Issues in the Community College (Taught by UMKC Faculty - 3 hours)
EDUL 5553, Supervising and Managing People (Taught by UMKC Faculty - 3 hours)
Elective, (Can be taken from either institution or an approved elective from the student's home institution - 3 hours)
HIR ED 6900, Internship (UMSL) or EDUL 5571, Internship in Higher Education (UMKC) (3 hours, Capstone Experience)

## Course Descriptions

## Adult Education (ADULT ED)

## ADULT 4311 Teaching Basic Reading skills to Adults (3)

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)

Same as ED PSY 6230. Prerequisite: ED PSY 6210 or ED PSY 6111, or ADULT ED 6410. Study of how life stage theories and theories of learning pertain to adult learner. Research bases of these theories explored in relationship to instructional practice with adult learners.

## ADULT ED 6404 Seminar in Adult Education Research (1-10)

Prerequisite: 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)

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)

Prerequisite: ADULT ED 6410. A study of the historical foundation of adult education in America will be studied. This includes 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)

Prerequisite: ADULT ED 6410 or consent of instructor. A comprehensive, systematic philosophical foundation for adult education. Exploration of philosophical underpinnings of various approaches to education of adults-role of learner, teacher, and objectives within each philosophy.

## ADULT ED 6413 Improvement of Instruction in Adult Education (3)

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)

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)

Prerequisite: 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)

Prerequisite: ADULT ED 6410. Survey of distance education covers concept, theories, history, present practice, delivery systems, major issues and future directions of distance learning. Emphasis on research and practice in 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 international perspective, identifying similarities and differences among countries as they relate to adult learning.

## ADULT ED 6417 Multicultural Issues in Adult Education (3)

Prerequisites: ADULT ED 6410. Discussion of 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)

Prerequisites: ADULT ED 6410 \& 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 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)
Prerequisite: 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 (3)

Prerequisites: Graduate standing and permission of instructor. Overview of fields of human resource development and adult education. Examines societal contexts within which training of adults and organization development occur. Explores systems theory that frames a discussion of adult education, training, and organization development. Represents unique characteristics of each field will be represented as well as ways in which two fields come together, along with general concepts: definitions, philosophies, goals, sponsoring agencies, professional roles, processes, participants, and resources.

## ADULT ED 6424 Intervention Determination in Adult Learning and Human Resource Development

 (3)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, non-training 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)

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 non-degree 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)

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)
Prerequisite: ADULT ED 6410 or consent of instructor. Independent study on topics in adult education.

## ADULT ED 6540 Comparative International Adult \& Higher Education (3)

Prerequisite: 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 nonwestern educational themes and issues will be viewed from the context of their respective cultures.

ADULT ED 6990 Internship (1-10)
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)
Prerequisite: Doctoral Standing. 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 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 Advanced Research in Adult Education (3)
Prerequisite: ADULT ED 7820. This course will build on ADU 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)

Prerequisite: 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 (ED ADM)

Prerequisites may be waived by consent of the department.

## ED ADM 6201 Knowledge Contexts of Education Administration and Policy (3)

Prerequisite: Admission to masters, 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)
Prerequisite: 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)
Prerequisite: 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 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)

Prerequisite: 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)

Prerequisite: 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)
Prerequisite: Completion of at least twenty-four (24) 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 educational policy making.

## ED ADM 6302 Elementary School Administration (3)

Prerequisite: Completion of at least (15) 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)

Prerequisite: Completion of at least (15) 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)

Prerequisite: Completion of at least (15) 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)
Prerequisites: Enrolled in Ed.S. 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)

Prerequisite: 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 Curricula for Special Education Administrators (3)
Prerequisite: 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)
Prerequisite: Graduate standing. 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)
Prerequisite: Graduate standing. 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)

Prerequisite: 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)

Prerequisite: Advanced graduate 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)

Prerequisites: Advanced graduate standing and/or consent of instructor. This course is an examination of a range of both traditional and critical perspectives relevant to home-school-community relations.

ED ADM 6404 Collective Negotiations in Educational Organizations (3)
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 for Special Education Administration (3) Prerequisite: 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)
Same as ED TECH 6449. Prerequisite: A course in measurement, statistics or evaluation, or consent of instructor. This 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)
ED ADM 6501 Principles of Public School Finance in Missouri (3)
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)

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)

Prerequisites: 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)

Prerequisites: Graduate standing and/or 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)

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)

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 Process I: Framing Research Questions within the Education Literature (3)

Same as EDUC 7050. Prerequisite: 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 I nquiry (3)

Prerequisite: 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)

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 Education Administration Doctoral Seminar (1-6)

Prerequisites: Admission to doctoral program and consent of instructor. Intensive directed study of selected issues related to the administration of educational institutions.

## Higher Education (HI GHERED)

## HI GHERED 5401 Current Issues in Higher Education (3)

Prerequisite: Graduate admission. Familiarizes student with nature and characteristics of American higher education--structure of higher education, roles played by various constituencies, and current issues.

## HI GHERED 5402 Student Affairs Administration (3)

Prerequisite: Graduate admission. Survey course in student personnel administration with emphasis on understanding college student and on learning ways to meet his/her academic and nonacademic needs.

HI GHERED 6404 The Seminar (1-10)
Prerequisite: Graduate standing.
HI GHERED 6405 Financial I ssues in Higher Education (3)
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.

## HI GHERED 6406 Governance of Higher Education (3)

Prerequisite: Graduate admission. Concentrates on study of unique system of governance in higher education, including faculty, institutional, system, and state governing mechanisms.

HI GHERED 6408 Legal Issues in Student Affairs (3)
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.

## HI GHERED 6409 Critical Issues in Student Affairs (3)

Prerequisite: 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.

## HI GHERED 6410 Ethics in Higher Education Administration (3)

Prerequisite: Graduate standing. Students will examine the historical and philosophical foundations of ethics and their implications for faculty, staff and students in the academic workplace.

HI GHERED 6420 Legal Aspects of Higher Education (3)
Prerequisite: Graduate admission. Examines legal rights and responsibilities of faculty, students, staff, and administrators. Includes fair employment, due process, affirmative action, and liability.

HI GHERED 6421 Legal Aspects of Postsecondary Teaching (3)
Prerequisite: Graduate admission. 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.

## HI GHERED 6422 Policy Analysis of Higher Education (3)

Prerequisite: 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.

HI GHERED 6430 The Community College (3)
Prerequisite: Graduate admission. Develops 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.

## HI GHERED 6431 Community College Leadership (3)

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.

HI GHERED 6432 Current Issues in Community College Education (3)
Prerequisite: Graduate admission. 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.

## HI GHERED 6435 The International Community College (3)

Prerequisite: HIGHERED 6430. Exploration of the development of systems of post secondary education throughout the world that mirror all or parts of the mission of the community college system in the United States. The course takes a comparative approach to examining the history, philosophy, structure, curriculum and student characteristics of these international systems, using the American system as a point of reference.

## HI GHERED 6440 I ssues in Institutional Research I (3)

Prerequisite: 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.

HI GHERED 6441 I ssues in I nstitutional Research II (3)
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.

HI GHERED 6473 Curriculum in Higher Education (3)
Prerequisites: Graduate standing and/or consent of instructor. The development, implementation, and assessment of curriculum in higher education as well as historical and philosophical perspectives; major figures and emerging trends are included.

## HI GHERED 6474 The College Student (3)

Prerequisites: Graduate standing and/or consent of instructor. 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.

HI GHERED 6476 Organization and Administration of Higher Education (3)
Prerequisites: Graduate standing and/or consent of instructor. This course includes the study of the missions, governance, and organizational structures of American higher education institutions. Within this context, particular attention is given to administrative roles, responsibilities, and issues of leadership.

HI GHERED 6477 History and Philosophy of American Higher Education (3)
Prerequisites: Graduate standing and/or consent of instructor. 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.

HI GHERED 6497 Problems (1-10)
Prerequisites: Graduate standing and/or consent of the instructor.

## HI GHERED 6900 I nternship (1-10)

Prerequisites: Graduate standing and/or consent of the instructor. Closely supervised experience in a field 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.

HI GHERED 7800 Higher Education Doctoral Seminar (1-6)
Prerequisites: Doctoral standing and/or consent of instructor. Intensive directed study of selected issues related to the administration of higher education institutions.

# Department of Educational Psychology, Research and Evaluation 

College of Education | Educational Psychology Course Descriptions |<br>Educational Research and Evaluation Methods Course Descriptions | Counseling and Family Therapy | Educational Leadership and Policy Studies | Teaching and Learning | College-wide Courses |

## UMSL Home

Department of Educational Psychology, Research and Evaluation Home Page

## Faculty

Matthew W. Keefer, Associate Professor and Chair
Ph.D., University of Toronto
Wolfgang Althof, Theresa Fischer Endowed Professor of Citizenship Education, Dr. Phil., University of Fribourg and Dr. Phil. Habil, Carl-Von-Ossietzky
Marvin W. Berkowitz, Sanford N. McDonnell Professor of Character Education
Ph.D., Wayne State University
Thomas E. Jordan, Curator's Professor of Child Development, Professor Emeritus
Ed.D., Indiana University
William L. Franzen, Professor, Dean Emeritus
Ph.D., University of Wisconsin
Michael W. Bahr, Associate Professor
Ph.D., Indiana University
Margaret W. Cohen, Associate Professor, Associate Provost Academic Affairs, Director, Center Teaching and Learning
Ph.D., Washington University
Cody S. Ding, Associate Professor
Ph.D., University of Minnesota
Julie M. Kapp, Associate Professor, Director of Evaluation
Ph. D., Saint Louis University
Lisa M. Dorner, Assistant Professor
Ph.D., Northwestern University
Natalie Bolton, Assistant Professor
Ph.D., University of Louisville
Clark J. Hickman, Associate Research Professor and Associate Dean for Continuing Education Ed.D., University of Missouri-St. Louis
Donald A. Gouwens, Associate Clinical Professor
Psy.D., Central Michigan University

## General Information

Faculty in the Department of Educational Psychology, Research, and are housed on the fourth floor of Marillac Hall. Information about course offerings may be obtained in the division office, 402 Marillac Hall.

At the undergraduate level, the department coordinates Educational psychology and measurement courses required in the various B.S. in Education degree programs.

At the graduate level, the department offers courses in Educational psychology and in Educational research and evaluation methods required in the various M.Ed. degree programs and in the doctoral programs. Students choosing to pursue a Ph.D. in Education may elect an emphasis in Educational psychology. The Missouri certificate in school psychology is coordinated through this department.

## 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.

1. 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.
2. Improved Educational and Psychological Treatment Outcomes

Ed S. candidates will gain knowledge of and develop skills associated with a wide-range of researchbased academic, behavior, and psychological interventions treatments to promote academic performance and social-emotional behavior.
3. 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.
4. 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, Theories of Personality or Theories of Counseling, 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:
Fall I
ED PSY 6530, Foundations of School Psychology
ED PSY 6532, Psychoeducational Differences
ED PSY 6545, Consultation in Schools and Related Settings

ED REM 6750, Advanced Research Design in Education

## Spring I

ED PSY 6310, Psychology of Learning Processes
ED PSY 6550, Professional Issues in School Psychology
ED REM 6718, Psychoeducational Assessment and Intervention
ED REM 7771 , Quantitative Research Methods I

## Summer I

ED PSY 6210, Life Span: Individual and Family Development
SPEC ED 6325, Advanced Studies in Classroom \& Behavior Management
Fall II
ED PSY 6536, Biological Bases of Behavior
ED PSY 6540, Psychoeducational Interventions
ED PSY 6590, School Psychology Practicum I
ED REM 6719, Advanced Psychoeducational Assessment and Intervention
Spring II
CNS ED 6030, Foundations for Multicultural Counseling
ED PSY 6542, Psychotherapeutic Interventions in School Psychology
ED PSY 6591, School Psychology Practicum II
ED REM 6730, Educational Program Evaluation
Fall III
ED PSY 6598, School Psychology Internship I
Spring III
ED PSY 6599, School Psychology Internship II
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 and Assessment 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 ( 9 credit hours)
ED REM 6750, Advanced Research Design in Education (3)
ED REM 7771 , Quantitative Research Methods I (3)
ED REM 7781, Qualitative Methods in Educational Research I (3)
Program Evaluation ( 9 credit hours)
ED REM 6730, Educational Program Evaluation (3)
ED REM 6732, Advanced Theory and Practice in Program Evaluation (3)
ED REM 6990, Internship (3)

## Course Descriptions

Courses in this section are grouped as follows: Educational Psychology (ED PSY) and Educational
Research and Evaluation Methods (ED REM)

## Educational Psychology (ED PSY)

## ED PSY 2212 Introduction to Learners and Learning (3)

Same as TCH ED 2212. 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 Teaching and Learning (3)
Same as TCH ED 3312. Prerequisites: TCH ED 2209, TCH ED PSY 2212 or equivalents and admission to Teacher Education program. Application of educational psychology principles and research to the study of teaching and how learning occurs. Students will study and apply cognitive approaches to student learning, and
will design and conduct assessments based on these approaches as part of a case study. Field assignments outside of class hours required

## ED PSY 6030 I nstruction, Learning and Assessment (3)

Same as TCH ED 6030. Prerequisite: Admission into 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 \& Development in Secondary School Settings (4)
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)

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)
Prerequisite: Graduate standing. Same as CNS ED 6070. 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 6115 Personality and Social Development (3)

A foundational course integrating major theoretical perspectives on personality and social development. Emphasis is on the dynamic interplay of social influences on personality development and personality influences on social processes. Particular consideration is given to the impact of social contexts, including the school, on development.

## ED PSY 6210 Life-Span: Individual and Family Development (3)

Prerequisite: Graduate standing. Critical analysis 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)
Prerequisite: ED PSY 6111 or consent of instructor. A survey of the theories, concepts, and research which inform the field of early childhood development to 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)

Prerequisite: 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

ED PSY 6218 Coaching Sports for Character (3)
Prerequisite: Graduate Standing. Interdisciplinary examination of relevant theory, research and pedagogical practices related to character development through sports. Drawing from both academic and professional.

ED PSY 6220 Psychology of the Elementary School Child (3)
Prerequisite: ED PSY 6111 or consent of instructor. Current research on the psychological changes which occur during the school age years of childhood. Includes attention to how development proceeds and to the processes that may alter its progress.

## ED PSY 6225 The Psychology of Adolescence (3)

Prerequisite: 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)
Prerequisite: ED PSY 6111. Advanced study of learning and instructional theories. The historical and theoretical bases of instructional practice are examined

ED PSY 6404 Seminar (1-10)
ED PSY 6417 Current Perspectives on Citizenship Education (3)
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 6440 Moral Development and Education (3)
Prerequisites: ED PSY 6210 or ED PSY 6220 or ED PSY 6225 or consent of the instructor. An introduction and overview of moral psychology and its implications for creating learning environments. Questions of human morality are by nature cross-disciplinary, and readings and discussions will involve questions of epistemology, human nature, conceptions of "the good life," evidence for the malleability of human development, and research regarding the foundation, nature, and complexity of moral development.

## ED PSY 6444 Cognition and Technology (3)

Same as ED TECH 6444. Prerequisite: 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)

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 I nquiry Learning (3)

Same as ED TECH 6448. Prerequisites: ED TECH 5340 \& 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 technologysupported 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)
Prerequisite: 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)

## ED PSY 6530 Foundations of School Psychology (3)

Prerequisite: Admission to the School of 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)

Prerequisite: 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)

Prerequisite: Admission to the School of Psychology Program or consent of instructor. 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)

Prerequisite: Grade 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)

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)
Prerequisite: 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)
Prerequisite: 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)

Prerequisites: Grade 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)
Prerequisite: 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)
Prerequisite: 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 credential school psychologist. Course is eligible for grade equivalency credit.

ED PSY 6599 School Psychology I nternship II (3)
Prerequisite: 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 I nternship (1-10)

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 PSY 7210 Theories of Development and the Life Course (1-6)

Prerequisites: Doctoral standing and at least one course in human development (e.g., Ed Psy 6210, 6220, 6225,6230 ), 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)
Prerequisites: ED PSY 6111 and doctoral standing or consent of instructor. The advanced exploration of foundational issues in Educational psychology. Topics include theoretical perspectives of modes analysis used in the investigation of psychological theories and concepts in Education.

ED PSY 7647 Teaching for Learning in the Univ. (3)
Prerequisites: Graduate standing and consent of the instructor. An examination of current research in learning, 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 Methods (ED REM)

ED REM 3721 Psychoeducational Assessment and Evaluation (3)
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)
Prerequisites: TCH ED 6010 and TCH ED 6020. This course provides the knowledge, skills, and practice for experienced practitioners to engage reflectively in a process of systematic study of their own practice with Educational systems and situated contexts. Educators will learn both analytic and practical tools to document multiple factors that can impact student learning and become more sophisticated consumers of research in order to engage in student advocacy and influence policy decision-making.

ED REM 6497 Problems (1-10)
Prerequisites: 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)
Prerequisite: Graduate admission or consent of instructor. An introductory graduate course to classroom
testing and evaluation. Topic areas include comparison of criterion-and norm-, validity and associated descriptive statistics; derived referenced theory and technique; classical test theory, reliability and transformed scores; preparation of instructional objectives for use in developing the classroom test; performance evaluations, and portfolio rubrics.

## ED REM 6709 Educational and Psychological Measurement (3)

Prerequisite: 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)

Prerequisite: An introductory statistics course or ED REM 6707, or 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 analysis, and components of research reports.

## ED REM 6714 Action Research in Education (3)

Prerequisite: 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)

Prerequisite: 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)
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)

Prerequisite: 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)

Prerequisite: 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 6735 Statistical Analysis for Education Research (3)

Prerequisite: Graduate standing. Provides students with a fundamental and 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 analyses.

## ED REM 6750 Advanced Research Design in Education (3)

Prerequisite: ED REM 6735 or consent of instructor. This 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 I nternship (1-10)

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)

Prerequisite: 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)

Prerequisite: Admission to a Doctoral Program or Consent of Instructor. The role of language in social life is a 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 7771 Quantitative Research Methods I (3)

Prerequisite: 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)

Prerequisite: 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)

Prerequisite: 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)
Prerequisite: 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. Philosophical and ethical issues in qualitative research are presented.

ED REM 7782 Qualitative Methods in Educational Research II (3)
Prerequisite: 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, and data analysis . Requires access to a field setting to conduct a qualitative research study.

## Division of Teaching and Learning

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## UMSL Home

Department of Early Childhood, Elemetary, TESOL, and Special Education Home Page

## Department of Secondary and K-12 Education Home Page

## Faculty

Department of Early Childhood, Elementary, TESOL, and Special Education (ECETS)
Patricia B. Kopetz, Chair, E. Desmond Lee Endowed Professor of Education for Children with Disabilities;
Ed.D., St. Louis University
William C. Kyle, E. Desmond Lee Family Professor of Science Education
Ph.D., University of Iowa
James Shymansky, E. Desmond Lee Family Professor of Science Education
Ph.D., Florida State University
Helene J. Sherman, Professor, Associate Dean for Schools and Community Partnerships
Ed.D., University of Missouri St. Louis
Lloyd Richardson, Curators Teaching Professor
Ph.D., Peabody College of Vanderbilt University
Ed.D., Indiana University
Judith Walker de Felix, Professor, Associate Provost cademic Affairs; Dean of Graduate School
Ph.D., University of Florida
Richard W. Burnett, Professor Emeritus
Ed.D., Indiana University
Doris A. Trojcak, Professor Emerita
Ed.D., Indiana University
Huber M. Walsh, Professor Emeritus
Ed.D., University of California Los Angeles
Rebecca Rogers, Associate Professor
Ph.D., University of Albany-SUNY
Kim Song, Associate Professor
Ed.D., Southern Illinois University-Edwardsville
George J. Yard, Associate Professor Emeritus
Ph.D., Saint Louis University
Ralph Cordova, Assistant Professor
Ph.D., University of California-Santa Barbara
Nicholas Husbye, Assistant Professor
Ph.D. Candidate, University of Indiana-Bloomington
April J. Regester, Assistant Professor
Ph.D., University of California-Santa Barbara
Alina Slapac, Assistant Professor
Ph.D., University of Northern Iowa
Lynn Navin, Lecturer: Director, University Child Development Center
M.Ed., Michigan State University

Margaret Ann Niederberger, Lecturer
M.Ed., Lindenwood University

Nicole Nordin, Lecturer
M.Ed., University of Missouri-St. Louis

Randall Sommers, Lecturer
Ph.D., University of Missouri-St. Louis

## Department of Secondary and K-12 Education

Gayle Wilkinson, Chair, Associate Professor
Ed.D., University of Illinois
Charles Granger, Professor; Curators' Teaching Professor
Ph.D., University of Iowa
Carl Hoagland, Emerson Electric Company Professor in Technology and Learning
Ed.D., University of Massachusetts
Louis Lankford, Des Lee Foundation Endowed Professor in Art Education
Ph.D., Florida State University
Robert Nordman, E. Desmond Lee and Family Fund Endowed Professor
M.M. Saint Louis Conservatory of Music Education

Wendy Saul, Dr. Allen B. and Mrs. Helen S. Shopmaker Endowed Professor for Education in collaboration with
Springboard to Learning
Ph.D., University Wisconsin-Madison
James Wilson, E. Desmond Lee Endowed Professor in Experiential and Family Education
Ph.D., Iowa State University
Kathleen M. Haywood, Professor; Associate Dean for Graduate Education
Ph.D., University of Illinois-Urbana-Champaign
Blanche M. Touhill, Professor; Chancellor Emerita
Ph.D., Saint Louis University
Paul D. Travers, Professor Emeritus
Ed.D., George Peabody College
Harold E. Turner, Professor Emeritus
Ed.D., George Peabody College
Douglas Turpin, Professor Emeritus in Music Education
Ed.D., Washington University
J ane Zeni, Professor Emerita
Ed.D., University of Missouri-St. Louis
Bruce A. Clark, Associate Professor Emeritus
Ph.D., University of Illinois
Charles G. Smith, Associate Professor; Athletic Director Emeritus
M.S., Washington University

Thomas J. Loughrey, Associate Professor
Ph.D., University of Iowa
Jacquelyn A. Lewis-Harris, Associate Professor
Ph.D., Washington University
Jennifer Mishra, Associate Professor
Ph.D., Kent State University
Virginia L. Navarro, Associate Professor
Ph.D., Washington University
Nancy Robb Singer, Associate Professor
Ph.D., University of Missouri-St.Louis
Gwendolyn Turner, Associate Professor
Ed.D., University of Arkansas
Cathy Vatterott, Associate Professor
Ph.D., Saint Louis University
Laura Westhoff, Associate Professor
Ph.D., Washington University
Karen Cummings, Assistant Professor
Ed.D., University of Illinois at Urbana-Champaign
Carol Weber, Lecturer
M.Ed., University of Missouri-St. Louis

## General I nformation

The Division of Teaching and Learning has been divided into two departments: the Department of Early Childhood, Elementary, TESOL, and Special Education (ECETS), and the Department of Secondary and K-12 Education. Faculty offices are located on the 3rd floor in Marillac Hall and in the Mark Twain Building. Information about course offerings and related matters on all programs except physical education may be obtained in 369 Marillac Hall. The physical education offices are located in 234 Mark Twain Building.

The two departments offer five programs leading to a Bachelor of Science (B.S.) in Education degree in:

[^2]
## Secondary Education Special Education

Middle School Education is offered as an endorsement to the Elementary Education degree program.
The Department of Early Childhood, Elementary, TESOL and Special Education (ECETS) offers a non-teaching degree program leading to the Bachelor of Educational Studies (B.E.S.) in the emphasis areas of:

## Early Childhood Education Professional Education

Learning outcomes for students in the B.S., B.E.S., and M.Ed. degrees are listed under the general College of Education section of the Bulletin.

The early childhood undergraduate program is designed for students wishing to teach children from birth through grade three. Students electing this program will work directly with young children as a part of their professional courses.

The graduate program is designed to develop master-level educators through a common core of essential knowledge and experiences drawn from current research and practice in the field of early childhood education. Through this program, candidates are able to further their competencies as educators, directors, program planners, and curriculum developers in various early childhood settings. Students can complete additional course work to receive certification.

The elementary education program prepares students to teach in grades one through six. Students earn an endorsement a program leading to a middle school/junior high teaching certificate.

The graduate program strives to develop and refine the concept of the "teacher as researcher" or the " teacher as reflective decision maker or problem solver." It is based on the premise that as professionals, teachers must understand both the products and findings of research and the underlying processes that influence their professional practice.

Students may choose a program leading to the M.Ed. In education, generalized or specialized elementary education or elementary education with Missouri certification in reading.

The Special Education program prepares students to teach learners with diagnosed conditions, including autism and developmental disabilities, emotional/behavioral disorders, learning disabilities, and ADHD, in K-12 and in Early Childhood Special Education settings. Missouri certification standards require a student teaching experience for students who desire to teach in the area of special education.

## Minor in Literacy

A Minor in Literacy can be earned by successfully completing 18 hours of the following:
ECH ED 3332, Literacy Learning and Instruction for the Young Child
ELE ED 4989, Elementary Education Professional Internship
ELE ED 3330, Literacy, Literature and the Learner
ELE ED 3336, Communication Arts Learning and Instruction
ELE ED 3389, Classroom Based Assessment to Guide Literacy Instruction
TCH ED 3315, Literacy Learning and Instruction
TCH ED 4391, Teaching and Reading in Secondary School Content Area
Minor in Mathematics Education K-5
A Minor in Mathematics Education can be earned by successfully completing 18 hours in the Mathematics
Education field. The following Mathematics Education courses may be applied to a Mathematics Education
Minor:
ECH ED 4348, The Acquisition of Mathematical and Science Concepts
ED TECH 5301, Introduction to Computers and the Internet in Education
ELE ED 4246, Teaching Mathematics in the Elementary School
ELE ED 4342, Addressing Needs in Mathematics Teaching and Learning
ELE ED 4346, Advanced Methods in Elementary School Mathematics
MI D ED 4246, Teaching Mathematics in the Middle School
Mathematics courses (except 1030, $1150 \& 2510$ ) with consent of advisor.
Note: The State Board of Education developed standards for renewable professional certificates, based on specific requirements for training and experience. Details regarding these standards are available in the Teacher Certification \& Advising Office in Marillac Hall.

Minor in Urban Education P-5
A minor in Urban Education P-5 can be earned by successfully completing the following 18 hours of Teacher Education, Early Childhood, and Elementary Education courses. Students must register for the special sections of these courses that are offered in urban settings to meet the requirements of this minor:
ECH ED 4989, Early Childhood Primary Internship or

ELE ED 4989, Elementary Education Professional Internship
ELE ED 3330, Literacy, Literature and the Learner
ELE ED 3336, Communication Arts Learning and Instruction
ELE ED or ECH ED 4320, Classroom Management
ELE ED 4989, Elementary Education Professional Internship or
TCH ED 2311, Foundations in Urban Education and Social J ustice
TCH ED 4988, Teaching and Learning in Urban Schools

## Minor in Teaching English to Speakers of Other Languages P-12

A Minor in Teaching English to Speakers of Other Languages (TESOL) can be earned by successfully completing 18 hours of coursework that is identified to prepare the student to earn a TESOL teaching endorsement as an additional area of teaching certification by the Missouri Department of Elementary and Secondary Education:
TCH ED 3210, General Linguistics in Teaching English to Speakers of Other Languages (TESOL)
TCH ED 3211, Basic Principles of Second and Foreign Language Acquisition
TCH ED 3212, Sociolinguistics and Communication in the Classroom
TCH ED 3213, Performance-based Assessment for TESOL
TCH ED 3214, Material Development and Methods for TESOL
TCH ED 3215, Field Experiences in TESOL

## Bachelor of Educational Studies

The B.E.S. is a professional degree designed for individuals who wish to study Education as a scholarly discipline, but who do not wish to prepare for the professional practice for Education in the K-12 schools of this state or nation. Available emphasis areas include Early Childhood Education and Professional Education Studies.

## Department of Secondary and K-12 Education

The secondary education program prepares students for teaching these subjects in secondary schools (grade 9-12): biology, chemistry, English, mathematics, physics, social studies, Spanish, French, German, music, art, and educational technology. A special feature of these programs is the close interdisciplinary cooperation between the College of Education and other university departments.

Students may also choose to pursue the Bachelor of Arts (B.A.) degree in the College of Arts and Sciences and additional coursework leading to teacher certification.

The physical education program coordinates work in physical education, which leads to a B.S. in education degree with certification to teach either K-9 or K-12. The elementary education and secondary education graduate programs provide courses for graduate students who choose physical education as their teaching field.

At the graduate level, the department provides a program leading to an M.Ed in secondary education with emphasis in: general secondary education; curriculum and instruction; TESOL and secondary reading.

At the graduate level, requisite course work for Missouri certification in secondary education is available, as is the M.Ed. Degree.

Note: The State Board of education developed standards for renewable professional certificates, based on specific requirements for training and experience. Details regarding these standards are available in the Office of Advising and Student Services in 116 South Campus Classroom.

## General Education Requirements

Students follow the university's General Education Requirements.
Communicative Skills
COMM 1040, Intro to Public Speaking
ENG 1100, English Composition
ENG 3100, Advanced Expository Writing
See requirements under specific emphasis area.
Breadth of Study (minimum 42 hours in the following three areas with at least three courses in each area)
Humanities (9 hours)
Sciences
BIOL 1012, Intro to General Biology
Physical Science
Social Sciences
HIST 1001, American Civ to 1865 or
HIST 1002, American Civ 1865 to Present

POL SCI 1100, Intro to American Politics
PSY 1003, General Psychology
Cultural Diversity Course (see General Education section of the Bulletin)
Other Requirements
Degree Requirements - Early Childhood
Mathematical Skills
Math 1030, College Algebra
Math 1150, Math Structures I
Level I: Exploring Education as a Profession
CMP SCI 1010, Introduction to Computers
ED PSY 2212, Intro to Learners and Learning
PSYCH 2270, Develop Psych: Infancy, Childhood, \& Adolescence
TCH ED 2211, Introduction to Schools
TCH ED 2209, Foundations of Teaching in American Schools
Level II: Analyzing the Nature and Processes of Education
ED PSY 3312, Psychology Of Teaching \& Learning
TCH ED 3310, Intro to Instructional Methods
TCH ED 3313, Psychology of the Exceptional Child
Level III: Synthesizing Theory and Practice in Education
ECH ED 3300, Introduction to Early Childhood Education
ECH ED 3303, C\&P: Infant/Toddler Lab
ECH ED 3304, C\&P: Preschool Lab
ECH ED 3313, C\&P: Infant/Toddler
ECH ED 3314, C\&P: Preschool
ECH ED 3332, Literacy, Learning \& Instruction of Young Children
ECH ED 4317, Assessing Individual Needs Early Child
ECH ED 4320, Classroom Management
ECH ED 4348, The Acquisition of Mathematical and Science Concepts
EDUC 2290, Internship
EDUC 2291, Internship
PHY ED 3282, Physical Growth and Motor
SEC ED 4880, Writing for Teachers
Second Concentration: Electives to total 12 hours to be chosen from ECH ED, ELE ED, SPEC ED, ED TECH, ED REM, or an area chosen in consultation with the adviser.

Emphasis in Professional Education Studies
Mathematical Skills
MATH 1020, Contemporary Math or
MATH 1030, College Algebra
Managing Information Skills - Goal 2 (One Course), see General Education requirements section of the Bulletin

Level I, Exploring Education as a Profession
CMP SCI 1010, Introduction to Computers
ED PSY 2212, Intro to Learners \& Learning
TCH ED 2209, Foundations of Teaching in American Schools
Level II, Analyzing the Nature and Process of Education
COMM 2231, Communication in the Organization
ED PSY 3312, Psychology of Teaching \& Learning
TCH ED 3313, Psychology of the Exceptional Child
Level III, Synthesizing Theory and Practice in Education
Entrance into Level III is based on successful completion of all course work in Levels I and II.
30 Hours in the following, numbered 2000 or above: Elementary Education, Special Education, Secondary Education
A second series of courses in education or as approved by the advisor including a minimum of 15 hours of electives.

# College-wide Courses in Education 

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## College of Education Home Page

## EDUC 1000 Effective Career Decision Making for Educators (3)

The First Year Experience (FYE) course is intended for students who are enrolled in their first year of study at the university or those transferring to the university from other institutions. This course introduces students to considerations in choosing future careers, challenges, goals and major responsibilities of the education profession and strategies for succeeding in the university environment. Students will be engaged in participatory activities in class and in assignments outside of class time, visiting schools and community resources and agencies. This course is designed to introduce students to a variety of activities and experiences used in building knowledge of self, academic majors, education careers, college, and the workplace.

## EDUC 2204 Special Topics in Education (1-3)

Prerequisites: 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 2290 Internship I (6)

Prerequisites: Senior standing and consent of instructor. Field experience in educational setting under university supervision. Includes planning, research, evaluation, and other professional activities in the student's area of concentration.

EDUC 2291 Internship II (6)
Prerequisite: Completion of or concurrent enrollment in EDUC 2290. Continuation of EDUC 2290.
EDUC 2297 Independent Study (1-3)
Prerequisites: 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 5006 Graduate Workshop (1-10)

Prerequisite: Consent of instructor.

## EDUC 5993 Practicum in Individualized Instruction (3-6)

Prerequisites: Completion of the course(s) to which assigned for instruction and consent of instructor. Supervised instruction in individualized programs. Seminar accompanies instructional experience. May be repeated.

EDUC 6308 Graduate I nstitute (1-10)
Prerequisite: Consent of instructor.
EDUC 6408 Graduate Seminar (1-10)
Prerequisite: Consent of instructor. Intensive study of selected issues in education.
EDUC 6491 Staff Development and Professional Growth (1-10)
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)
Prerequisite: Consent of instructor
EDUC 7050 The Research Process I: Framing Research Questions within the Education Literature (3)

Same as ED ADM 7050. Prerequisite: 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 7415 Topics in Education (3)
Prerequisite: Admission to the doctoral program. Intensive study of a topic in education.
EDUC 7490 Directed Readings in the Education Research Literature (1-6)
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)
Prerequisite: ED REM 6710. 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. May not substitute for any existing graduate courses that cover same research tool skills.

EDUC 7642 Sociocultural Perspectives in Education (3)
Prerequisite: Doctoral standing or consent of instructor. Investigation of sociocultural theory with a focus on educational applications. Topics include the social formation of mind, language as a cultural tool, methodological issues in social science research, and dialogic inquiry as pedagogy

EDUC 7880 Research I nternship I (3)
Prerequisite: 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)
Prerequisites: EDUC 7880 and consent of instructor. Supervised experience in the conduct of research studies or scholarly inquiry.

EDUC 7882 Research Internship III (3)
Prerequisites: EDUC 7881 and consent of instructor. Supervised experience in the conduct of research studies or scholarly inquiry.

EDUC 7950 The Research Process II: Developing and Refining Education Research Proposals (3)
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 7999 Dissertation Research (1-12)
Prerequisite: Admission to the doctoral program. Credit awarded only upon successful defense of the dissertation.

# Interdisciplinary Studies 

| Course Descriptions

## UMSL Home

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, nondegree 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 academic emphases 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 should be approved at the beginning of the program.

To obtain a Bachelor of Liberal Studies (BLS), a student must complete:

- UMSL General Education Requirements

General Education (consult General Education section of course listings)

- Communication Skills 6 credit hours
- Managing Information 3 credit hours
- Valuing Skills 3 credit hours
- Social and Behavioral Sciences 9 credit hours
- Humanities 9 credit hours
- Math/Science 12 credit hours
- (for a total of 42 credit hours )

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
ENGL 3100-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 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 AND
- A capstone course (minimum of 3 hours) selected from one of the minors that make up the identified BLS core.

Note: (Not all minors have designated BLS capstone course so students must be careful to pair minors and certificates so that they have a capstone course.)

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 with minimum GPA of 2.0 with a minimum grade of $\mathbf{C}$ 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

The College of Arts and Sciences (CAS), Fine Arts and Communication (CoFAC), Business Administration (BA), and the Pierre Laclede Honors College (PLHC) have joined together to make available Liberal Studies combinations involving the following units:

Department of Anthropology, (CAS)
Department of Art and Art History, (CoFAC): Minor in Art History or Studio Art
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 Foreign Languages and Literature, (CAS)
Department of History, (CAS)
Pierre Laclede Honors College (PLHC) *
Department of Mathematics and Computer Science, (CAS)
Department of Music, (COFAC)
Department of Philosophy, (CAS)
Department of Physics and Astronomy, (CAS)
Department of Political Science, (CAS)
Department of Psychology, (CAS)
Department of Sociology, (CAS)
Department of Theatre, Dance and Media Studies, (COFAC)
Gender Studies Program, (CAS)
Any undergraduate certificate

## Bachelor of Liberal Studies: Capstone and Other Restrictions

A. 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.
B. 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.
C. The College of Business is participating, however, NO capstone course will be available for business minors. Students selecting the Business Minor as one of the components for the BLS must select the other minor from among those that do offer a capstone.
D. The Studio Arts minors in the Department of Art and Art History will not have a capstone. Students selecting a Studio Art Minor will have to pair it with a minor that does have a capstone.
E. Undergraduate certificates and Interdisciplinary Minors may be paired with a minor to form a BLS core; however, since certificates and interdisciplinary minors do not have normally capstone courses, they must be paired with a minor that does have a capstone. Students admitted to the Pierre Laclede Honors College 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 to work demonstrably relevant to their BLS program. Students should consult the BLS faculty advisor in the Honors College about this requirement.
F. Either the theatre minor or media studies minor may be used from the Department of Theatre, Dance and Media Studies; however the department offers no capstone at this time. These minors will need to be paired with a minor that does have a capstone.
G. There is no capstone course in Statistics. The student will have to choose a capstone course from either the other area of concentration in Mathematics and Computer Science or another minor.

H . 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.
I. 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 4004 as the capstone. However students selecting HIST

4004 must have also taken HIST 2999.
J. The following have identified a Capstone, so at least one of these minors must be included in the BLS program:

## Anthropology <br> ANTHRO 4301, Ideas and Explanations in Anthropology

## Art \& Art History

One additional 4000 level topics course in Art History

## Biology

BI OL 4889, Senior Seminar
Chemistry/ Biochemistry
CHEM 3022, Introduction to Chemical Literature (1) and CHEM 3905-Chemical Research (1) and CHEM 4897-Seminar (1)

## Communication

One additional 3000/4000 level Communication course.

## Criminology \& Criminal Justice

An additional 4000 level course in Criminology and Criminal Justice, not used as part of the minor.

## Economics

ECON 4100, Introduction to Econometrics [If this course is used to complete the minor, the students must take an additional 4000 level Economic course.]

## English

Additional 4000 level English Literature course [Student must identify themselves as using the additional 4000 level course as a Capstone so additional requirements can be assigned.]

## Foreign Languages and Literatures

FRENCH 3211, Contemporary French Culture
GERMAN 3210, German Culture and Civilization
SPANISH 3210 Hispanic Culture and Civilization: Spain [or]
SPANISH 3211, Hispanic Culture and Civilization: Spanish America
History
HIST 4004, Senior Seminar (5 credits)
Honors College*
HONORS 4100, ( 1 or 2 credit hours) and three to six credit hours of HONORS 4900 or 4910 are required. *(must be admitted to Honors program)

Mathematics/ Computer Science:
Computer Science: 4000 Level Course in Computer Science not counted as elective in the minor.
Mathematics: 4000 Level Course in Mathematics not counted as elective toward the minor.

## Music:

Select one of the following:
M H L T 4000, Directed Studies (3 credits)
THRY COM 4000, Directed Studies ( 3 credits)
PDGOGY 4000, Directed Studies ( 3 credits)
PRACTM 4000, Directed Studies (3 credits)
Philosophy
PHI L 4491, Senior Seminar
Physics
PHYSI CS 4381, Directed Readings in Physics
Political Science
POL SCI 3950, Senior Seminar in Political Science
Psychology
An additional 4000 level Psychology course beyond Psychology courses presented for the Minor
Sociology

## Bachelor of I nterdisciplinary Studies

The Bachelor of Interdisciplinary Studies degree (B.I.S.) provides a flexible, individualized program of study for the self-directed adult learner. Each student develops the area of study with faculty advisement.

Oversight of the B.I.S. degree is the responsibility of the Interdisciplinary Studies committee, composed of faculty from Arts and Sciences (Humanities, Social Sciences, and Natural Sciences), Business, Education, Engineering, Fine Arts and Communication, and Nursing. 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 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 $A, A-, B+, B, B-, C+, C, C-, D+, D, D-$.

Regardless of the focus, theme, or purpose, the area of study should contribute to an advanced level of academic competence and achievement.

## 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 18 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 I nternship and I ndependent 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.

## I nterdisciplinary Certificates

## 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 Biology 1202 (Environmental Biology) and Political Science (3480) 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 ( 9 credit hours):
BIOL 1202, Environmental Biology
BI OL 1821, Introductory Biology: Organisms and the Environment
BIOL 2102, General Ecology
BIOL 3103, General Ecology Laboratory
BIOL 2501, Biology of Plants
BIOL 3122, Tropical Resource Ecology
BIOL 3202, Conservation Biology

BIOL 3203, Conservation Biology Laboratory
BIOL 3302, Introduction to Evolution
BI OL 4102, Behavioral Ecology
BIOL 4192, Applications of Geographic Information Systems
BI OL 4222, Tropical Ecology and Conservation
BIOL 4245, Field Biology
BIOL 4270, Global Climate Change
BIOL 4402, Ornithology
BIOL 4422, Entomology
BIOL 4501, Plant Families
GEOL 1002, Historical Geology
HONORS 2050, Inquires in the Natural Sciences (when topic appropriate)
HONORS 2051, Inquires in the Sciences: Laboratory or Fieldwork (when topic appropriate)
Social Sciences and Humanities ( 9 credit hours):
ANTHRO 1005, Introduction to Biological Anthropology
ANTHRO 3270, Human Ecology: Cultural Collapse and Sustainability
ECON 4160, Geospatial Analysis in the Social Sciences
ECON 4170, Cost-Benefit Analysis
ECON 4550, Natural Resources Economics
I NTBUS 4281/ I NTBUS 5198, Entrepreneurship in the Global Environment
PHIL 2255, Environmental Ethics
POL SCI 3480, Environmental Politics
POL SCI 3595, Studies in Comparative Politics (when topic appropriate)
POL SCI 3850, International Organizations \& Global Problem Solving (when topic appropriate)
POL SCI 3900, Special Readings (when topic appropriate)
POL SCI 4460, Urban Planning and Politics

## Disaster and Risk Management Certificate

The undergraduate certificate program on Disaster and Risk Management offers a multi-disciplinary course of study focusing on the key challenge of developing resilience against disaster-preventing, preparing for, and responding to disasters and catastrophes. It brings together a range of disciplines to provide students with theoretical and practical insights into managing risks posed by natural, accidental, and intentional threats confronting urban communities. The certificate program emphasizes social psychological, organizational, legal, and political relationships brought to bear on the socio-technical systems designed to prevent, prepare for, or respond to disasters and catastrophes. It provides educational and practical opportunities for students planning careers in public safety, counterterrorism, community and research planning, public policy making, emergency management, leadership in the public sector, and the mass media. The certificate program aims to guide students in learning to manage efforts of public and private institutions to build resilience in their own socio-technical systems and in the community. Each discipline participating in the certificate program brings a distinct perspective to bear on the key issues involved in developing resilience in homeland security. Sociology offers a framework on the relationship of socio-technical systems and community organization that will prove conducive to students gaining both theoretical and practical insights into threats posed by disaster and catastrophe.
Undergraduate students earn a certificate on Disaster and Risk Management by completing 18 hours with a GPA of 2.0 or better from the following courses:

```
COMM 3150, Crisis, Disaster, and Risk Communication (3 hrs)
ECON 4160, Geospatial Analysis in the Social Sciences (GIS) (3 hrs)
POL SCI 3200, Constitutional Law (3 hrs)
PSYCH/ GS 2232, Psychology of Victims ( 3 hrs ) OR
SOC 3250 Sociology of Victimization ( 3 hrs )
SOC 4414, Social Perspectives on Catastrophes and Homeland Security Policies (3 hrs)
```

Special topic courses relevant to disaster and risk management may be included in the certificate program when approved in advance by the Coordinator of the Disaster and Risk Management Certificate.

## Evolutionary Studies Certificate (pending CBHE approval)

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 Biology 1999, "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 Biology 3302 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
ASTRO 1011, Planets and Life in the Universe
Biology
BIOL 1202, Environmental Biology
BIOL 1821, Organisms and the Environment
BIOL 1999, Evolution for Everyone (Required core course)
BIOL 2102, General Ecology
BIOL 2012, Genetics
BIOL 2402, Vertebrate Biology
BIOL 2501, Biology of Plants
BIOL 3102, Animal Behavior
BIOL 3122, Tropical Resource Ecology
BIOL 3302, Introduction to Evolution
BIOL 4102, Behavioral Ecology
BI OL 4112, Evolution of Animal Sociality
BIOL 4182, Population Biology
BIOL 4402, Ornithology
BIOL 4422, Entomology
BIOL 4442, Developmental Biology
BIOL 4501, Seed Plant Diversification
Courses in the Social Sciences
Anthropology ANTHRO 1005, Biological Anthropology
ANTHRO 2105, Human Variation
Psychology
PSYCH 1003, General Psychology
PSYCH 2200, Drugs and Behavior
PSYCH 2205, Human Sexuality: Psychological Perspectives
PSYCH 2211, Introduction to Biological Psychology
PSYCH 3205, Evolutionary Psychology
PSYCH 3390, Directed Studies
PSYCH 3500, Health Psychology
PSYCH 4300, Introduction to Psychopharmacology: Drugs and Mental IIIness
PSYCH 4311, Psychology of Nonverbal Behavior
PSYCH 4330, Hormones, the Brain, and Behavior
PSYCH 4349, Human Learning and Memory
PSYCH 4356, Thinking and Cognition
PSYCH 4361, History and Systems of Psychology
PSYCH 4374, Introduction to Clinical Neuropsychology
Courses in the Humanities
English
ENGL 4030, Evolution, Literature, and Film
ENGL 4080, Cognition, Emotion, and Narrative
Philosophy
PHI L 2280, Minds, Brains, and Machines
PHIL 2281, Darwinism and the Philosophy of Biology
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 nonHonors 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. Honors 2010) 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: Choose two of the following courses in History of Science and Technology ( 6 credit hours).

ECON 3800, History of Economic Thought
HIST 2089, History of Ideas in the West
HI ST 2770, Introduction to Transportation
HIST 2772, History of Aviation in American Life
HI ST 2773, Urbanization and Transportation
HI ST 3143, Inquiries in Transnational History: Introduction to the History of Science
(Note: History 3143 is offered under different topics; only the specific topic listed here counts as HPST.)
PHIL 3383, The History of Science in Philosophical Perspective
PHIL 4483, Topics in History and Philosophy of Science
PHI L 4484, Topics in History and Philosophy of Medicine
PSYCH 3400, Conceptual and Historical Foundations of Psychology
2. Philosophy: Philosophy of Science (PHIL 3380) plus one of the following another courses in the philosophy of science ( 6 credit hours).
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
PHI L 4482, Philosophy of Social Science
PHIL 4483, Topics in History and Philosophy of Science
PSYCH 3400, Conceptual and Historical Foundations of Psychology
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).

## 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:

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 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.

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HI ST 2219, U.S. Labor History
ECON 3900, Selected Topic in Economics
POL SCI 1450, Introduction to Labor Studies
POL SCI 3220, Labor Law
POL SCI 3430, Union Leadership and Administration
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## 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

1. The two entry level courses ( 8 credit hours):

BIOL 1811, Introductory Biology: From Molecules to Organisms
PSYCH 2211, Introduction to Biological Psychology
2. One statistics course selected from the list below (3 credit hours):

BIOL 4122, Biometry
MATH 1320, Applied Statistics I
PSYCH 2201, Psychological Statistics
SOC 3220, Sociological Statistics
3. Two elective courses ( 6 credit hours). At least one elective must be taken outside the student's major:

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
HONORS 3050, Advanced Honors Seminar in the Sciences
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: Drigs and Mental Illness
PSYCH 4314, Behavioral Neuroscience
PSYCH 4330, Hormones, the Brain and Behavior
PSYCH 4349, Human Learning and Memory
4. At least 3 credits from two semesters of research experience. 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.
BIOL 4905, Research CHEM 3905, Chemical Research CMP SCI 4880, Individual Studies PHIL 4450, Special Readings in Philosophy PHYSI CS 3390, Research PSYCH 3390, Directed Studies

## 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
Students must take 18 hours chosen from the following list in accordance with the guidelines above:

Anthropology<br>ANTHRO 2173, Archaeology and Cultures of the Biblical World<br>ANTHRO 3244, Religion, Magic, and Science

## Art

*ART HS 2214, Early Christian and Byzantine Art ART HS 2225, Medieval Art

English

* ENGL 2240, Literature of the New Testament
*ENGL 2250, Literature of the Old Testament
* ENGL 4950, Special Topics in Literature
* Note: ENGL 4950 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:

Students must complete at least 12 hours from the following group:

## Criminology and Criminal Justice

CRI MI N 1120, Criminal Law
CRI MI N 4300, Communities and Crime
CRI MI N 4350, Victimology

## Psychology

PSYCH 2232, Psychology of Victims
PSYCH 3295, Selected Projects in Field Placement: Helping Victims of Crime (for three credits only toward certificate).
PSYCH 3390, Directed Studies, if trauma-related topic (for three credits only toward certificate).
Please seek approval of the Coordinator of the Trauma Studies Certificate in advance

```
Social Work
SOC WK 3100, Introduction to Interventive Strategies for Social Work Practice
SOC WK 4601, Abused and Neglected Children
SOC WK 4602, Child Welfare Practicum Seminar
```


## Sociology

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SOC 3250, Sociology of Victimization
```

Students may count up to 6 hours from the following group toward the trauma studies certificate:
Criminology and Criminal Justice
CRI MI N 2230, Crime Prevention
CRI MI N 2240, Policing
CRI MI N 4340, Race, Crime, and J ustice (same as SOC 4340)

## Political Science

POL SCI 2400, Public Administration
POL SCI 2420, Introduction to Public Policy
POL SCI 4940, Leadership and Management in Nonprofit Organizations (same as SOC WK 4940 and SOC 4940)

## Psychology

PSYCH 2160, Social Psychology (same as SOC 2160)
PSYCH 2230, Psychology of Women
PSYCH 2245, Abnormal Psychology
PSYCH 4235, Community Psychology
Social Work
SOC WK 4630, Women's Social Issues
SOC WK 4940, Leadership and Management in Nonprofit Organizations (same as POL SCI 4940 and SOC 4940)

## Sociology

SOC 2102, Introduction to Women's and Gender Studies
SOC 2160, Social Psychology (same as PSYCH 2160)
SOC 3268, Sociology of Conflict
SOC 4340 Race, Crime, and Justice (same as CRIMIN 4340)
SOC 4940, Leadership and Management in Nonprofit Organizations (same as POL SCI 4940 and

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.

## I nterdisciplinary 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.
A. 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.

Anthropology<br>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 I
ENGL 2720, American Literature II

## 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


#### Abstract

Honors HONORS 1230, American Traditions: Social and Behavioral Sciences HONORS 1310, Non-Western Traditions: Humanities HONORS 1330, Non-Western Traditions: Social Sciences 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 1310-1330 can qualify as additional Group A choices when their focus is on Native American traditions.


## Music

M H L T 1060, Introduction to African American Music M H L T 1070, Introduction to J azz

Philosophy
PHIL 3307, American Philosophy
Political Science
POL SCI 1100, Introduction to American Politics
POL SCI 2300, State Politics
POL SCI 2350, Introduction to Urban Politics
B. 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.

## Anthropology

ANTHRO 3250, American Folklore
ANTHRO 3291, 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, Communications in American Politics
COMM 3352, Mass Media in Society
Economics
ECON 2800, History of American Economic Development (same as HIST 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 4930, Studies in Gender and Literature (when appropriate) (same as GS 4930)
ENGL 4950, Special Topics in Literature (when appropriate)

## History

HIST 2012, The Indian in American History, 1600-1900
HI ST 2016, African-American History: From Slavery to Civil Rights
HI ST 2017, African-American History: From Civil Rights to Black Power
HIST 2043, History of Crime and Justice (same as CCJ 3043)
HIST 2219, U.S. Labor History
HI ST 2800, History of American Economic Development (Same as ECON 2800)
HIST 3000, Selected Topics in History (when appropriate)
HIST 3031, History of Women in the United States (same as GS 3031)
HI ST 4004, Senior Seminar ( 5 credits: when appropriate)
HI ST 4013, United States History for the Secondary Classroom

## Honors College

(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.)

HONORS 2010, Inquiries in the Humanities
HONORS 2020, Inquiries in the Fine and Performing Arts
HONORS 2030, Inquiries in the Social Sciences
HONORS 2070, Inquiries in Education
HONORS 3010, Advanced Seminar in the Humanities
HONORS 3020, Advanced Seminar in the Fine and Performing Arts
HONORS 3030, Advanced Seminar in the Social Sciences
HONORS 3070, Advanced Seminar in Education
HONORS 3530, Research Seminar: Social and Behavioral Sciences

## Philosophy

PHIL 4410, Significant Figures in Philosophy (when appropriate)
Political Science
POL SCI 2280, Judicial Politics and Policy
POL SCI 2320, African Americans and the Political System
POL SCI 2380, The Politics of Gender in the United States (same as GS 2380)
POL SCI 3200, Constitutional Law
POL SCI 3210, Civil Liberties

POL SCI 3300, The American Presidency
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 (when appropriate)
Sociology
SOC 1040, Social Problems
SOC 3268, The Sociology of Conflict
SOC 4316, Power, Ideology and Social Movements
SOC 4360, Sociology of Minority Groups (same as GS 4360)
SOC 4380, Selected Topics in Social Policy (when appropriate)
C. 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 form this group, they must be chosen from different departments.

Anthropology<br>ANTHRO 2126, Archaeology of Greater St. Louis<br>ANTHRO 2131, Archaeology of Missouri<br>ANTHRO 2132, Archaeology of North America<br>ANTHRO 2138, African-American Archaeology

## Art and Art History

ART HS 2281, Art Since 1960
Communication
COMM 3332, Intercultural Communications
Criminology and Criminal Justice
CRI MI N 2240, Policing
CRI MI N 4340, Race, Crime and Justice (same as SOC 4340)
English
ENGL 4060, Adolescent Literature
ENGL 4740, Poetry since World War II
ENGL 4760, Modern Drama
ENGL 4770, Modern Poetry
History
HI ST 2001, United States History: Colonial America to 1763
HI ST 2003, United States History: Nationalism and Sectionalism, 1815 to 1860
HIST 2004, United States History: 1860-1900
HI ST 2005, The Modernization of the United States
HI ST 2006, Recent United States History
HIST 2014, American Foreign and Military Affairs, 1900-Present
HI ST 2041, Topics in American Constitutional History
HIST 3031, History of Women in the United States
Media Studies
MEDI A ST 2218, Public Policy in Telecommunication
MEDI A ST 3355, Media law and Regulation
Political Science
POL SCI 2290, Gender and the Law
POL SCI 2420, Introduction to Public Policy
POL SCI 2820, United States Foreign Policy
POL SCI 3330, Introduction to Political Behavior
POL SCI 3460, The Politics of Poverty and Welfare
Social Work
SOC WK 2200, 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 3202, Urban Sociology
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 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:

```
LATI N 1001
LATI N 1002 or GRK ANC }100
GRK ANC }100
and three courses from the following list and any other course approved by the coordinator:
ART HS 2211, Art and Archaeology of the Ancient World
ART HS 2212, Greek Art and Archaeology
ART HS 2213, Roman Art and Archaeology
ART HS 4411, Topics in Ancient Art and Archaeology
ENGL 1200, Myth
GRK ANC 2001, Intermediate Ancient Greek Language and Culture
HIST 2081, Rome: The Republic and Empire
LATI N 2101, Intermediate Latin Language and Culture
PHIL 3301, Ancient Philosophy
PHI L 4401, Plato
PHI L 4402, Aristotle
```


## 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:

I NTDSC 1200, Foundations of Law: An introduction to Legal Studies (crosslisted as POL SCI 1200 and CRIMIN 1200), and five courses from the following list. 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.

BUS AD 1900, Introduction to Personal Law
BUS AD 2900, Legal Environment of Business
BUS AD 3900, Business Law: Contracts, Sales, Secured Transactions, Bankruptcy
BUS AD 3901, Business Law: Negotiable Instruments, Business Organizations
BUS AD 3980, The Law of International Business Transactions
CRIMIN 1100, Introduction to Criminology and Criminal Justice
CRIMIN 1120, Criminal Law
CRI MI N 1130, Criminal Justice Policy
CRIMIN 2250, The Courts
CRIMIN 3345, Rights of the Offender
CRI MI N 4300, Communities and Crime
ECON 2650, Law and Economics
HIST 2041, Topics in American Constitutional History
HIST 2085, Medieval England
MEDI A ST 3355, Media Law and Regulation
PHIL 4487, Philosophy of Law (same as CCJ 4487)
POL SCI 2260, Law, Politics and Society
POL SCI 2280, Judicial Politics and Policy
POL SCI 2290, Gender and the Law
POL SCI 3200, Constitutional Law
POL SCI 3210, Civil Liberties
POL SCI 3260, The Supreme Court
POL SCI 3290, Studies in Public Law

POL SCI 4850, International Law

## Minor in Public Affairs Journalism

The minor in Public Affairs Journalism provides students with an overview of media operations, including basic writing and reporting skills, as well as a specialty area of advanced study. Ordinarily the specialty or cognate area focuses on a particular field, such as consumer affairs, economics, or political science -- areas in which a journalist would specialize. Cognate areas are proposed by students seeking the minor and approved by a faculty committee.

A minimum grade point average of 2.0 is required in the minor. No more than 3 hours credit may be taken on a satisfactory/unsatisfactory basis. A total of 18 hours is required for the minor. At least 12 of the 18 required hours must be taken at UMSL.

## Requirements

## A. Nine hours in communication/ English professional training:

ENGL 3140 or MEDI A ST 3214, News Writing
ENGL 3180, Reporting or MEDI A ST 2212, Broadcast Writing and Reporting
ENGL 4890, Writing Internship, or MEDI A ST 3394, 3396 or 3397, Internship

## B. Nine hours in public affairs at the $\mathbf{3 0 0 0}$ level or above

1.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.
2. 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:
Six courses selected from the following list, at least three courses at the $\mathbf{3 0 0 0}$ level or above. No more than two courses from a single discipline may be included in the minor.

```
Courses Applicable to the Minor
ANTHRO 3250, American Folklore
ART HS 2279, American Architecture
ART HS 3365, The Artist and the City
CRIMIN 2230, Crime Prevention
CRIMIN 4300, Communities and Crime
ECON 3700, Urban and Regional Economics
HIST 3000, Selected Topics in History (when urban or St. Louis history)
POL SCI 2350, Introduction to Urban Politics
POL SCI 3450, Urban Administration
PSYCH 3256, Environmental Psychology
PSYCH 4235, Community Psychology
SOC 1040, Social Problems
SOC 3202, Urban Sociology
SOC 4344, Problems of Urban Community
```


## Course Descriptions

In addition to regular departmental offerings, the College of Arts and Sciences also offers several interdisciplinary courses, listed below. These courses bring together the resources of two or more disciplines to focus on topics that benefit from being studied from the point of view of more than one discipline. In many cases faculty from several departments teach an interdisciplinary course together, giving students the opportunity to experience faculty dialogue on issues in a cross-disciplinary fashion. Most interdisciplinary courses have no prerequisites. Freshman and sophomore students are especially encouraged to take these courses.

## I nterdisciplinary Studies (I NTDSC)

I NTDSC 1000 Special Topics (3)
Topics may vary from semester to semester, however, material will be selected which will focus in the social, economic, historical or political institution of Great Britain.

I NTDSC 1003 University Studies (1)
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.

I NTDSC 1010 I nformation Research \& Success (1)
Students will gain knowledge and develop critical thinking skills to succeed academically by learning to frame meaningful questions; developing an understanding of the structure and content of library and electronic information resources; evaluating information; and using library and information resources as learning tools.

## I NTDSC 1030 Language and Communicative Arts Across the Disciplines (3)

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.

I NTDSC 1999 Big History: From the Big Bang to the Blackberry (9) [C,SS,H]
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. Courses will include lectures from faculty in various Arts and Sciences units, films, field trips and group discussions.

I NTDSC 2170 Aging in America: Concepts and Controversies (3)
Same as SOC 2170, SOC WK 2170, and GERON 2170. This course examines the major theoretical and service issues connected to the study of older adults and their families, using multidisciplinary perspectives. Students are provided with an introduction to the field of aging through an examination of current social issues and controversies. This course emphasizes student involvement through class discussion, and is appropriate for students in the arts and sciences, business, communication, education, and nursing.

# BULLETIN <br> University of Missouri - St. Louis 

# College of Fine Arts and Communication 

Art and Art History | Communication | Music | Theatre, Dance, \& Media Studies |

## UMSL Home

College of Fine Arts and Communication Home Page

## General I nformation

The College of Fine Arts and Communication at the University of Missouri-St. Louis offers undergraduate degree programs in the Departments of Art and Art History, Communication, Music, and Theatre Dance and Media Studies. 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 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, languages and cultures, 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 or may be obtained from Languages and Cultures in the Department of Anthropology, Sociology, and Languages 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 (Music
$1400,1410,1500,1520$, 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 (See Interdisciplinary Programs for complete description).

## Certificate Programs

An undergraduate certificate program is offered in Advertising, Photographic Studies, Public Relations and Nonprofit Organization Management and Leadership. The certificate in Non-Profit Arts Organization Management \& Leadership is currently inactive.

## 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.

# Department of Art and Art History 

Undergraduate Studies | Course Descriptions |
Communication | Fine Arts and Communication | Music | Theatre, Dance, \& Media Studies |

## UMSL Home

Department of Art and Art History Home Page

## Faculty

E. Louis Lankford,Chair, Professor, Des Lee Foundation Endowed Professor of Art Education

Ph.D., Florida State University
Kenneth Anderson, Professor
M.F.A., Southern Illinois University, Edwardsville

Ruth L. Bohan, Professor, Interim Associate Dean
Ph.D., University of Maryland
Yael Even, Professor
Ph.D., Columbia University
Dan Younger, Professor
M.F.A., University of Iowa

Jeanne Morgan Zarucchi, Professor
Ph.D., Harvard University
Jennifer McKnight, Associate Professor
M.F.A., California Institute of the Arts

Phillip E. Robinson, Associate Professor
M.F.A. University of Illinois, Chicago

Gretchen Schisla, Associate Professor
M.F.A., Boston University

J effrey L. Sippel, Professor, BFA Coordinator
M.F.A., Arizona State University

Susan Waller, Associate Professor
Ph.D. Northwestern University
Karen Cummings, Assistant Professor, Art Education Coordinator
Ph.D., University of Illinois at Urbana-Champaign
Terry L. Suhre, Research Professor, Gallery Director
M.F.A., Southern Illinois University, Carbondale

Sharon Callner, Associate Teaching Professor
M.F.A., Northern Illinois University

Lucí Mauricio-McMichael, Associate Teaching Professor
M.F.A., Fontbonne University

Maureen Quigley, Assistant Teaching Professor, Art History Coordinator
Ph.D., University of Texas at Austin
Anuradha Vedagiri, Assistant Professional Practices Professor/Visual Resources Curator
Ph.D., The Ohio State University
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.

## 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.

## Undergraduate Studies

## General Education Requirements

Majors in art history must meet the college and university general education requirements. 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 $(\mathrm{S} / \mathrm{U})$ 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. Our core courses are required:

ART HS 1100, Introduction to Western Art
ART HS 3395, Sophomore/J unior Seminar: Research in Art History
ART HS 4495, Senior Seminar: Methods of Art History
And one course in non-Western art, chosen from 1103,1104, 1105, or 1108 (may be taken concurrently with 1100): ART HS 1103, Pre-Columbian Art and Architecture of Mesoamerica and South America ART HS 1104, Indigenous Arts of North America ART HS 1105, The Arts of Africa ART HS 1108, Introduction to the Arts of Asia

Students must take a minimum of three lower-division courses, one from each of the following categories:

```
Ancient and Medieval
ART HS 2211, Art and Archaeology of the Ancient World
ART HS 2212,Greek Art and Archaeology
ART HS 2213, Roman Art and Archaeology
ART HS 2214, Early Christian and Byzantine Art
ART HS 2225, Medieval Art
Early Modern
ART HS 2235, Italian and Northern European Renaissance Art
ART HS 2238, Italian Renaissance Art
ART HS 2240, French Art and Architecture 1500-1715
ART HS 2245, Baroque Art and Architecture
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Modern and American
ART HS 2250, Nineteenth Century European Art
ART HS 2255, Modern Art
ART HS 2265, History of Photography
ART HS 2270, American Art to 1876
ART HS 2272, American Art since 1876
ART HS 2279, American Architecture
ART HS 2281, Art Since 1960
Students must take 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.

## Media in Art History

ART HS 3303, Media and Technique in Art History
ART HS 3350, Studies in Design
ART HS 3360, Photography and Society
ART HS 3385, Studies in Architectural History

## Themes in Art History

ART HS 3365, The Artist and the City
ART HS 3374, Philosophy of Art
ART HS 3376, Gender in the Visual Arts
ART HS 3391, Selected Themes in Art History
ART HS 3396, The Nude in Art
ART HS 3397, Landscapes Perspectives in Art
ART HS 3398, The Portrait
Professional Studies
ART HS 3387, Professional Internship
ART HS 3388, Saint Louis Art Museum Internship
ART HS 3389, Visual Resources Management
ART HS 3394, Art Criticism
ART HS 3393, Art Museum and Gallery Management

## Topics in Art History

Courses listed as "Topics" at the 4000 level, including but not limited to:
ART HS 4411, Topics in Ancient Art

ART HS 4425, Topics in Medieval Art
ART HS 4435, Topics in Renaissance Art
ART HS 4445, Topics in Seventeenth and Eighteenth-Century European Art
ART HS 4455, Topics in Modern Art
ART HS 4475, Topics in American Art
ART HS 4481, Topics in Contemporary Art
ART HS 4490, Special Study
ART HS 3387, Professional Internship
ART HS 3388, Saint Louis Art Museum Internship
ART HS 3389, Visual Resources Management
ART HS 3394, Art Criticism
ART HS 3393, Art Museum and Gallery Management

Students must also take one course in studio art. Up to nine hours in studio art may be applied toward the B.A. in art history.

Additional hours in art history, up to the maximum of 45, may be completed with electives at the 2000 level or above.

## 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 1140, Drawing I
ST ART 1141, Drawing II
ST ART 1142, Figure Drawing I
ST ART 1150, Design I
ST ART 1151, Design II
ST ART 2240, Drawing III or 1143, Figure Drawing II*
ST ART 1030, Ceramics 1, or 1132, Sculpture 1 or 2251, Design III
9 hours of Studio Art Electives
*Those planning an emphasis in drawing or painting must take ST ART 1142.
Students must complete 45 hours in one of the following emphasis areas:

## Drawing

ST ART 2240, Drawing III
ST ART 2241, Drawing IV
ST ART 2242, Figure Drawing III
ST ART 2243, Figure Drawing IV
ST ART 2250, Composition or Studio Elective
ST ART 3340, Advanced Problems in Drawing I
ST ART 3341, Advanced Problems in Drawing II
ST ART 4495/ 4496, Senior Studio Seminar (6 hours)
6 hours of Painting or Printmaking
12 hours of Studio Art Electives
Graphic Design
ST ART 1210, Graphic Design I
ST ART 1220, Graphic Design II
ST ART 2210, Typography
ST ART 2212, Image Making for Graphic Design
ST ART 2220, Computer Design I
ST ART 2221, Computer Design II

ST ART 3310, Graphic Design III
ST ART 3311, Graphic Design IV
ST ART 3383, Advanced Problems in Graphic Design I
ST ART 3384, Advanced Problems in Graphic Design II
ST ART 4497, Senior Seminar in Graphic Design I
ST ART 4498, Senior Seminar in Graphic Design II
9 hours of Graphic Design Electives
Painting
ST ART 1180, Painting I
ST ART 1181, Painting II
ST ART 2250, Composition or Studio Art Elective
ST ART 2280, Painting III
ST ART 2281, Painting IV
ST ART 3380, Advanced Problems in Painting I
ST ART 3381, Advanced Problems in Painting II
ST ART 4495/ 4496, Senior Studio Seminar (6 hours)
6 hours from the following list:
ST ART 2240, Drawing III
ST ART 2241, Drawing IV
ST ART 2242, Figure Drawing III
ST ART 2243, Figure Drawing IV
12 hours of Studio Art Electives

## Photography

ST ART 1060, Photography I
ST ART 2160, Photography II
ST ART 2250, Composition or Photography Elective
ST ART 2263, Digital Color Process
ST ART 2265, Commercial Applications in Photography I
ST ART 2267, The Constructed Photograph
ST ART 3260, Photography III
ST ART 3391, Advanced Problems in Photography I
ST ART 3392, Advanced Problems in Photography II
ST ART 4490/ 4491, Senior Studio Seminar ( 6 hours)
6 hours of Studio Art Electives
6 hours of Photography electives

## Printmaking

ST ART 1170, Printmaking I
ST ART 2241, Drawing IV
ST ART 2243, Figure Drawing IV
ST ART 2250, Composition or Studio Art Elective
ST ART 2271, Printmaking II
ST ART 2274, Printmaking and Relief
ST ART 3370, Advanced Problems in Printmaking I
ST ART 3371, Advanced Problems in Printmaking II
ST ART 4495/ 4496, Senior Studio Seminar (6 hours)
6 hours from the following list:
ST ART 1173, Printmaking: Screen Printing I
ST ART 2272, Printmaking: Lithography I
ST ART 2273, Printmaking: Etching
ST ART 2277, Printmaking: Photolithography
ST ART 3372, Advanced Lithography
9 hours of Studio Art Electives, including one course in photography

## General Fine Arts

30 hours of studio art electives must be taken at the 2000 level or above.
The following courses are required:
ST ART 2250, Composition or Studio Art Elective
ST ART 4495/ 4496, Senior Studio Seminar (6 hours)
Select 6 hours from the following:
ST ART 3340, Advanced Problems in Drawing I and
ST ART 3341, Advanced Problems in Drawing II or
ST ART 3370, Advanced Problems in Printmaking I and
ST ART 3371, Advanced Problems in Printmaking II or
ST ART 3380, Advanced Problems in Painting I and
ST ART 3381, Advanced Problems in Painting II or
ST ART 3391, Advanced Problems in Photography I and

## 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, ST ART 4491, ST ART 4495, ST ART 4496, ST ART 4497, and ST ART 4498.

## 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. The General Education Requirements (G.E.R.) of the College of Education as well as the College of Fine Arts and Communication must be fulfilled. 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. Students must also complete 15 hours of art history. 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.

## I . Foundation Art for Art Education

(10 courses; 30 hours if taken at UMSL):
ST ART 1030, Ceramics I
ST ART 1133, Introduction to Fibers and Textiles
ST ART 1140, Drawing
ST ART 1141, Drawing II
ST ART 1142, Figure Drawing I
ST ART 2240, Drawing III
OR
ST ART 1143, Figure Drawing II
ST ART 1150, Design I
ST ART 1151, Design II
ST ART 1170, Printmaking I
OR
ST ART 1173, Printmaking: Screen Printing I
ST ART 1180, Painting I
II. Studio Art for Art Education (7 courses; 21 hours if taken at UMSL):

ST ART 1061, Intro to Digital Photography
OR
ST ART 2220, Computer Design I
ST ART 1132, Sculpture I
6 hours of Studio Art Electives
In addition, students must complete at least three courses in one of the following areas: drawing, graphic design, painting, photography, or printmaking.

## III. 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 Teacher Education for the most complete and current admission information.

Art Education certification candidates must complete the following courses:
Level I: Exploring Education as a Profession
TCH ED 2209, Foundations of Teaching and American Schools
TCH ED 2212, Introduction to Learners and Learning
Level II: Analyzing the Nature and Process of Education
TCH ED 3310, Introduction to Instructional Methods
TCH ED 3312, Psychology of Teaching and Learning
TCH ED 3313, Psychology of the Exceptional Child
TCH ED 4391, Teaching Reading in Secondary School Content Areas
OR
TCH ED 3315, Literacy, Learning, and Instruction

ART ED 3328, Art Education: Theory to Practice (same as SEC ED 3328)
ART ED 4260, Art Museum as Teaching Resource

## Level III: Synthesizing Theory and Practice in Education

ART ED 4273, Curriculum and Methods of Teaching Art (same as SEC ED 4273)
SEC ED 4496, Student Teaching in Elementary Art
SEC ED 4497, Student Teaching in Secondary Art
SEC ED 4989, Secondary Education Professional Internship

## 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 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, Drawing I
ST ART 1141, Drawing II
ST ART 1150, Design I
and two consecutive courses ( 6 hours) in any single area to be selected from the following (students should be aware that courses are not always available in all areas):

Painting
Printmaking (any one subfield)
Photography
Graphic Design
Advanced Drawing
plus a studio art elective: one three-hour course.

## 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, Photography I
ST ART 2160, Photography II
ART HS 2265, History of Photography
ST ART 3260, Photography III, or I NTDSC 3390, Independent Studies in Photographic Studies
ART HS 3360, Photography and Society
Students must also take at least one 3-hour course selected from the following departmental offerings.

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ART HS 1100, Introduction to Western Art
ST ART 2262, Color Photography I
ST ART 2263, Digital Photography
ST ART 2264, Non-Silver Photography
ST ART 2268, Video Art I
ST ART 2277, Printmaking: Photolithography
ST ART 3260, Photography III
ST ART 3263, Digital Color Portfolio
ST ART 3363, Color Photography
ST ART 3364, Video Art II
ART HS 3374, Philosophy of Art
ST ART 3390, Special Studies
ST ART 3391, Advanced Problems in Photography I
ST ART 3392, Advanced Problems in Photography II
BIOL 4784, Techniques in Electron Microscopy
COMM 1050, Introduction to Mass Media
COMM 1070, Introduction to Cinema
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COMM 2210, Television Production
ENGL 3140/ COMM 3214, News Writing
ENGL 3150, Feature Writing
I NTDSC 3390, Independent Studies in Photographic Studies
PSYCH 2213, Principles of Perception

## 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.

Art education has been identified by the Missouri Department of Elementary and Secondary Education as an area of critical need. With over 300 art teachers in the greater St. Louis region alone, there is a demand for art teachers statewide each year.

# Department of Communication 

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## UMSL Home

Department of Communication Home Page Faculty

Alan D. Heisel, Associate Professor, Chairperson
Ed.D., West Virginia University
Alice E. Hall, Associate Professor, Graduate Program Coordinator
Ph.D., University of Pennsylvania
Lara Zwarun, Associate Professor
Ph.D., University of California - Santa Barbara
Su Ahn Jang, Assistant Professor
Ph.D., University of Texas
Amber Reinhart, Assistant Professor
Ph.D., University of Buffalo
Yan Tian, Assistant Professor
Ph.D., Temple University
Jina Yoo, Assistant Professor
Ph.D., Michigan State University
Elizabeth Kizer, Associate Professor Emerita
Ph.D., Purdue University
Donald Shields, Professor Emeritus
Ph.D., University of Minnesota
Clark McMillion, Teaching Professor, Internship and Practicum Coordinator
M.A., State University College of New York at Brockport

Leighanne Heisel, Associate Teaching Professor, Online Program Coordinator
M.A., West Virginia University

Alan Akerson, Assistant Teaching Professor, PR Sequence Coordinator
M.A., University of Missouri-St. Louis

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.

## 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 have demonstrated 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 (including Disaster and Risk Management and Secondary Education). For more information, see Certificate Programs and Interdisciplinary Studies in this Bulletin.

## 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.

## Undergraduate Studies

## General Education Requirements

Majors must satisfy the university and college general education requirements. 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, Interpersonal Communication I
COMM 1050, Introduction to Mass Communication
COMM 2231, Communication in the Organization
COMM 3330, Research Methods in Communication I
COMM 3332, Intercultural Communication
At least 3 hours from either the practicum (1193) or internship (3393) courses.

## 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.

## Minors in Communication

Coursework for a minor in Communication consists of 15 semester hours of the core requirements for the major. Credit hours in COMM 1195 and/or COMM 3395 may be substituted for credit hours listed below with written consent of the communication department chairperson.

Core Requirements:
COMM 1030, Interpersonal Communication I

COMM 1050, Introduction to Mass Communication
COMM 2231, Communication in the Organization
COMM 3330, Research Methods in Communications I
COMM 3332, Intercultural Communication
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 24 credit hours in the designated courses.

Required Coursework (18 credit hours):
COMM 1150, Introduction to Public Relations (3)
COMM 3358, Communication in Public Relations (3)
COMM 3360, Health Communication in Mass Mediated Contexts (3)
COMM 4035, Integrated Approaches to Public Relations, Advertising, and Promotion (3)
COMM 4100, Communication Campaigns (3)
COMM 4199, Applied Public Relations (3) or COMM 4393, Internship in Applied Communication (3)
Elective Coursework (minimum of 6 credit hours required):
COMM 1050, Introduction to Mass Communication (3)
COMM 1135, Communication Theory (3)
COMM 2231, Organizational Communication (3)
COMM 2232, Communication in Organizations: Tools for Leadership (3)
COMM 2240, Persuasive Communication (3)
COMM 3330, Research Methods in Communication I (3)
COMM 3395, Special Topics in Communication (3)
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 and ENGL 3600, The Curriculum and Methods of Teaching English (same as SEC ED 3600).

## 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 $\mathbf{3 . 2 5}$ 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, I nternational 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 6400, Seminar in Communication Theory

COMM 6405, Introduction to Communication Research Methods
COMM 6411, Seminar in Mass Communication
COMM 6431, Seminar in Organizational Communication
COMM 6435, Seminar in Advanced Applied Communication Research
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:

COMM 5000: ACP-Elements of Public Speaking (3 credit hours) [R]
COMM 5010: ACP-Elements of Debate (3 credit hours) [R]
COMM 5020: ACP- Persuasion and Influence ( 3 credit hours) [R]
COMM 5050: ACP-Special Topics in Communication (3-6 credit hours, may be repeated).* [E]
COMM 5099: ACP-Implementation and Observation (3 credit hours).* [R]

* Pre-requisites: Students must have completed or currently be enrolled in each of the following courses: COMM 5000, COMM 5010, COMM 5020
[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.


## 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.

## Course Descriptions

Prerequisites may be waived by consent of the instructor.
COMM 1000 Effective Communication for College (3)
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) [C]

Introduction to the theories of interpersonal communication. Emphasis on basic principles involved in one-toone interactions.

COMM 1040 Introduction to Public Speaking (3) [C]
Theories and techniques of organization, evidence, argumentation, persuasion, and delivery in public speaking.
COMM 1041 Presentational Speaking (3)
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) [C] [P]

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) [P]
Survey of elements and processes critical to human communication behavior. Comparison of influential communication theories.

## COMM 1150 Introduction to Public Relations (3) [PR]

Prerequisite: COMM 1040 or 1050. 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 1193 Practicum in Applied Communication (1-3)

Prerequisite: Consent of instructor. Practicum work at any of the UMSL public relations offices, sports and school newspapers, Office of Research or Photography Services. Work must be done on campus, under supervision of a working professional in the field, in consultation with a faculty member.

COMM 2230 Small Group Communication (3)
Prerequisite COMM, 1040. Development of communication skills needed in small group decision making. Application of these skills to contemporary problems.

COMM 2231Communication in the Organization (3) [C] [P]
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: Tool for Leadership (3) [P]
Telecourse 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) [P]

Prerequisite: COMM, 1040. A study of persuasive communication, including theories, techniques, forms, functions, applications, potential, and limitations for the individual and organizations. Insights from both classical rhetoric and contemporary communication theory.

COMM 2243 Communication in American Politics (3)
Prerequisite: COMM, 1040. Analysis of audience response and media preferences in political campaigns, campaign speeches, candidates' uses of television and other mass media, and measuring effectiveness of campaign communications.

COMM 2250 Strategic Communication (3)
Prerequisite: COMM 1135 or consent of instructor. Principles of message construction in oral, written, and/or mediated communication. Emphasis is placed on logical reasoning, audience analysis, message structure, and attainment of communication goals.

COMM 3130 Advanced I nterpersonal Communication (3)
Prerequisite: COMM 1030. Continuation of COMM 1030, focusing on contemporary theories and research regarding interpersonal relationships.

COMM 3150 Crisis, Disaster, and Risk Communication (3)
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) [C] [P]
Prerequisite: COMM 1135. 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) [C]
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 3336 Communication in Advertising (3)
Prerequisites: COMM 1050 and J unior standing or consent of instructor. Overview of components in persuasive
messages and how advertising messages and campaigns use various media to reach target audiences.
COMM 3337 Male/ Female Communication (3)
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)
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 3350 Physiological Measurement in Communication (3)

Prerequisites: COMM 1135, COMM 3330, Junior standing, or consent of instructor. Overview of physiological measurement techniques found in classic and contemporary communication research. Conceptual and practical elements are emphasized.

COMM 3352 Mass Media in Society (3)
Prerequisite: 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 3358 Communication in Public Relations I (3) [PR]
Prerequisite: 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 Health Communication in Mass Mediated Contexts (3) [PR]

Prerequisite: COMM 1050 or consent of instructor. Examination of the theories and literature dealing with the role of mass media in health behavior. Topics include health promotion and prevention campaigns and the effect of news and entertainment media on health behaviors.

COMM 3361 Health Communication in Interpersonal and Organizational Contexts (3)
Prerequisites: COMM 1030 and COMM 2231, or consent of instructor. Examination of the theories and literature dealing with the role of interpersonal organizational communication in health behavior and health care organizations.

COMM 3362 Storytelling (1-3)
Prerequisite: Junior standing or consent of instructor. This 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.

## COMM 3392 Administration of Cocurricular Activities (3)

Prerequisite: COMM 1040 or Consent of Instructor. A survey of skills required to administer the various cocurricular activities associated with teachers who teach speech and communication courses in the secondary schools. Practical experience in skills such as: operation of debate tournaments, public speaking competitions, and mock trial competitions.

## COMM 3395 Special Topics in Communication (3) [P]

Prerequisite: Senior or graduate standing. 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)
Prerequisite: 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)

Prerequisite: 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)

Prerequisite: 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 and Conflict (3)

Prerequisite: 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 Problems in Children (3)

Prerequisite: COMM 1030, junior standing or consent of the instructor. A review of communication research on developmental difficulties in children. Theories of communication, language development, acquisition, correction, and implementation are discussed.

COMM 3600 Communication and Families (3)
Prerequisite: 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)
Prerequisite: 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)
Prerequisite: 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)
Prerequisite: 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 I ntegrated Approaches to Public Relations, Advertising, and Promotion (3) [PR] Prerequisite: COMM 3358, junior standing, or consent of the 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) [PR]
Prerequisites: 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) [P]

Prerequisites: COMM 1150, COMM 3358, COMM 4035, 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 4390 Directed Readings (3)

Prerequisite: Consent of instructor; not open to students who have any Y or delayed grades outstanding. Supervised independent study involving readings, conferences, papers, etc., in one of the department's disciplines: communication theory and rhetoric, or mass communication.

## COMM 4391 Supervised Research (1-5)

Prerequisites: Junior/senior standing and consent of instructor; not open to students who have any Y or delayed grades outstanding. Supervised field or laboratory research, data collection, literature searches, qualitative or quantitative data analysis, report writing and other techniques used by communication researchers. Repeatable, but no more than 5 credit hours may be earned in supervised research courses.

## COMM 4393 Internship in Applied Communication (3-6) [C] [P]

Prerequisites: Senior standing, with a least 12 hours of course work in Communication, consent of instructor; open to communication majors only. Advanced practical work in business and organizational communication, public relations, or campaign communication. Work must be done under the supervision of a working professional in consultation with a faculty member. Repeatable, but no more than six hours total credit may be earned in internship courses toward the 36-hour minimum required for the degree.

## COMM 5000 ACP- Elements of Public Speaking (3)

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)
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)
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 Program.

COMM 5050 ACP-Special Topics (3-6)
Prerequisites: COMM 5000, 5010, and 5020, Special Consent. This rotating topics 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)
Prerequisites: COMM 5000, 5010, 5020 and 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 6454 Seminar in Communication Systems and Technologies (3)
Prerequisite: Graduate Standing. Examines innovation in modern communications technologies, their impact on society, and their contribution to the information revolution.

COMM 6492 Practicum in Computer-Mediated Communication (1-3)
Prerequisite: Graduate Standing, Special Consent Collaborative research with a faculty member on a communication topic of mutual interest. May be repeated up to 6 hours.

## COMM 6495 Seminar in Special Topics in Communication (3-9)

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 6498 Thesis Research and Preparation (1-10)
Prerequisite: Graduate standing. Individual research for and preparation of the graduate thesis.
COMM 6499 Graduate I nternship (3-6)
Prerequisites: Graduate standing and approval of graduate coordinator. Individual on-site internship in organizational or mass communication setting.

COMM 6500 Seminar in Communication Theory (3)
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)
Prerequisite: 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)
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, metaanalysis, and non-parametric statistical methods. Required of all graduate communication students.

## COMM 6600 Seminar in Organizational Communication (3)

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 6700 Seminar in Mass Communication (3)
Prerequisite: 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 6900 Directed Readings in Communication (1-10)

Prerequisites: 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)
Prerequisites: Graduate standing and consent of instructor. Primary research on specific topic 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.
[C] = Core course required for major or minor in Communication
[P] = Course fulfills elective requirement for Certificate in Public Relations
[PR] = Course is required for Certificate in Public Relations
[GC] = Graduate core course required for the Master of Arts in Communication degree

## Department of Music

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## UMSL Home

Department of Music Home Page

## Faculty

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M.M., Saint Louis Conservatory of Music

Diane Touliatos, Curators' Professor
Ph.D., The Ohio State University
Douglas Turpin, E. Desmond Lee, Professor Emeritus of Music Education
D.Ed., Washington University

Fred Willman, Founders Professor
Ph.D., University of North Dakota
Barbara Harbach, Professor
D.M.A., University of Rochester, Eastman School of Music

John Hylton, Dean Emeritus, Professor Emeritus
D.Ed., Penn State University

Kenneth E. Miller, Professor Emeritus,
Ph.D., Northwestern University
Evelyn Mitchell, Professor Emerita
Arnold Perris, Professor Emeritus
Ph.D., Northwestern University
Robert J. Ray, Professor Emeritus
B.M., Northwestern University

James Richards, Interim Dean, College of Fine Arts and Communication, Professor,
Ph.D., University of Rochester, Eastman School of Music
Kurt S. Baldwin, Associate Professor, Arianna String Quartet
M.M., New England Conservatory of Music

James E. Henry, Associate Professor
Ph.D., Washington University
John McGrosso, Associate Professor, Arianna String Quartet
M. M., Juilliard School of Music

Joanna Mendoza, Associate Professor, Arianna String Quartet
M. M., J uilliard School of Music

Jennifer Mishra, Associate Professor
Ph.D., Kent State University
Wm. Thomas Walker, Associate Professor, Dean, Continuing Education and Outreach
D.A., University of Northern Colorado

Zachary Cairns, Assistant Professor
Ph.D., University of Rochester, Eastman School of Music
Stella Markou, Assistant Professor
M.M., Cleveland Institute of Music

Julia Sakharova, Assistant Professor, Arianna String Quartet
M.M., Juilliard School of Music

J ames Widner, Teaching Professor, (J azz Studies)
M.A., Memphis State University

Gary Brandes, Associate Teaching Professor
M.M., University of Missouri-Columbia

Alla Voskoboynikova, Associate Teaching Professor (Piano)
M.M., Gnessins Academy of Music-Moscow, Russia

Matthew Henry, Assistant Teaching Professor, (Percussion)
M. M., Webster University

Kathryn Haggans, Associate Adjunct Professor (Voice)

Ph.D., University of Arizona
Aurelia Hartenberger, Associate Adjunct Professor (Music Education)
Ed.D, Washington University
Billie Jo Derham, Teaching Assistant Professor (Piano)
M.M., Southern Illinois University-Edwardsville
D. Allen Beeson, Adjunct Lecturer (Jazz Studies)
B. S., University of Missouri-Columbia

Lisa Blackmore, Adjunct Lecturer (Trumpet)
D.M.A., University of Illinois-Urbana

Tod Bowermaster, Adjunct Lecturer (French Horn)
B.M., Northwestern University

Whitney Cairns, Adjunct Lecturer (Aural Training)
M.M., Eastman School of Music

Kimberly Cowell, Adjunct Lecturer (Music Education)
M.M., University of Missouri-St. Louis

Roger Davenport, Adjunct Lecturer (Trombone, Euphonium, Tuba)
B.M., Millikin University

Jan Davis, Adjunct Lecturer (String Pedagogy)
Ph.D., St. Louis University
Gail Fleming, Adjunct Lecturer (Music Education)
Ed.D, University of Missouri-St. Louis
Adrianne Honnold, Adjunct Lecturer (Saxophone)
M. M., University of Illinois-Urbana

Ann Homann, Adjunct Lecturer (Oboe)
M.M., St. Louis Conservatory of Music

Robert How ard, Adjunct Lecturer (Orchestra Conductor)
M.M., Michigan State University

Hugh Jones, Adjunct Lecturer (J azz Studies)
M.M., Southern Illinois University at Edwardsville

Paula Kasica, Adjunct Lecturer (Flute)
B.M., St. Louis Conservatory of Music

Kenneth W. Kehner, Adjunct Lecturer (Jazz Piano)
B.M., Truman State University

Theresa Langerak, Adjunct Lecturer (Harp)
B.A., Southeast Missouri State University

Stephen Morton, Adjunct Lecturer (Voice)
M.M., University of Tennessee

Robert Mottl, Adjunct Lecturer (Bassoon)
M. M., Indiana University

Alan Rosenkoetter, Adjunct Lecturer (Guitar)
B. S., Washington University

John Smith, Adjunct Lecturer (Music Education)
M. M., University of Oklahoma

Sue Stubbs, Adjunct Lecturer (Double Bass)
M.M., University of Missouri-Columbia

J eanine York-Garesche, Adjunct Lecturer (Clarinet)
M.M., St. Louis Conservatory of Music

Susan Werner, Adjunct Lecturer (Voice)
M.M., University of Illinois-Champaign-Urbana

Meiko Hironaka-Bergt, Specialist (Piano)
M.M. Toho Academy of Music

Deborah Mihok, Specialist (Piano)
B.M.E., University of Missouri-St. Louis

Vera Parkin, Specialist (Piano)
M.M., Southern Illinois University at Edwardsville

Donna Pyron, Specialist (Piano)
B.M., University of Missouri-Columbia

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.

## 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). Music 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 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
EN PER 1410, The University Singers
EN PER 1420, University Concert Band
EN PER 1500, University Orchestra
EN PER 1520, University Symphonic Band
EN PER 1530, University Wind Ensemble
EN PER 1541, Chamber Ensemble Brass
EN PER 1542, Jazz Combo
EN PER 1543, Chamber Ensemble Percussion
EN PER 1544, Chamber Ensemble Strings
EN PER 1545, Chamber Ensemble Voice
EN PER 1546, Chamber Ensemble Woodwind
EN PER 1550, Jazz Ensemble
EN PER 1560, Opera Workshop
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.

## Undergraduate Studies

## General Education Requirements

General education requirements 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. MHLT 1150, Drumming Cultures of the World; MHLT 1160, Musical Journey through Latin America; MHLT 1170, Musical Journey through the Far East; or MHLT 1180, Musical J ourney 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 3440-3459 or AP MUS 4440-4459. This examination is usually taken at the same time as the applied music jury for the fourth semester of enrollment in AP MUS 1440-1459.

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 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, Piano Proficiency IV, or equivalent for instrumentalists, or PRACTM 3290, 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:

```
Music Theory
THRY COM 1300, Introduction to Music Theory
THYR COM 1301, Theory of Music I
THYR COM 1302, Aural Training I
THYR COM 1311, Theory of Music II
THYR COM 1312, Aural Training II
THYR COM 2301, Theory of Music III
THYR COM 2302, Aural Training III
THYR COM 2311, Theory of Music IV
THYR COM 2312, Aural Training IV
THYR COM 3410, Orchestration
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Piano Proficiency
PRACTM 1140, Piano Proficiency I
PRACTM 1150, Piano Proficiency II
PRACTM 2160, Piano Proficiency III
PRACTM 2180, Piano Proficiency IV

## Music History and Literature

M H L T 1010, History of Western Music I
M H L T 1020, History of Western Music II
and at least one upper level history course 4000-4280.
Applied Music
AP MUS 1460, AP MUS 3460, AP MUS 4460, Seminar in Pedagogy and Literature
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:
MHLT 1150, Drumming Cultures of the World; OR
MHLT 1160, Musical J ourney through Latin America; OR
MHLT 1170, Musical J ourney through the Far East; OR
MHLT 1180, Musical J ourney through Africa
PRACTM 2510, Conducting I
PRACTM 3920, Senior Research
Applied Area
8 credit hours of private lessons

## Ensemble

4 hours maximum credit
Foreign Language
Candidates for the B.A. degree in Music are required to complete 13 credit hours or the equivalent in proficiency in one foreign language. 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:

## General Education Requirements

All of the courses in the General Education Requirement Area must be a minimum of two semester hours. Other General Education requirements include the following:

## Communication Skills

At least two courses in English composition and one in oral communications.

## Social Studies

Courses in American history, American government and general psychology.

## Natural Science

One course in physical or earth science; one course in a biological science. At least one of these courses must have a laboratory component.

Mathematics
One college-level mathematics course.

## Applied Area

7 credit hours of private lessons
Practicum
PRACTM 2510, Conducting I
I nstrumental Certification
PDGOGY 1250, 1260, 1270, 1280, Instrumental Techniques
PRACTM 2610, Instrumental Literature Laboratory
PRACTM 3521, Conducting II - Instrumental
Vocal Certification
PRACTM 1250, Singer's Diction: English, Italian and German
PRACTM 1260, Singer's Diction: Latin, French, and Spanish
PRACTM 2611, Elementary School Choral Literature Laboratory
PRACTM 3190, Piano Proficiency V
PRACTM 3290, Piano Proficiency VI
PRACTM 3522, Conducting II - Choral
PRACTM 3621, Junior - Senior High School Choral Literature Laboratory
THRY COM 3420, Choral Arranging
Vocal certification students whose applied area is not voice must consult an advisor for additional courses.

## Ensemble

4 hours maximum credit
Curriculum and Methods of Teaching

* MUS ED 3570, Curriculum and Methods of Teaching Elementary School Music
* MUS ED 3670, Philosophic and Practical Foundations of the Secondary Music Education Curriculum

I nstrumental Certification

* MUS ED 3680, Curriculum and Methods of Teaching Instrumental Music I
* MUS ED 3700, Curriculum and Methods of Teaching Instrumental Music II


## Vocal Certification

* MUS ED 3710, Curriculum and Methods of Teaching Secondary Choral Music
*Must be taken in residence before enrolling in SEC ED 3293 and SEC ED 3294.


## 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.

Professional Education and Student Teaching
Level I Courses :
TCH ED 2209, Foundations of Teaching and American Schools
TCH ED 2212, Introduction to Learners
Level II Courses:
TCH ED 3312, Psychology of Teaching and Learning
TCH ED 3313, Psychology of the Exceptional Child
TCH ED 4320, Classroom Management; any 4320 classroom management course will fulfill the requirement.
TCH ED 4391, Teaching Reading in Secondary School Content Area
Level III Courses:
SEC ED 3293, Student Teaching in Music, K-6
SEC ED 3294, Student Teaching in Music 7-12
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:
M H L T 1090, Non-Western Music I,
MHLT 1150, Drumming Cultures of the World; OR
MHLT 1160, Musical J ourney through Latin America; OR
MHLT 1170, Musical J ourney through the Far East; OR
MHLT 1180, Musical J ourney through Africa
PDGOGY 1560, Piano Pedagogy (Keyboard students only)
PRACTM 2510, Conducting I
THRY COM 3110, Analysis of Twentieth-Century Techniques
THRY COM 3120, Tonal Counterpoint
PRACTM 3190, Piano Proficiency V (voice majors only)
PRACTM 3290, Piano Proficiency VI (voice majors only)
PRACTM 3521 or PRACTM 3522, Conducting II
PRACTM 3920, Senior Research

## Music History and Literature

An additional upper level course M H L T 4000-4280, is required.

## Applied Area

12 credit hours of Applied Music, including 8 credit hours of AP MUS 4440-4459 level, including required junior and senior recitals.

Students in Applied Music must pass a junior-standing exam to confirm their level of performance skills for enrollment in AP MUS 4440-4459.

## Ensemble

Participation is required as follows:
Large Ensemble--4 hours maximum credit
Chamber Ensemble/Accompanying--6 hours

## 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.

## 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, prerequisites to the required business administration courses:
PSYCH 1003, General Psychology, or SOC 1010, Introduction to Sociology ECON 1001, Principles of Microeconomics

## Applied Area

8 credit hours of applied music

## Music History and Literature:

MHLT 1150, Drumming Cultures of the World; OR
MHLT 1160, Musical J ourney through Latin America; OR
MHLT 1170, Musical J ourney through the Far East; OR
MHLT 1180, Musical J ourney through Africa
One additional course from MHLT 4000-4459 is required.

## Practicum

PRACTM 2510, Conducting I
Ensemble
4 hours maximum credit
I nternship
PRACTM 4920, Internship (replaces PRACTM 3920 Senior Research in Core Curriculum)

## English

One of the following English courses is required:
ENGL 3100, Advanced Expository Writing
ENGL 3120, Business Writing
ENGL 3130, Technical Writing

## Business Administration

The following courses in business administration are required:
ACCTNG 2400, Fundamentals of Financial Accounting
ACCTNG 2410, Managerial Accounting
MGMT 3600, Management as a Behavioral Science I
MKTG 3700, Basic Marketing
Two courses selected from the following list must also be taken:
ACCTNG 3441, Income Taxes
BUS AD 3900, Business Law: Contracts, Sales, Secured Transactions, Bankruptcy
BUS AD 2900, Legal Environment of Business
FI NANCE 3500, Financial Management
I NFSYS 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

## Curricula for Minors

Minor in Music
Candidates must complete the following courses (27 hours):
Music Theory
THRY COM 1300, Introduction to Music Theory
THRY COM 1301, Theory of Music I
THRY COM 1302, Aural Training I
THRY COM 1311, Theory of Music II
THRY COM 1312, Aural Training II
Music History and Literature
M H L T 1010, History of Western Music I or

M H L T 1020, History of Western Music II
Any M H L T course 4220-4280

## Applied Area

4 credit hours of private lessons
Ensemble
2 credit hours (4 hours maximum credit)
Six additional credit hours to be chosen from courses such as the following:
PRACTM 2160, Piano Proficiency III (Prerequisite: PRACTM 1150)
PRACTM 2180, Piano Proficiency IV
PDGOGY 1560, Piano Pedagogy
PDGOGY 1530, Accompanying I
THRY COM 2301, Theory of Music III
THRY COM 2302, Aural Training III
THRY COM 2311, Theory of Music IV
THRY COM 2312, Aural Training IV
THRY COM 3410, Orchestration
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 PRACTM 1150 or equivalent.
A GPA of 2.5 for all music hours is required to complete this minor.

## Minor in Music Education

The minor in music education is designed to provide a second classification area in choral/vocal, grades K-9 for students enrolled in other education programs that lead to initial teaching certification.

Candidates must complete the following courses (41 hours):
Music Theory
THRY COM 1300, Introduction to Music Theory
THRY COM 1301, Theory of Music I
THRY COM 1311, Theory of Music II
THRY COM 1302, Aural Training I
THRY COM 1312, Aural Training II
Music History and Literature
M H L T 1010, History of Western Music I
M H L T 1020, History of Western Music II
Music Education
MUS ED 3570, Curriculum and Methods of Teaching Elementary School Music*
MUS ED 3670, Philosophic and Practical Foundations of the Secondary Music Education Curriculum*
*Elementary education majors will omit Music 3770 from their regular elementary program to take these courses. Also required, as applicable, is SEC ED 4399, Student Teaching.

## Practicum

PRACTM 1140/ 1150, Piano Proficiency
PRACTM 2160/ 2180, Piano Proficiency IV
PRACTM 2510, Conducting I
PRACTM 2611, Elementary School Choral Literature Laboratory
PRACTM 3621, Junior-Senior High School Choral Literature Laboratory

## Ensemble

EN PER 1400/ 1410, Chorus or University Singers
Applied Music, voice (at least 2 hours must be private rather than class voice)
Students must receive at least a C- in each music course and maintain a 2.5 GPA in all music courses except that Chorus/Singers is not included in the GPA.

Minor in J azz Studies
Candidates must complete 31 credit hours from the following:

## Music Theory

THRY COM 1300, Introduction to Music Theory
THRY COM 1301, Theory of Music I

THRY COM 1302, Aural Training I
THRY COM 1311, Theory of Music II
THRY COM 1312, Aural Training II
Music History and Literature
M H L T 1020, History of Western Music II
M H L T 1070, Introduction to J azz
Applied Area
4 credit hours of private lessons
Piano Proficiency
PDGOGY 2220, Jazz Pedagogy PRACTM 1140/ 1150, Piano Proficiency
PRACTM 2160, Piano Proficiency III
PRACTM 2170, Jazz Keyboard Harmony

## Ensemble

2 credit hours minimum, to be selected from:
EN PER 1542, J azz Combo
EN PER 1545, Chamber Ensemble Voice
EN PER 1550, J azz Ensemble

## 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: choral,general music, instrumental, or music technology.

## Admission Requirements

Admission to the program requires a bachelor of music in music education (or equivalent) degree, admission to the Graduate School, and three letters of recommendation.

A written examination in music education (including applications of music history and music theory/eartraining) will be taken during the first semester or term of enrollment in the program for advising purposes and to identify the possible need for review in the areas of music theory and history.

The program requires completion of 32 hours of graduate credit, 22 of which must be earned in residence.

## Required Courses and Options:

Each candidate will choose one of the following emphasis areas:
Choral music education
Instrumental music education
General music education
Music education and technology
The minimum 32-hour program includes the following requirements.
Major Area ( 9 credit hours)
MUS ED 5810, Foundations of Music Education (3)
MUS ED 5910, Music Education Research (3)
MUS ED 5990, Master's Project in Music Education (3)
Advanced Methods ( 3 credits from the following)
MUS ED 5510, Graduate Instrumental Methods (3)
MUS ED 5610, Graduate Choral Methods (3)
MUS ED 5710, General Music: A Model for Multi-Faceted Musical Learning (3)
Choose 9 credits from the following:
MUS ED 5620, Guitar in the Classroom (3)
MUS ED 5750, Microcomputer Applications in Music Education(3)
MUS ED 5760, Microcomputer Assisted Instruction Curriculum Development in Music (3)
MUS ED 5770, Graduate Microcomputer Applications in Music (3)
MUS ED 5920, Psychology of Music (3)
PRACTM 5020, Choral Literature (3)
PRACTM 5210, Graduate Conducting (3)
THRY COM 5110, Scoring and Arranging (3)
Cognate in Education

Choose one other 3-credit education course such as:
ED REM 5730, Educational Statistics (3)
ED REM 6707, Classroom Testing and Measurement (3)
ED REM 6710, Educational Research Methods (3)

## Electives

Choose 5 credits from elective courses such as:
AP MUS 5430, Special Applied Studies (1)
AP MUS 5440, Graduate Applied Studies (1)
EN PER 5310, Graduate Chamber Ensemble (0)
EN PER 5490, Graduate Ensemble (1)
ED REM 6710, Educational Research Methods (3)
ED TECH 5340, Selection and Utilization Education Media (3)
MUS ED 4010, Marching Band Techniques (3)
MUS ED 5060, Graduate Workshop in Music Education (1-3)
MUS ED 5130, Teaching Music Theory in the High School (3)
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 Musical Learning (3)
MUS ED 5750, Microcomputer Applications in Music Education (3)
MUS ED 5760, Microcomputer Assisted Instruction: Curriculum Development in Music
MUS ED 5770, Graduate Microcomputer Applications in Music (3)
MUS ED 5800, Musical Acoustics (3)
MUS ED 5820, School Music Administration and Supervision (3)
MUS ED 5830, Contemporary Music Education (3)
MUS ED 5840, Problems of Urban Music Education (3)
MUS ED 5920, Psychology of Music (3)
MUS ED 5950, Special Problems in Music Education (3)
PDGOGY 5740, Techniques of Group Keyboard Instruction (3)
PRACTM 5020, Choral Literature (3)
PRACTM 5030, Band Literature (3)
PRACTM 5210, Graduate Conducting (3)
SPEC ED 6412, Psychology of Exceptional Children (3)
THRY COM 5110, Scoring and Arranging (3)

## Career Outlook

## Undergraduate

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.

## Graduate

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.

# BULLETIN <br> University of Missouri - St. Louis 

# Department of Theatre, Dance, \& Media Studies 

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## UMSL Home

Department of Theatre, Dance \& Media Studies Home Page

## Faculty

Thomas McPhail, Professor (Media Studies) and Chair; Fellow Center for International Studies
Ph.D., Purdue University
Adeniyi (Niyi) Coker, Jr., E. Desmond Lee Professor in African Studies; Fellow, Center for International Studies (Theatre \& Dance)
Ph.D., Temple University
Michael Murray, Professor, Curators' Teaching Professor (Media Studies)
Ph.D., University of Missouri-Columbia
Rita Csapo-Sweet, Associate Professor (Media Studies)
Ed.D., Harvard University
James Fay, Associate Professor (Media Studies)
M.F.A., Tulane University

Brett C. Biermann, Assistant Professor (Media Studies)
Ph.D., University of Van Amsterdam
Felia Davenport, Assistant Professor (Theatre \& Dance)
M.F.A., University of Tennessee, Knoxville

Robert Scoggins, Assistant Professor (Theatre \& Dance)
M.F.A., in Dance, Lindenwood University

J acqueline Thompson, Visiting Assistant Teaching Professor (Theatre \& Dance)
M.F.A. , University of Louisville-Louisville, Kentucky

Krista Tucciarone, Associate Teaching Professor (Media Studies)
Ph.D., University of Missouri - St. Louis
Stacey West, Research Assistant Professor (Theatre\& Dance)
MBA, Southern Illinois University at Edwardsville
The Department of Theatre, Dance, and Media Studies offers the BA degree program in Theatre and Dance, as well as the BS degree in Media Studies. The department also offers minor and certificate programs. The Media Studies concentration areas are advertising, film, production and television.

The Theatre and Dance area offers four main stage productions each academic year. The University Players, a recognized student organization, is open to any University of Missouri-St. Louis student, as is The Group Formerly Known as J eté, the student Dance organization.

Media Studies students are active in the Media Production Society, Ad Corps, - A Student Chapter of American Advertising Federation, SEMPA, the student radio organization, and community internships. Students are also actively involved in media production for both internal and external organizations and agencies.

For further information concerning the theatre, dance and/or media studies, curriculum, or other matters, contact the Department of Theatre, Dance, and Media Studies at 314-516-4572.

## Undergraduate Studies

## General Education Requirements

- All Theatre and Dance majors must satisfy the University and College of Fine Arts and Communication’s 42-hour General Education core requirements, which include English 1100 and the Math proficiency requirement.
- Junior-level writing class is required.
- The Cultural Diversity requirements may be satisfied by General Education courses or lower-or upperlevel courses in various departments.
- State Government/History graduation requirements may be satisfied by General Education courses or by other lower-or upper-level courses in various departments.
- 13 hours of a foreign language.


## Degree Requirements

## Bachelor of Arts in Theatre and Dance

Theatre and Dance majors must complete a minimum of 36, but not more than 52 hours in Theatre and Dance courses. A core of 26 hours is required for all majors and 10-26 additional hours in Theatre and Dance are required. At least 24 hours in the major must be taken at UMSL and must include 6 hours at the 2000 or higher level and 9 hours at the 3000 or higher level. All courses required for the major must be completed with a minimum grade of $C$ - to be accepted, and the overall total grade point average must be at least 2.0 to graduate. To be eligible to participate in Internship classes, each student must have an overall grade point average of 3.0

In addition to the major's required core and elective Theatre \& Dance courses, students will choose elective courses to bring their total credit hours to 120 . Practicum courses may be repeated for credit; an overall limit of 20 hours in Practicum courses will be accepted towards the 120 hour degree.

Required Core Courses for all Theatre and Dance Majors
TH DAN 1210 Fundamentals of Acting 1 ( 3 hours)
TH DAN 1900 Introduction to Theatre Technology ( 3 hours)
TH DAN 1910 Introduction to Theatrical Design ( 3 hours)
TH DAN 1023 Fundamentals of Dance ( 3 hours)
TH DAN 2810 History of World Theatre \& Drama I; or
TH DAN 2820 , History of World Theatre \& Drama II; or
TH DAN 2840, History of Dance I ( 3 hours)
2 hours chosen from these Production related courses:
TH DAN 1060 Theatre Workshop
TH DAN 2260 Introduction to Costume Design \& Production
TH DAN 3060 Advanced Theatre Workshop
TH DAN 3254 Costume Production \& Construction Techniques
6 hours chosen from these Practicum courses ( $\mathbf{3}$ hours of which need to be above the 3000 level)
TH DAN 2195 Practicum in Performance Studies
TH DAN 2196 Theatre Practicum: Scenery/Lighting/Sound in Theatre Production
TH DAN 2197 Practicum in Costume
TH DAN 2198 Practicum in Dance
TH DAN 3195 Advanced Practicum in Performance Studies
TH DAN 3196 Advanced Theatre Practicum: Scenery/Lighting/Sound in Theatre Production
TH DAN 3197 Advanced Practicum in Costume
TH DAN 3198 Advanced Practicum in Dance
26 hours total - Additional hours in Theatre and Dance electives are to be selected based on individual students' areas of interest. The core courses of 26 hours plus the Theatre and Dance electives must equal a minimum of 36 hours, but not more than 52 hours, for Theatre and Dance majors.

## Minor in Theatre and Dance

Students with other majors may choose to minor in Theatre and Dance to complement their academic and career goals. The minor requires 18 hours of Theatre and Dance courses, nine of which must be taken at UMSL. A minimum GPA of 2.0 is required in the minor.

## A. Minor in Theatre and Dance Consists of the following:

a. 3 hours chosen from these Performance related courses:

TH DAN 2211 Acting Styles
TH DAN 3210 Ensemble Acting
TH DAN 3305 Writing for Performance
TH DAN 4220 Directing for the Theatre
b. 3 hours chosen from these Design/ Technology related courses:

TH DAN 2260 Introduction to Theatrical Costume Design \& Production
TH DAN 2280 Lighting and Sound Technology
TH DAN 3252 Costume Design
TH DAN 3254 Costume Production \& Construction Techniques
TH DAN 3260 Scenic Design
TH DAN 3261 Lighting Design

## c. 2-3 hours chosen from these Dance related courses: <br> TH DAN 1006 Beginning Ballet Technique

TH DAN 1007 Beginning Jazz Dance Technique
TH DAN 1008 Beginning Modern Dance Technique
TH DAN 2006 Intermediate Ballet Technique*
TH DAN 2007 Intermediate Jazz Dance Technique*
TH DAN 2008 Intermediate Modern Dance Technique*
TH DAN 3006 Advanced Ballet Technique*
TH DAN 3007 Advanced J azz Dance Technique*
TH DAN 3008 Advanced Modern Dance Technique*
TH DAN 3009 Dance Choreography for the Stage, Television, and Video
d. 2 hours chosen from these Production related courses:

TH DAN 1060 Theatre Workshop
TH DAN 2260 Introduction to Costume Design \& Production
TH DAN 3060 Advanced theatre Workshop
e. 1 hour chosen from these Practicum courses:

TH DAN 2195 Practicum in Performance Studies
TH DAN 2196 Theatre Practicum: Scenery/Lighting/Sound in Theatre Production
TH DAN 2197 Practicum in Costume
TH DAN 2198 Practicum in Dance
TH DAN 3195 Advanced Practicum in Performance Studies
TH DAN 3196 Advanced Theatre Practicum: Scenery/Lighting/Sound in Theatre Production
TH DAN 3197 Advanced Practicum in Costume
TH DAN 3198 Advanced Practicum in Dance

## f. 6-7 hours chosen from any additional Theatre and Dance courses

*Enrollment in Intermediate-and Advanced-level Dance Technique courses is by audition only. Beginning-level courses may be repeated for credit until sufficient proficiency has been achieved to advance to higher-level courses.

## Bachelor of Science in Media Studies

## General Education Requirements

- All Media Studies majors must satisfy the University and the College of Fine Arts and Communication's 42-hour General Education core requirements, which include ENGL 1100 and the Math proficiency requirement.
- A Junior-level writing class is required.
- The Cultural Diversity requirements may be satisfied by General Education courses or other lower- orupper level courses in various departments.
- State Government/History graduation requirements may be satisfied by General Education courses or by other lower-or-upper level courses in various departments.
- There is no foreign language requirement, but foreign language proficiency is recommended.


## Degree Requirements

## Bachelor of Science in Media Studies

Media Studies majors must complete a minimum of 51 hours in the Department of Theatre, Dance, and Media Studies courses. A core of 21 hours is required of all majors. An additional 27 hours, 9 hours in Theatre and Dance classes, 9 hours in Media Studies classes at the 2000 level and 9 hours in Media Studies classes at the 3000 level, must be completed with a minimum grade of C - . At least 24 of these hours must be taken at UMSL. Of the 24 hour minimum, at least 18 hours of classes must be taken at the 2000 level or above at UMSL.

In addition to the major core and required courses, students will choose elective courses to bring their total credit hours to 120. Practicum and Internship courses may be repeated for credit, but an overall limit of 20 hours in Practicum and Internship will be accepted towards the 120 hours degree.

Required Core Courses for all Media Studies majors:
3 hours MEDI A ST 1050 Introduction to Media Studies
3 hours MEDI A ST 1065 Introduction to Information Technology
3 hours TH DAN 1900 Introduction to Theatre Technology
3 hours MEDI A ST 1070 Introduction to Cinema OR
MEDI A ST 1100 Introduction to Advertising OR
MEDI A ST 1110 Introduction to Radio/TV Broadcasting
3 hours MEDI A ST 2235 Media Theory
6 hours MEDI A ST 1194-MEDI A ST 1198 Practicum and/ or MEDI A ST 3194-MEDI A ST 3198 I nternship (Students must have a 3.0 G.P.A. in the major or Consent of Instructor to take an internship) and/ or MEDI A ST 4400 Senior Project.

6 hours MEDIA ST 1194-MEDIA ST 1198 Practicum and/ or MEDIA ST 3194-MEDIA ST 3198 Internship (Students must have a 3.0 G.P.A. in the major or Consent of Instructor to take an internship) and/or MEDIA ST 4400 Senior Project.

## 21 hours total

Additional hours in Theatre, Dance and Media Studies electives are to be selected on individual students' areas of interest. The core courses of 21 hours plus the Theatre, Dance, and Media Studies electives must equal 48 hours in total for Media Studies majors.

Any other Theatre and Dance class (9 hours)
Any other Media Studies class at the 2000 level or above ( 9 hours)
Any other Media Studies class at the 3000 level or above ( 9 hours)

## 27 hours total

## Minor in Media Studies

A minor in Media Studies consists of the following:

1. 3 hours 2235, Media Theory
2. 6 hours chosen from the following:

MEDI A ST 1050, Introduction to Media Studies
MEDI A ST 1060, Introduction to World Cinema
MEDI A ST 1065, Introduction to Information Technology
MEDI A ST 1070, Introduction to Cinema
MEDI A ST 1100, Introduction to Advertising
MEDI A ST 1110, Introduction to Radio/TV Broadcasting
MEDI A ST 1113, Basic Television Studio Production
MEDIA ST 1114, Radio Production I
MEDI A ST 1118, Radio and Television Announcing
MEDI A ST 2080, Advertising Copywriting
3. 3 hours chosen from the following:

MEDI A ST 1775, Introduction to Non-Western Cinema
MEDI A ST 2210, Television Production I
MEDIA ST 2211, Introduction to Digital Multimedia Productions
MEDI A ST 2212, Broadcast Writing and Reporting
MEDI A ST 2218, Public Policy in Telecommunication
MEDI A ST 2275, Introduction to International Cinema
MEDI A ST 2500, Introduction to Comparative International Media Systems
MEDI A ST 3370, Documentary Film
4. 6 hours chosen from the following:

MEDI A ST 2228, Public Relations Writing
MEDI A ST 2271, History of American Film
MEDI A ST 2272, Contemporary Cinema
MEDI A ST 3035, Advanced Media Theory
MEDI A ST 3070, International Cinema
MEDI A ST 3150, Feature Writing
MEDI A ST 3180, Reporting
MEDI A ST 3214, News Writing
MEDI A ST 3310, Television Production II
MEDI A ST 3313, Advanced Video Editing
MEDI A ST 3316, Television News
MEDI A ST 3317, Radio and Recording Industry
MEDI A ST 3334, Advertising Media Planning
MEDI A ST 3338, Advertising Techniques
MEDI A ST 3350, Mass Media History
MEDI A ST 3354, Comparative Telecommunication Systems
MEDI A ST 3355, Media Law and Regulation
MEDI A ST 3356, Global Media Systems and Trends
MEDI A ST 4335, Seminar in Applied Media Studies Research

## Theatre, Dance \& Media Studies

Prerequisites may be waived by consent of the department.

## Certificate Program in Advertising:

A student may receive the Certificate in Advertising by completing 15 hours of selected course work and 3 hours of a practicum or an internship from the following list of courses. A GPA in courses for the certificate must be 2.0 or better, and nine of the 18 hours must be taken at UMSL. Courses may not be taken on a satisfactory/unsatisfactory basis.

MEDI A ST 1100, Introduction to Advertising (3)
MEDI A ST 2080, Advertising Copywriting (3)
MEDI A ST 2090, Creative Advertising (3)
MEDI A ST 2211, Introduction to Digital Multimedia Production (3)
MEDI A ST 2220, Promotion Essentials (3)
MEDI A ST 2222, Convergence and Digital Media (3)
MEDI A ST 3025, Current Issues in Advertising (3)
MEDI A ST 3030, Advertising and Social Media (3)
MEDIA ST 3334, Media Planning (3)
MEDI A ST 3338, Advertising Techniques (3)
MEDI A ST 3355, Media Law and Regulation
MEDI A ST 3500, Advanced Advertising Seminar (3)
MKTG 3700, Basic Marketing (3)
MEDI A ST 1195, 150-hour Practicum* (Equals a minimum of 3 cr . hrs.) OR
MEDI A ST 3395, 150-hour Internship* (Equals a minimum of 3 cr . hrs.)

* NOTE: Students may take MEDIA 1195 OR MEDIA 3395, but they must take either 150 hours of Practicum or 150 hours of Internship. Practicums or Internships must be arranged in advance and are required for all students.

The On-line Certificate Program in Film Studies
The On-line Certificate Program in Film Studies is open to all St. Louis campus undergraduate and graduate students, as well as to graduates of UM-St. Louis and other colleges and universities.

To receive a Film Studies Certificate, a student must complete the required courses ( 18 credit hours) with an average grade of C or better. None of the courses may be taken on a satisfactory/unsatisfactory basis. Up to six credit hours of course work may be transferred from other institutions.

Required: (9 credits)
MEDI A ST 1060, Introduction to World Cinema (3)
MEDI A ST 2271, History of American Film (3)
MEDI A ST 2273, Survey of Film Genres (3)
Electives: (Choose 9 credits from the following options)
MEDI A ST 1070, Introduction to Cinema (3)
MEDI A ST 2214, Screenwriting (3)
MEDI A ST 2272, Contemporary Cinema (3)
MEDI A ST 2275, Introduction to International Cinema (3)
MEDI A ST 3070, International Cinema (3)
MEDI A ST 3370, Documentary Film 3370 (3)

## Course Descriptions

Prerequisites may be waived by consent of the department.

## Theatre and Dance

## TH DAN 1006 Beginning Ballet Techniques (2)

An introduction to the art of ballet emphasizing basic movement, technique and terminology. Course 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)
An 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)
An 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)

The 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)

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 1105 Dance Repertory (1-3)

Prerequisites: Audition or Consent of instructor. Dancers are selected through audition or consent of instructor to participate in the dance repertory. Students will learn and rehearse original choreography created by faculty and guest artists. At the end of the semester, students will perform original works at a dance concert. Dance attire and appropriate dance shoes are required. Course may be repeated for credit up to 6 hours.

TH DAN 1175 Arts and Ideas (3) [H]
Same as ST ART 1175, ENGL 1175, HIST 1175, M H L T 1175, PHIL 1175. An interdisciplinary course tied to the semester's offerings at the Blanche Touhill Performing Arts Center as well as other events on campus featuring the visual arts, literature, music and film. Each semester the course will provide background on the arts in general and will critically examine particular performances and offerings. Special themes for each semester will be selected once the Touhill schedule is in place. Students will be expected to attend 6-8 performances or exhibitions. Can be repeated once for credit

## TH DAN 1210 Fundamentals of Acting (3) (H)

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 and Diction/ Vocal Performance (3)

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) (H)

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, dramatic forms from classical to modern to the avant garde as well as performance art will be 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 I ntroduction to Non-Western Theatre (3) (C), (H), (CD)
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.

## TH DAN 1900 Introduction to Theatre Technology (3)

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)

Prerequisite: TH DAN 1900 or Consent of instructor. Introductory course covering the elements and principles of design as they relate to theatrical 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 I ntermediate Ballet Technique (2)

Prerequisite: 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)
Prerequisite: 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)

Prerequisite: 2.0 credit hours of TH DAN 1008 or Consent of instructor. Modern dance movement, technique, vocabulary, and aesthetics. Course of study will be 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)

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, closeups, working with props, continuity and hitting your mark.

## TH DAN 2105 Script Analysis (3)

An introductory course of the play script/libretto as the basic element in theatre. Students learn the principles of play construction and the basic vocabulary of artistic styles through which plays are produced. Students will read texts from classical and contemporary theatre, engage in class discussions, and write analyses of required scripts/librettos.

## TH DAN 2112 Scene Study (3)

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 minumum of three scenes.

## TH DAN 2195 Practicum in Performance Studies (1-3)

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)

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 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 2197 Practicum in Costume (1-3)

This course provides 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 will be required. Appropriate clothing and personal safety equipment will be required. Personal sewing equipment will be required. Course may be repeated for up to 8 credit hours.

## TH DAN 2198 Practicum in Dance (1-3)

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. Running crew work will 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 2210 Ensemble Acting (3)

Prerequisite: 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 creation, 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)
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 I ntroduction to Directing (3)
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 Stagecraft (3)

Prerequisite: TH DAN 1900 or Consent of Instructor. A survey of the theories, terminology, and practices of methods and equipment of scenic and properties construction, paining, and rigging. Course includes practical application through 45 hours of lab work in conjunction with departmental productions. Personal safety
equipment will be required.
TH DAN 2260 Introduction to Theatrical Costume Design \& Production (3)
A survey of the theory, practices and vocabulary of theatrical costuming; the visualization and realization of the costume through the arts of pattern cutting; 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)

Prerequistes: 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 2280 Lighting \& Sound Technology (3)

Prerequisite: TH DAN 1900 or Consent of instructor. A survey of the theories, terminology, and practices of methods, equipment, and control systems of lighting and sound technology for the stage. Course includes practical application through 45 hours of lab work in conjunction with departmental productions. Basic personal tools will be required.

TH DAN 2290 Drafting for the Theatre (3)
Prerequisite: TH DAN 1900 or Consent of instructor. Survey course covering the fundamental techniques of two dimensional drafting. Drafting equipment will be required.

TH DAN 2300 Stage Management (3)
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) (C) (H)
Prerequisite: 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 and Drama from 18th Century to Contemporary Times (3)

 (H) (C)Prerequisite: TH DAN 1800 or Consent of instructor. History of theatre from the 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)

Prerequisite: 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) (H) (C) Prerequisite: 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)
Prerequisites: 4.0 credit hours of TH DAN 1006 and/or TH DAN 2006 or 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 J azz Dance Technique (2)
Prerequisites: 4.0 credit hours of TH DAN 1007 and/or TH DAN 2007 or 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)
Prerequisites: 4.0 credit hours of TH DAN 1008 and/or TH DAN 2008 or 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)

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 \& 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)
Prerequisite: TH DAN 1900, TH DAN 1060 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)
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 Advanced Theatre Practicum: Scenery/ Lighting/ Sound in Theatre Production (1-3) 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)

Prerequisite: Consent of instructor. 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)

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)

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)

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 3225 Acting in Modern and Poetic Realism (3)

Prerequisites: TH DAN 1210, 2210 or 2212. An intermediate acting course designed to engage students in scene study analysis and methods as they apply to dramatic works from playwrights such as Chekhov, Ibsen, Strindberg, Lorca, Williams and O'Neill. Special emphasis given to clarity of interior work, sociological influence, characterization, action, and objective.

## TH DAN 3252 Costume Design (3)

Prerequisites: TH DAN 1910, 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. Course may be
repeated for up to 6 credit hours.
TH DAN 3254 Costume Production and Construction Techniques (3)
Prerequisites: TH DAN 1900, TH DAN 2260 or Consent of Instructor. Study of theory and application of pattern making, fitting, construction techniques for costumes and undergarments to achieve authentic-appearing costumes using contemporary methods. Provides practical experience in costume construction, as well as wardrobe and makeup. Participation in running crews, in conjunction with the theatre and dance department productions, or other approved independent study projects may be required. Personal equipment will be required. Weekend and evenings may be required. Appropriate clothing and personal safety equipment required. Course may be repeated for up to 8 credit hours.

TH DAN 3257 Makeup for Theatrical Productions (3)
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 Scenic Design (3)

Prerequisites: TH DAN 1900, TH DAN 1910, TH DAN 2250, TH DAN 2290, or Consent of instructor. Survey of the theories and practices of scenery design for the theatre. This course will emphasize the creative process from conceptual script analysis through final design projects, sketching, drafting, rendering, and model making. Personal graphics and drafting materials will be required.

## TH DAN 3261 Lighting Design (3)

Prerequisites: TH DAN 1900, TH DAN 1910, TH DAN 2280, or Consent of instructor. Survey of the theories and techniques of lighting design for theatre and dance. This course will emphasize the creative process from script and choreographic concepts through final design projects, sketching, drafting, rendering, and related paperwork. Personal graphics and drafting materials will be required.

TH DAN 3263 Scene Painting (3)
Prerequisite: TH DAN 1900, TH DAN 1920 or Consent of Instructor. Survey of theories, materials, and techniques of scene painting for the stage. Course includes 45 lab or studio hours for application and practice of painting projects, and possible evening and/or weekend studio hours.

## TH DAN 3305 Writing for Performance (3)

Prerequisite: Consent of instructor. An 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)

Prerequisite: 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)

Prerequisite: 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)

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 that the topic is different.

## TH DAN 4041 Special Topics in Dance (1-6)

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 that the topic is different.

## TH DAN 4220 Directing for the Theatre (3)

Prerequisite: 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 4230 Theatre Management (3)

Comprehensive study and practice of theatre production and management techniques, including season selection, fundraising, budget control, venue analysis and acquisition, box office, facility management, production scheduling, interpersonal skills, conflict resolution, and promotional techniques for theatre.

## TH DAN 4261 Advanced Projects in Design and Technology (1-3)

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 4262 Advanced Problems in Costume (1-3)

Prerequisite: TH DAN 2260 or TH DAN 3252 or consent of Instructor. Provides opportunities in supervised special projects in costume design and technology in conjunction with actual productions or other advances independent projects. Includes design research process, script and character analysis, study of history context and social environment, development of conceptual designs, study of current costume design and wardrobe practices. Personal equipment will be required. Credit based on scope of project. Course may be repeated for up to 6 credit hours.

## TH DAN 4390 Theatre I nternship (1-3)

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)

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)

Prerequisite: 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 other subject area. Same as Sec Ed 4886. 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)

Prerequisites: Senior standing and consent of an 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.

## Media Studies

## MEDI A ST 1050 Introduction to Media Studies (3)

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.

## MEDI A ST 1055 Introduction to Social Media (3)

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 a, privacy, censorship, cyber-bullying, and the use of social media for anti-social/terrorist activities will be explored.

## MEDI A ST 1060 Introduction to World Cinema (3)

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.

## MEDI A ST 1065 I ntroduction to I nformation Technology (3)

The production and consumption of information by individuals, the work place and society. Emphasis on the changing nature of communication processes as a result of the expansion of communication technologies.

## MEDI A ST 1070 I ntroduction to Cinema (3)

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.

## MEDI A ST 1100 I ntroduction to Advertising (3)

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.

MEDI A ST 1105 Advertising for the Arts (3)
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.

## MEDI A ST 1110 Introduction to Radio and Television Broadcasting (3)

An introduction to broadcasting, including the areas of history, government regulations, station operation, and program development.

## MEDI A ST 1113 Basic Television Studio Production (3)

Study of basic television studio production techniques and practices. The class will provide the student with practical experience in studio camera operating, directing, producing, switching, audio mixing and lighting, as well as basic straight cut editing. Lab arranged.

MEDI A ST 1114 Radio Production I (3)
Prerequisite: MEDIA ST 1110. Theory and practice in the creation of radio programs. Laboratory experience included.

## MEDI A ST 1118 Radio and Television Announcing (3)

Prerequisites: MEDIA ST 1113, or MEDIA ST 1114, or Consent of Instructor. Training in radio and television studio procedures. Production and criticism of lab programs, including news, continuity, interviews, and oral improvisation. Classroom meetings at the radio lab and the television lab, plus lab hours to be arranged.

MEDI A ST 1135 Media Theory (3)
Theory based explanation of the relationship between mass media and society. Topics will include agendasetting, violence and television, and other current issues from a critical perspective.

MEDI A ST 1194 Practicum in J ournalism (1-3)
Prerequisite: 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.

MEDI A ST 1195 Practicum in Advertising (1-3)
Prerequisite: MEDIA ST 1108 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 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.

## MEDI A ST 1196 Practicum in Radio (1-3)

Prerequisite: MEDIA ST 1114 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.

MEDI A ST 1197 Practicum in Television/ Film (1-3)
Prerequisite: MEDIA ST 1113 or Consent of Instructor. Open to Theatre, Dance and Media Studies majors only; not open to students who have delayed grades outstanding. Practical work at one of the campus television studios or for the UMSL Television/Film Club, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

## MEDI A ST 1198 Practicum in Media Studies (1-3)

Prerequisite: 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 media studies, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

MEDI A ST 1500 Entertainment Economics: The Movie I ndustry (3)
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.

## MEDI A ST 1775 Introduction to Non-Western Cinema (3)

Prerequisite: MEDIA ST 1070 with a grade of C or better. This course examines the art and history of nonwestern cinema. Significant films from Asia and Africa will be examined. The artistic, technical, historical, and social significance of these films will also be examined. This course will satisfy the University's cultural diversity requirement.

MEDI A ST 2080 Advertising Copywriting (3)
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.

MEDI A ST 2090 Creative Advertising (3)
Prerequisite: 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.

## MEDI A ST 2210 Television Production I (3)

Prerequisite: MEDIA ST 1113 or Consent of Instructor. A study of the basic theories and practices of remote television production. The areas of producing and directing in the field will be studied. The class will provide the student with practical experience in remote camera operation and basic non-linear editing techniques. Lab arranged.

## MEDI A ST 2211 Introduction to Digital Multimedia Production (3)

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 Quick Time, Window Media, and Flash multimedia creation will be demonstrated and utilized to develop skill sets in those areas.

## MEDI A ST 2212 Broadcast Writing and Reporting (3)

Prerequisite: 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.

## MEDI A ST 2214 Screenwriting (3)

Prerequisite: MEDIA ST 1070 or Consent of Instructor. The course explores the writing of fiction film narrative with particular emphasis on plot structure, theme, and character development.

## MEDI A ST 2220 Promotion Essentials (3)

Prerequisite: 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.

## MEDI A ST 2222 Convergence \& Digital Media (3)

This course deals with the production of various digital media platforms. The course is designed for beginners with an interest in learning how to shoot and edit content/stories for the Web, including social networking sites. Students will use flip cameras and learn how to use Final Cut Express software for editing.

## MEDI A ST 2228 Public Relations Writing (3)

Prerequisite: 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.

## MEDI A ST 2235 Media Theory (3)

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.

## MEDI A ST 2271 History of American Film (3)

Prerequisite: MEDIA ST 1070 or Consent of Instructor. History of American Film from the late nineteenth century to the present.

## MEDI A ST 2272 Contemporary Cinema (3)

Prerequisite: MEDIA ST 1070 or Consent of Instructor. History of World Cinema from the 1940s to the present day.

MEDI A ST 2273 Survey of Film Genres (3)
Prerequisite: MEDIA ST 1060 or MEDIA ST 1070, or Consent of Instructor. The 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.

## MEDI A ST 2274 African-American Cinema (3)

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 1920s through 1970s Blaxploitation to present directors and producers will be examined. African-American experiences and roles in films will also be discussed.

MEDI A ST 2500 Introduction to Comparative International Media Systems (3) [CD]
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.
MEDI A ST 3025 Current I ssues in Advertising (3)
Prerequisite: 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.

## MEDI A ST 3030 Advertising and Social Media (3)

Prerequisite: MEDIA ST 2090. Examination of advertising online with such topics as social communities, friendvertising, virtual worlds, brand building, media democracy, on-line opinions, gaming, and how companies can leverage their brands using two-way interaction.

MEDI A ST 3035 Advanced Media Theory (3)
Prerequisite: MEDIA ST 1135 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.

## MEDI A ST 3070 International Cinema (3)

Prerequisites: MEDIA ST $1070 \&$ MEDIA ST 2275. Understanding international film, its properties, methods, aesthetics, and its impact on culture and society.

## MEDI A ST 3150 Feature Writing (3)

Same as ENGL 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 satisfactory/unsatisfactory option. The course counts toward the English Certificate in Writing.

## MEDI A ST 3180 Reporting (3)

Same as ENGL 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 English Certificate in Writing.

## MEDI A ST 3214 News Writing (3)

Same as ENGL 3140 . 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 English Certificate in Writing.

## MEDI A ST 3310 Television Production II (3)

Prerequisite: MEDIA ST 2210 Study of advanced theories of television production. Refinement of studio television principles learned in MEDIA ST 2210. Exploration of complex program formats, and advanced nonlinear editing techniques. Lab arranged.

## MEDI A ST 3313 Advanced Video Editing (3)

Prerequisite: 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.

## MEDI A ST 3316 Television News (3)

Prerequisite: MEDIA ST 1113 or 2110. Theory and laboratory practice in the gathering, writing, and delivery of news through television. Lab arranged.

## MEDI A ST 3317 Radio and the Recording Industry (3)

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.

## MEDI A ST 3334 Advertising Media Planning

Prerequisite: MEDIA ST 1050 A hands-on study of how to determine an advertising budget, select media and develop a strategic plan.

## MEDI A ST 3338 Advertising Techniques (3)

Prerequisite: MEDIA ST 1100 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.

MEDI A ST 3350 Mass Media History (3)
Prerequisite: 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.

## MEDI A ST 3355 Media Law and Regulation (3)

Prerequisite: 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.

## MEDI A ST 3356 Global Media Systems and Trends (3)

This course will survey major theories, global trends, and key stakeholders in the field of mass and multimedia. 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 the class.

## MEDI A ST 3357 Media Convergence (3)

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.

## MEDI A ST 3362 Storytelling (1-3)

Prerequisite: Junior standing or consent of instructor. This 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.

## MEDI A ST 3370 Documentary Film (3)

Prerequisite: MEDIA ST 1070. Consideration of the history, theory, and criticism of nonfiction film. Screening of representative documentary films.

## MEDI A ST 3380 Feature Film Screenw riting (3)

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.

MEDI A ST 3394 I nternship in J ournalism (3-6)
Prerequisites: Senior standing, with at least 12 hours of course work in journalism, 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 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.

## MEDI A ST 3395 I nternship in Advertising (3-6)

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 any delayed grades.

## MEDI A ST 3396 Internship in Radio (3-6)

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.

## MEDI A ST 3397 Internship in Television/ Film (3-6)

Prerequisites: Senior standing, with at least 12 hours of course work in television, film, video; and 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.

## MEDI A ST 3398 Internship in Media Studies (3-6)

Prerequisites: Senior standing, with at least 12 hours of course work in television, film, video, 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 consultation with a faculty member. This course can be repeated for up to 6 credit hours.

## MEDI A ST 3500 Advanced Advertising Seminar (3)

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, and advertising partnerships, and measures of effectiveness. The course final includes preparing a Plan Book for a specific client and
presenting at a national competition.
MEDI A ST 3990 Directed Readings in Media Studies (3)
Prerequisite: 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.

MEDI A ST 4040 Special Topics in Media Studies (1-6)
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.

## MEDI A ST 4270 Feature Film Writing (3)

Prerequisite: 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.

## MEDI A ST 4271 Feature Film Production (3)

Prerequisite: 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.

## MEDI A ST 4272 Feature Film Post Production (3)

Prerequisite: 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.

## MEDI A ST 4335 Seminar in Applied Media Studies Research (3)

Prerequisite: MEDIA ST 1135 or Consent of Instructor. This course explores the use of media concepts, theories, methods and designs in applied field settings with an emphasis on original research.

MEDI A ST 4357 Media Ethics (3)
Prerequisite: Same as PHIL 4457. Nine hours of philosophy, communication, or media studies, or Consent of Instructor. This course is concerned with some of the issues that arise from the intersection of ethics and modern media communications. Attention is given to some of the more specific concerns of media ethics, such as truth, honesty, fairness, objectivity and bias; personal privacy and the public interest; advertising; conflicts of interest; censorship and offensive or dangerous content (pornography, violence). Particular attention will be given to problems posed by the development of personal computer communications through bulletin boards on-line services and the Internet.

MEDI A ST 4392 Administration of Co-curricular Activities (3)
Prerequisite: Junior standing or consent of instructor. A survey of skills required to administer the various cocurricular activities associated with teachers in the secondary schools, such as theatre performances and mass media centers.

## MEDI A ST 4400 Senior Project (3)

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.

## Graduate Study

UMSL Home

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 (a) they do not meet admission standards, (b) there are no available openings, or (c) 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 (a) a baccalaureate or advanced degree from an accredited institution of higher education, (b) an undergraduate grade point average (GPA) and major field GPA of at least 2.75 , (c) an acceptable score on each requisite examination, and (d) 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 DegreeSeeking 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 NonDegree 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 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 NonDegree 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.

## I nter-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 Services. Phone 314-516-5229; Fax 314-516-5636; e-mail:
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.

Applicants from other countries shall provide a summary of their educational experience as a basis of comparison of their backgrounds with those of U.S. applicants. They must also provide materials required to obtain an appropriate visa, including a statement of their financial situation and the anticipated form of support for the period of graduate study.

## 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.

## 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 reenrollment 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 gradfuate 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.

## 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 (or from the third through the sixth week of the summer 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 $F$.

## 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;

$$
\begin{aligned}
& A=4.0 \\
& A-=3.7 \\
& B+=3.3 \\
& B=3.0 \\
& B-=2.7 \\
& C+=2.3 \\
& C=2.0 \\
& C-=1.7 \\
& F=0 \\
& F N=0 \\
& E X=\text { Excused } \\
& D L=\text { Delayed } \\
& I P=\text { In Progress } \\
& S / U=A \text { or } B \text { equivalent }
\end{aligned}
$$

The satisfactory/unsatisfactory (S/U) option, which is an option for undergraduate students, is not normally available in courses for graduate credit. S/U grades may be given only for thesis, dissertation, specific internships, practica, or project courses as requested by a program, 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.

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. Although delayed grades do not affect a graduate student's grade point average, they are an important factor in evaluating academic progress. Delayed grades must be removed within two regular semesters after the time recorded or they automatically become $F$ grades. In such cases, course instructors may subsequently change F grades to other grades on their progress in a sequential course
and indicate that a grade will be assigned at the end of the sequence. Some programs assign the Delayed Grade for dissertations or theses in progress. Students must complete all Delayed grades to be approved to graduate.

## Failure/ Non participation

When students do not complete any graded assignments but do not oficially 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 includes 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 GPA includes only the grades of those courses that are part of the degree program. The Degree Program or certificate GPA must be at least 3.0 for a student to receive a graduate degree.

## 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.

## 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 in a minimum of nine credit hours are placed on probation. A program may also place a student on probation if it regards 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. Multidisciplinary 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: (a) No more than one-third of the credit hours required by either program may be applied to both programs; (b) 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 to 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 to a doctoral or Ed.S. degree in another program provided (a) they apply no more than two-thirds of the master's degree courses to their doctoral degree program; (b) they have been admitted to the master's degree program; and (c) 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.

## Filing the Degree Program Plan

A master's degree student shall filewith the Graduate School a program plan approved by the program director before completing the first 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 master's degree informs the Graduate School of (a) the number of times the program will allow its students to take a comprehensive examination, and (b) 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.

## Application for Master's Degree

To receive the master's degree, students who have met all degree requirements must apply for graduation by the end of the fourth week of classes during the fall or spring term or by the first day of the eight-week session during the summer term.

## 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 (a) the number of times the program will allow its students to take a comprehensive examination, and (b) 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:

1. A pre-candidate is a student who has requirements to fulfill in addition to the dissertation, including course work, and/or comprehensive examinations.
2. 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 (a) the number of times the program will allow its students to take a comprehensive examination, and (b) 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 $11 / 2$ 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.

## Public Policy Administration

Course Descriptions

## UMSL Home

Public Policy Administration Home Page

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## 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 non-profit 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 National Association of Schools of Public Affairs and Administration (NASPAA).

A key strength of the program is the experienced faculty, all of whom are 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.

## Admission 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 webbased admission application is not sufficient. Applicants must submit official transcripts 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, Introduction to Policy Analysis
P P ADM 6900, Cases in Public Policy Administration
P P ADM 6080, Microeconomics for Policy Analysis
P P ADM 6210, Public Sector Microeconomics
Public Administration and Budgeting
P P ADM 6400, Proseminar in Public Administration
P P ADM 6600, Organizational Behavior and Administrative Processes
P P ADM 6180, Governmental Budgeting and Financial Control
Statistics, Research Methods, and Information Technology
P P ADM 6010, Introduction to Policy Research
P P ADM 6750, Introduction to Evaluation Research Methods

P P ADM 6850, Information Technology and the Public and Nonprofit Sectors
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 should be taken at the beginning of the program. It is strongly recommended that P P ADM 6010 and P P ADM 6080 be taken early in a student's course plan. P P ADM 6900 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:

1) Managing Human Resources and Organizations
a. Required (3 hours)

P P ADM 6490, Human Resources in the Public Sector


#### Abstract

b. Electives ( 9 hours) chosen from:

ECON 5400, Labor Economics MGMT 5611, Advanced Organizational Behavior and Administrative Processes MGMT 5622, Union-Management Relations and Collective Bargaining MGMT 5624, Organizational Training MGMT 5625, Selected Topics in Human Resource Management P P ADM 6500, Selected Topics in Public Policy Administration (when topic is relevant to Human Resource and Organized Behavior) P P ADM 6680, Negotiating Workplace Conflict P P ADM 6950, Internship - 3 hours (in assignment relevant to emphasis area) POL SCI 3470, Collective Bargaining


2) Policy Research and Analysis
a. Required ( 3 hours)

POL SCI 6402, Intermediate Techniques in Policy Research OR ECON 4100, Introduction to Econometrics
b. Electives ( 9 hours) chosen from:

POL SCI 6403, Advanced Techniques in Policy Research or ECON 4110, Applied Econometrics ECON 4160, Geospatial Economic Analysis ECON 4170, Fundamentals of Cost-Benefit Analysis
ECON 4500, Public Finance: State and Local ECON 4550, Natural Resource Economics ECON 5400, Labor Economics ECON 5640, Transportation Economics ECON 5700, Regional and Urban Economics ECON 5720, The Economics of Real Estate and Land Use Policy ECON 5750, The Political Economy of Healthcare ECON 5760, Health Economics ECON 5900, Advanced Topics in Economic Analysis POL SCI 6404, Multi-Method Research POL SCI 6414, Topics in Public Policy Analysis POL SCI 6422, Law, Courts, and Public Policy POL SCI 6444, Seminar in Public Policy and Aging POL SCI 6452, Public Policy of Conservation and Sustainable Development SOC 4040, Survey Research Practicum SOC WK/ POL SCI 6443, Health Care Policy P P ADM 6950, Internship (in assignment relevant to the emphasis area)

## 3) Local Government Management

a. Required ( 6 hours)*

P P ADM 6340, Seminar in City Administration or P P ADM 6350, Seminar in Urban Management

## AND EITHER

POL SCI 6470, Proseminar in Urban Politics or POL SCI 6471, Seminar in Urban Politics
b. Electives ( 6 hours) chosen from:

P P ADM 6300, Leadership and Management in Nonprofit Organizations
P P ADM 6680, Negotiating Workplace Conflict
P P ADM 6490, Human Resources in the Public Sector
P P ADM 6950, Internship (in assignment relevant to emphasis area)
ECON 4500, Public Finance: State and Local

ECON 5700, Regional and Urban Economics
POL SCI 4460, Urban Planning and Politics

## * For Local Government Management specialization, a course not taken to fulfill the "required 6 hours" may be taken as an elective.

NOTE: Students interested in careers in local government management are strongly encouraged to take P P ADM 6490, Human Resources in the Public Sector, as one of their electives.

## 4) Nonprofit Organization Management and Leadership

a. Required ( 9 hours)<br>P P ADM 6300, Leadership and Management in Nonprofit Organizations<br>P P ADM 6310, American Philanthropy and Nonprofit Resource Development<br>P P ADM 6311, P P ADM 6312, P P ADM 6313, Staff Management Issues; Legal Issues;<br>Financial Issues in Nonprofit Organizations

b. Electives ( 3 hours) chosen from:

ACCTNG 3451, Accounting for Governmental and Nonprofit Entities
BUS AD 5100, Managerial Communication
BUS AD 5900, Law, Ethics and Business
MKTG 5700, Contemporary Marketing Concepts
P P ADM 4990, Selected Topics in Nonprofit Management \& Leadership
P P ADM 6490, Human Resources in the Public Sector
P P ADM 6501, Selected Topics in Nonprofit Management \& Leadership
P P ADM 6550, Strategic and Program Planning for Nonprofit Organizations
P P ADM 6680, Negotiating Workplace Conflict
P P ADM 6950, Internship (in assignment relevant to the emphasis area)
PSYCH 7412, Social Psychology

## 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, Internship (in an assignment relevant to the emphasis area) unless the student has significant public or nonprofit sector experience.

## I nternships

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, Introduction to Policy Analysis
P P ADM 6900, Cases in Public Policy Administration
P P ADM 6080, Microeconomics for Policy Analysis
P P ADM 6210, Public Sector Microeconomics
Public Administration and Budgeting
P P ADM 6400, Proseminar in Public Administration

P P ADM 6600, Organizational Behavior and Administrative Processes
P P ADM 6180, Governmental Budgeting and Financial Control

## Statistics, Research Methods and I nformation Technology

P P ADM 6010, Introduction to Policy Research
P P ADM 6750, Introduction to Evaluation Research Methods
P P ADM 6850, Information Technology and the Public and Nonprofit Sectors
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.
A. The graduate certificate in nonprofit management and leadership requires the completion of 18 credit hours. Nine of these are the following core courses:

1. P P ADM 6300, same as SOC WK 6300, Leadership and Management in Nonprofit Organizations (3 hours)
2. P P ADM 6310, same as SOC WK 6310, American Philanthropy and Nonprofit Resource Development (3 hours)
3. P P ADM 6311, same as SOC WK 6311, Staff Management Issues in Nonprofit Organizations (1 hour)
4. P P ADM 6312, same as SOC WK 6312, Legal Issues in Managing Nonprofit Organizations (1 hour)
5. P P ADM 6313, same as SOC WK 6313, Financial Issues in Managing Nonprofit Organizations (1 hour)
B. 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.
C. 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.
A. The graduate certificate in local government management requires the completion of 18 credit hours. Twelve of these are the following core courses:

1. P P ADM 6340, Seminar in City Administration or P P ADM 6350, Issues in Urban Management (3 hours) and
2. POL SCI 6470, Proseminar in Urban Politics or POL SCI 6471, Seminar in Urban Politics (3 hours) and
3. P P ADM 6490, Human Resources in the Public Sector ( 3 hours) and
4. P P ADM 6180, Government Budgeting and Financial Control (3 hours)
B. 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:

CRIMIN 6442, Communities and Crime
ECON 4500, Public Finance: State and Local
ECON 5700, Regional and Urban Economics
ECON 5750, Political Economy of Healthcare
POL SCI 4460, Urban Planning and Politics
POL SCI 6433, Elections, Public Opinion, and Public Policy
POL SCI 6470, Proseminar in Urban Politics
POL SCI 6471, Seminar in Urban Politics
P P ADM 6300/ SOC WK 6300, Leadership and Management of Nonprofit Organizations
P P ADM 6340, Seminar in City Administration
P P ADM 6350, Issues in Urban Management
P P ADM/ POL SCI 6400, Proseminar in Public Policy Administration
P P ADM 6510, Urban and Regional Planning and Public Policy
P P ADM 6600, Organizational Behavior and Administrative Processes
P P ADM 6680/ MGMT 5612, Negotiating Workplace Conflict
SOC 5430, Policy Mediation Processes
Other courses may be added as advisors deem appropriate for content.
C. 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 B (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.

Requirements for admission to the graduate certificate program include an undergraduate degree and a GPA of 2.75 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 s-page personal statement explaining how the certificate program fits in with the applicant's educational and professional goals. The letters and the statement should be sent directly to the PPA office.

Minimal requirements of admission to the graduate certificate program are the same as those required for admission to the Graduate School: an undergraduate degree, and a GPA of 2.75 or better.

## Nonprofit Organization Management and Leadership Certificate (Undergraduate)

The university offers an undergraduate certificate program for students who want to become professional staff, board members, or other leaders of nonprofit and voluntary organizations, as well as those who are currently in the field.

The certificate requires the completion of 18 semester hours. Nine of these hours must be the following core courses:

P P ADM 4911, same as POL SCI 4911, or SOC WK 4911 (1 hour) Staff Management Issues in Nonprofit Organizations
P P ADM 4912, same as POL SCI 4912, or SOC WK 4912 (1 hour) Legal Issues in Managing Nonprofit
Organizations
P P ADM 4913, same as POL SCI 4913, or SOC WK 4913 (1 hour) Financial Issues in Managing Nonprofit Organizations
P P ADM 4940, same as SOC 4940 or SOC WK 4940 (3 hours) Leadership and Management in Nonprofit Organizations
P P ADM 4960, same as POL SCI 4960, or SOC WK 4960 (1 hour)American Philanthropy and Nonprofit Resource Development
The remaining 9 hours of electives can be selected from the following courses:
Communication
COMM 2230, Small Group Communication
COMM 2231, Communication in the Organization
COMM 2240, Persuasive Communication
COMM 3358, Communication in Public Relations

## English

ENGL 3120, Business Writing
ENGL 3130, Advanced Business and Technical Writing
ENGL 3280, Public Relations Writing (Same as MEDIA ST 2228)
Management
MGMT 3600, Management and Organizational Behavior
MGMT 3611, Advanced Management and Organizational Behavior
MGMT 3621, Human Resource Management
Marketing
MKTG 3700, Basic Marketing
Media Studies
MEDI A ST 2228, Public Relations Writing (Same as ENGL 3280)
Political Science
POL SCI 3420, Public Personnel Management
POL SCI 3440, Public Budgeting
Psychology
PSYCH 2222, Group Processes in Organization
PSYCH 3320, Personnel Assessment
Social Work
SOC WK 4300, Intervention Strategies for Social Work with Organizations and Communities

## Sociology

SOC 4312, Sociology of Wealth and Poverty
SOC 4336, Organizations and Environments

## 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 found careers as budget analysts, transportation planners, and human resources managers with local, regional, state, and federal agencies, and the nonprofit sector.

## Course Descriptions

P P ADM 4911 Staff Management Issues in Nonprofit Organizations (1)

Same as POL SCI 4911 and SOC WK 4911. Prerequisite: Junior Standing. 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 4912 Legal Issues in Managing Nonprofit Organizations (1)
Same as POL SCI 4912 and SOC WK 4912. Prerequisite: J unior standing. 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 4913 Financial Issues in Managing Nonprofit Organizations (1)

Same as POL SCI 4913 and SOC WK 4913. Prerequisite: Junior standing. 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 4940 Leadership and Management in Nonprofit Organizations (3)
Same as POL SCI 4940, SOC WK 4940, and SOC 4940. Prerequisite: Junior standing. 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 4960 American Philanthropy and Nonprofit Resources Development (3)
Same as POL SCI 4960 and SOC WK 4960. Prerequisite: Junior standing or consent of instructor. 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 4990 Selected Topics in Nonprofit Management and Leadership (3)
Prerequisites: Junior 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 6000 Introduction to Policy Analysis (3)
Same as POL SCI 6410. Systematic development of a critical/analytic base for dealing with public policy.
P P ADM 6010 I ntroduction to Policy Research (3)
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)

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 Reading and Research in Public Policy (1-10)
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)

Same as BUS AD 5450. Prerequisite: BUS AD 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)

Same as ECON 5500. Prerequisites: ECON 3001, 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 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.

Same as SOC WK 6300. Prerequisite: 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

Same as SOC WK 6310. Prerequisite: 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)

Same as SOC WK 6311. Prerequisite: 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)

Same as SOC WK 6312. Prerequisite: 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)

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)

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 I ssues in Urban Management (3)

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)

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 impacts. Specific topics may include administrative accountability, intergovernmental relations, public/private interaction, implementation processes, bureaucratic expertise, the legal environment of public policy administration, and public service and merit issues.

## P P ADM 6430 Health Care Policy (3)

Same as GERON 6443, POL SCI 6443, SOC 6443, and SOC WK 6443. (MSW students will normally take the social policy foundation course prior to enrolling in this course). Prerequisites: Graduate standing and 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)

Same as GERON 6444, POL SCI 6444, and SOC 6444. Prerequisite: 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.

Same as POL SCI 6446 and SOC 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 6490 Human Resources in the Public Sector (3)

Same as POL SCI 6449 and SOC WK 6449. Prerequisite: 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)
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)

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)
Prerequisite: Graduate standing or consent of instructor. Focuses on the interdependent processes of urbanization and public policy. Students will acquire an understanding of urban planning and public policy in North America.

P P ADM 6550 Strategic and Program Planning for Nonprofit Organizations (3)
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)
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)

Same as MGMT 5612. Prerequisites: P P ADM/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)

Same as SOC 5475. 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 designs.

## P P ADM 6800 Management I nformation Systems (3)

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 I nformation Technology and the Public and Nonprofit Sectors (1)

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, egovernment, strategic design, and the use of information technology to address public policy questions.

## P P ADM 6900 Cases in Public Policy Administration (3)

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.

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## P P ADM 6950 Internship (3)

Independent study involving work with an appropriate public, private, or nonprofit agency.

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## Pierre Laclede Honors College

Course Descriptions

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## Pierre Laclede Honors College Home Page

The Pierre Laclede 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.

- 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.


## Faculty

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. These faculty are:

Robert M. Bliss, Associate Professor, Dean
Ph.D, University of Wisconsin-Madison)
Nancy Gleason, Teaching Professor, Associate Dean, and Director of Writing.
M.A., University of Missouri-St. Louis

Daniel Gerth, Associate Teaching Professor and Assistant Dean
M.A., University of Missouri-Columbia

Kimberly Baldus, Teaching Professor.
Ph.D., Northwestern University
Birgit Noll, Teaching Professor
Ph.D., Washington University in St. Louis
Chad Hankinson, Associate Teaching Professor
M.A., University at Buffalo, SUNY

Gerianne Friedline, Assistant Teaching Professor
M.A., University of Missouri-St. Louis

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 honor 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).

## I ndependent 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.

## 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, 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, 1200, and 1201, and one course each from the Western Traditions and NonWestern 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 1100, Freshman Composition
HONORS 1200, Freshman Symposium: Cultural Traditions I
HONORS 1201, Freshman Symposium: Cultural Traditions II
HONORS 1110-1130, The Western Traditions Series
HONORS 1230, The American Traditions Series (elective as an alternate to Western Traditions)
HONORS 1310, 1330, The Non Western Traditions Series

## Second Year

Students take two of the following Honors classes:
HONORS 2010, Inquiries in the Humanities
HONORS 2020, Inquiries in the Fine and Performing Arts
HONORS 2030, Inquiries in the Social and Behavioral Sciences
HONORS 2050, Inquiries in the Sciences Series
HONORS 2060, Inquiries in Business Series
HONORS 2070, Inquiries in Education
HONORS 2071, Inquiries in Education (four-hour course)
HONORS 2080, Inquiries in Nursing
Honors students in the four-year program who take HONORS 3100 ("Writing the City") or HONORS $\mathbf{3 1 6 0}$ ("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.

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 or HONORS 3535). They may take more where this is compatible with their major and/or minor requirements. 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, 4910, 4915). During the final year, students also take HONORS 4100, a one-hour capstone for the Honors College writing program; HONORS 4100 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, Writing the City or HONORS 3160, 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 or HONORS 3535). 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, the honors writing portfolio, and at least one course chosen from the 3000 level or HONORS 3530 or HONORS 3535. 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 Laclede 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 Laclede Honors College Student Learning Outcomes.

Both four- and two-year programs share the same learning agendas:

1. 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.
2. 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 higherorder 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.

3. 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.

4. 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

## Pass/ Fail

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 I nstitution

Given its location in St. Louis, and because it is part of an urban land grant university, Pierre Laclede 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.

## I nternational 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-inLondon 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.

## Course Descriptions

Please note that all honors courses are planned to fulfill UMSL graduation requirements, primarily in general education and the state requirement for American history and government. For further guidance on these requirements, please see the university general education matrix.
Selected Honors courses may also meet divisional area study requirements, for instance in international studies or cultural diversity. Please note also that several Honors courses in the 2000, 3000 and 4000 levels, can be used to fulfill major, minor, and certificate requirements, where that has been agreed by other divisions or departments of the university.

Honors course lists and descriptions, published each semester before the beginning of the registration period,
identify clearly which seminars fulfill these various requirements. When in doubt, students are urged to consult their Honors College advisor.

I mportant note: Unless otherwise indicated, all Honors seminars and courses require students to obtain the consent at the Honors College during registration. In practice, "consent of the Dean of the Honors College" means consent of the student's Honors advisor.

HONORS 1100 Freshman Composition (3) [C]
Prerequisite: Consent of the Dean of the Honors College. Theory and practice of writing expository prose. Emphasis on individual tutorial. Assignments will be linked with topics discussed in other courses in the Honors
Freshman Year program.
HONORS 1110-1150 Western Traditions (3)
Prerequisite: 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 1110 Western Traditions: Humanities
HONORS 1130 Western Traditions: Social and Behavioral Sciences HONORS 1150 Western Traditions: the Sciences

Cultural Traditions I and II as ‘core’ seminars.
These symposium seminars (1200 and 1201) are normal freshman year requirements. Each has its own academic agenda, but both are also related-in theme, problem, or subject matter-to Honors Composition (1100), Western Traditions (1110-1150), American Traditions 1230, and Non-Western Traditions (1310-1330) seminars.

HONORS 1200 Freshman Symposium: Cultural Traditions I (3)
Prerequisite: Consent of the Dean of the Honors College. This 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)
Prerequisite: Consent of the Dean of the Honors College. This 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)
Prerequisite: Consent of the Dean of the Honors College. Honors seminars in the American Traditions series involve readings and discussion 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. American Traditions 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 1310-1330 Non Western Traditions (3)
Prerequisite: Consent of the Dean of the Honors College. Study of Non-Western societies, "traditional" or "modern," offers a reminder that, however defined, "the West" does not encompass the full range of human potentiality whether in terms of culture, values, behavior or ideas. Based on reading of significant primary texts and/or important secondary works, these seminars remind us of the realities of human diversity and provide perspectives on our own world. Non-Western Traditions seminars may be used to satisfy cultural diversity general education requirements.

HONORS 1310 Non-Western Traditions: Humanities HONORS 1330 Non-Western Traditions: Social and Behavioral Sciences

## HONORS 2010-2080 Honors I nquiries (3)

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. The course number may be repeated for credit whenever the topic is substantially different. Honors Inquiry course HONORS 2071 is a four-hour seminar offering.

## HONORS 2010 Inquiries in the Humanities

# HONORS 2020 Inquiries in the Fine and Performing Arts <br> HONORS 2030 I nquiries in the Social and Behavioral Sciences HONORS 2050 I nquiries in the Natural Sciences 

HONORS 2051 Inquiries in the Sciences: Laboratory or Field Work (1)
Prerequisite: Consent of the Dean of the Honors College. 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 HONORS 2070 Inquiries in Education HONORS 2071 Inquiries in Education (four-hour course) HONORS 2080 Inquiries in Nursing

HONORS 2310 Cultural Diversity in the Humanities (3)
This seminar focuses upon cultural diversity themes, texts, and perspectives within the humanities and meets cultural diversity graduation requirements.

HONORS 2330 Cultural Diversity in the Social Sciences (3)
This seminar focuses upon cultural diversity themes, texts, and perspectives within the social science meets cultural diversity graduation requirements.

## HONORS 3010-3070 Advanced Honors Seminar (3)

Prerequisite: 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 indepth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multi-disciplinary 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 3010 Advanced Honors Seminar in the Humanities HONORS 3020 Advanced Honors Seminar in the Fine and Performing Arts HONORS 3030 Advanced Honors Seminar in the Social and Behavioral Sciences HONORS 3060 Advanced Honors Seminar in Business HONORS 3070 Advanced Honors Seminar in Education

## HONORS 3075 Reflective Research in Education ( 2 or 3)

Prerequisite: Consent of the Dean of the Honors College. 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)

Prerequisites: Junior standing and 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)

Prerequisites: Junior standing and consent of the Dean of the Honors College This honors course, designed to meet the needs for students in the science disciplines, will satisfy the campus junior-level writing requirement. This 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 3530 Research Seminar (3)
Prerequisite: Consent of the Dean of the Honors College. Open only to Honors College students and not acceptable for graduate credit. Modeled on and for some students affording a preview of the postgraduate or professional research seminar, Honors Research seminars bring students face to face with primary research, as
appropriate in the library, the laboratory, and/or field work, utilizing appropriate disciplinary perspectives and secondary reading. These courses may be cross-listed with other advanced courses in appropriate departments/divisions of the university, and as such may carry specific course prerequisites and/or require the specific consent of the instructor.

## HONORS 3535 Research Seminar in the Social and Behavioral Sciences (4)

Prerequisites: Consent of the Dean of the Honors College and 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.

## HONORS 4100 Independent Portfolio Writing (1 or 2)

Prerequisites: Consent of the Dean of the Honors College and senior status. Open only to Honors College students and not acceptable for graduate credit. Students in this course will meet on a regular basis with the director of writing and other appropriate Honors faculty to revise and polish samples in the Honors writing portfolio which the student has compiled during his or her Honors College enrollment. The student will write an in-depth analysis of his or her writing and will select the best examples of writing in his or her Honors Portfolio. During this independent study, the student may request help with research skills, writing issues, or application procedures for post-graduate courses or employment. All students must take one credit hour; the two-credit hour option is available to students.

HONORS 4900 Independent Study in Honors (1-6)
Prerequisite: 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 no later than the deadline for university registration.

## HONORS 4910 I nternship. (1-6)

Prerequisites: Junior/Senior standing and consent of the Dean of the Honors College. This independent study course is designed for students who are participating in an approved, non-paid or paid internship. Often operating in conjunction with the student's major, the class requires an on-going journal and formal paper varying in length according to credit hours and hours of the internship work. Evaluation is based on the student's work, the completed form by supervisor of internship, and assigned papers and journal.

HONORS 4915 Honors I ndependent Off-Campus I nternship (1-6)
Prerequisite: Same as for HONORS 4910. 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 College internship supervisor.

## College of Nursing

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MSN, University of Missouri - St. Louis

## 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 B.S.N. 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 MissouriKansas City. Admission to the Ph.D. program is available at the post B.S.N. and M.S.N. levels. The Doctor of Nursing Practice program is offered in cooperation with the schools of nursing at the University of MissouriColumbia and the University of Missouri-Kansas City and prepares students for the highest level of advanced clinical nursing practice.

## I NTERNATI ONAL 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.

## CONTI NUI NG EDUCATI ON-EXTENSI ON 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.

## Undergraduate Studies

The College of Nursing provides course work leading to the Bachelor of Science in nursing (BSN). The program
is accredited by the Commission on Collegiate Nursing Education and the prelicensure 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/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. A part-time/evening pre-licensure option is available for qualified persons who wish to pursue a BSN degree on a part-time basis. Baccalaureate students meeting admission criteria may participate in the Pierre Laclede Honors College. Students who have been dismissed from another nursing program are not eligible for admission to the pre-licensure BSN program.

## Bachelor's of Science Degree in Nursing (BSN) - Admission to Traditional Four-Year Track or Part-time Evening and Weekend Option (Pre-licensure)

## Traditional 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 2.75 (as calculated by UMSL's Office of Admissions)
*Effective Fall 2013, the minimum core high school GPA requirement to earn a guaranteed clinical space will change from 2.75 to 2.9 .

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
- 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 from a regionally accredited college or university who do not qualify for a Guaranteed Clinical Spacebut do meet the following minimum criteriamay 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).
*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. 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* 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)
* 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 Optionunless 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
- Grade of C- or higher in all prerequisite courses


## 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.

Applicants with 24 or more transferable college credit hours* 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)
* 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
- 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:

## 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 Admission Criteria

## 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 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.

Applicants with 24 or more transferable college credit hours* 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)
* 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
- 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 15th
Regular acceptance - deadline - February 1st

For specific information regarding the B.S.N. degree program, contact Office of Student Services at (314) 5166066 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.

## 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 on weekends. The nursing clinical curriculum can be completed in three years following completion of general education courses. The pre-licensure accelerated track requires full-time study and can be completed in 15 months. The RN/BSN track is offered at selected metropolitan sites, on-campus, and by Internet. Clinical activities in the RN/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:

1. 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.
2. Integrate clinical reasoning and problem solving in professional practice.
3. Administer culturally competent, compassionate, holistic care to promote healthy outcomes for diverse individuals, families, communities, and populations during all life phases.
4. Use evidence-based practices to promote health, manage illness, and prevent injury among individuals, families, communities, and populations.
5. Utilize communication skills to enhance relationships with patients and families and collaboration among members of the health care team.
6. Assume responsibility and accountability for decisions and actions based on professional intrapersonal values, ethical and legal obligations, standards of practice, social justice, and economics.
7. Integrate principles of health education, management, leadership, quality care, and patient safety when organizing, coordinating, and engaging in professional practice.
8. Demonstrate knowledge of health care policies and finance in a regulatory environment and their influence on health care access and quality.
9. Exhibit motivation and self-direction in activities that contribute to lifelong personal, professional, and intellectual development.
10. 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 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
BIOL 1141, Human Physiology and Anatomy II
BIOL 1162, General Microbiology
CHEM 1052, Chemistry for Health Professions (or equivalent)
2) Behavioral and social science course work

PSYCH 1003, General Psychology
PSYCH 1268, Human Growth and Behavior
ECON 1000, Introduction to American Economy (or equivalent)
Social science elective
3) Humanities

Any Philosophy course (as part of the University's 3 humanities requirement)

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4) Nursing
NURSE 1010, Orientation to Nursing
NURSE 2103, Nutrition and Health (or equivalent)
NURSE 2105, Communication in the Nursing Profession
NURSE 3799, Quantitative Analysis in the Health Sciences (or equivalent)
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## Nursing Course Work Requirements

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PRE-LI CENSURE - 4 year traditional and accelerated tracks
NURSE 2101, Introduction to Nursing (required for traditional track only)
NURSE 3101, Nursing and Health *
NURSE 3106, Assessment of Clients in Health and IIlness*
NURSE 3110, Pathophysiological Bases of Nursing Practice
NURSE 3111, Pharmacotherapeutics in Nursing Practice
NURSE 3205, Adult Health Nursing I*
NURSE 3206, Adult Health Nursing II*
NURSE 3214, Psychiatric Mental Health Nursing*
NURSE 3215, Nursing of Women and Childbearing Families*
NURSE 3216, Child and Family Health Nursing*
NURSE 3804, Ethical and Legal Dimensions of Nursing Practice
NURSE 3807, Nursing Research
NURSE 3808, Management and Leadership in Nursing
NURSE 3817, Introduction to Nursing and Health Informatics
NURSE 4300, Community Health Nursing*
NURSE 4310, Senior Synthesis*
Nursing elective (required for 4 year traditional track students through Spring 2014 graduating cohort)
* 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.
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## POST LI CENSURE 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 FLEX Program offers flexibility and accessibility in a part-time program. The FLEX Program allows students to choose to complete their BSN online, on campus, or at various outreach sites in the St. Louis area.

## 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 FLEX required nursing courses

NURSE 3807, Nursing Research (or equivalent)
NURSE 3808, Management and Leadership in Nursing
NURSE 3817, Introduction to Nursing and Health Informatics
NURSE 3900, Dimensions of Professional Nursing
NURSE 3920, Health Assessment*
NURSE 4901, Family and Community Nursing*
NURSE 4905, Values in Professional Nursing
NURSE 4911, Synthesis in Nursing Practice*

* Includes a laboratory and/or clinical component

RN to BSN students are required to complete a standardized assessment exam during the final nursing course as part of the program evaluation.

## Graduate Studies

## 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 may complete one of the Post-MSN graduate certificates. Our MSN programs are offered cooperatively with the University of Missouri-Kansas City and the University of Missouri-Columbia. 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, Neonatal 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 after completing the required two years of faculty experience. 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

- B.S.N. or M.S.N. 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 and NURSE 6955. Deadline for fall admission is February 15th.

## Degree Requirements

## MSN Core Courses (required of all MSN students)

NURSE 6106, Policy, Organization, and Financing of Health Care
NURSE 6111, Theoretical Foundations in Nursing
NURSE 6120, Population-based Foundations of Health
NURSE 6130, Research for Evidence-Based Practice

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Advanced Nursing Practice Nurse Educator Emphasis area
NURSE 6309, Role of the Nurse Educator
NURSE 6320, Learning and Curriculum Development in Nursing
NURSE 6321, Instructional Strategies in Nursing Education
NURSE 6322, Evaluation Strategies in Nursing
NURSE 6518, Pathophysiology for Advanced Nursing Practice
NURSE 6739, Adult Primary Care 1 OR
NURSE 6743, Child Health 1 OR
NURSE 6746, Woman's Health 1
NURSE 6950, Advanced Nursing Practice
NURSE 6952, Synthesis Practicum
EDUC 6410, The Adult Learner
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Advance Practice Nurse Nurse Practitioner Emphasis area
(Emphasis areas for adult nurse practitioner, family nurse practitioner, pediatric nurse practitioner, and women's health nurse practitioner)

NURSE 6509, Role of the Nurse Practitioner
NURSE 6518, Pathophysiology for Advanced Nursing Practice (Pediatric Nurse Practitioner students take NURSE 6519 Advanced Pediatric Pathophysiology)
NURSE 6520, Pharmacology for Advanced Nursing Practice (Pediatric Nurse Practitioner students take NURSE 6529, Advanced Pharmacology for Pediatric Practice)
NURSE 6524, Health Assessment for Advanced Nursing Practice (Pediatric Nurse Practitioner students may take NURSE 6526, Advanced Pediatric Physical Assessment)
NURSE 6530, Clinical Diagnostics
NURSE 6739, Adult Primary Care I: Diagnosis \& Management in ANP AND
NURSE 6740, Adult Primary Care II: Diagnosis \& Management in ANP OR
NURSE 6741, Family Health I: Diagnosis \& Management in ANP AND
NURSE 6742, Family Health II Diagnosis \& Management in ANP OR
NURSE 6743, Child Health I: Diagnosis \& Management in ANP AND
NURSE 6744, Child Health II Diagnosis \& Management in ANP OR
NURSE 6746, Women's Health I: Diagnosis \& Management in ANP AND
NURSE 6747, Women's Health II: Diagnosis \& Management in ANP AND
NURSE 6954, Advanced Practice Nursing: Internship I
NURSE 6955, Advanced Practice Nursing: Internship II
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 UM-KC:
N5547N Neonatal Assessment AND
N5548N Neonatal Physiology/Pathophysiology AND
N5549N Neonatal Pharmacology AND
N5564N Neonatal Nursing I AND
N5566N Neonatal Nursing II AND
N5572NI Preceptorship I AND
N5574II Preceptorship II AND
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 Nurse Practitioner, Family Nurse Practitioner, Pediatric 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 Nurse Practitioner Certificate
NURSE 6509, Role of the Clinical Nurse Specialist/Nurse Practitioner (2)
NURSE 6518, Pathophysiology for Advanced Nursing Practice (3)
NURSE 6524, Health Assessment for Advanced Nursing Practice (3)
NURSE 6520, Pharmacology for Advanced Nursing Practice (3)
NURSE 6530, Clinical Diagnostics (2)
NURSE 6739, Adult Primary Care I (5)
NURSE 6740, Adult Primary Care II: Diagnosis \& Management in Advanced Nursing Practice (5)
NURSE 6954, Advanced Practice Nursing: Internship I(4)
NURSE 6955, Advanced Practice Nursing: Internship II(4)
Post-MSN Family Nurse Practitioner Certificate
NURSE 6509, Role of the Clinical Nurse Specialist/Nurse Practitioner(2)
NURSE 6518, Pathophysiology for Advanced Nursing Practice (3)
NURSE 6524, Health Assessment for Advanced Nursing Practice (3)
NURSE 6520, Pharmacology for Advanced Nursing Practice (3)
NURSE 6530, Clinical Diagnostics (2)
NURSE 6741, Family Health I (5)
NURSE 6742, Family Health II: Diagnosis \& Management in Advanced Nursing Practice (5)
NURSE 6954, Advanced Practice Nursing: Internship I (4)
NURSE 6955, Advanced Practice Nursing: Internship II(4)
Post-MSN Pediatric Nurse Practitioner Certificate
NURSE 6509, Role of the Clinical Nurse Specialist/Nurse Practitioner(2)
NURSE 6519, Advanced Pediatric Pathophysiology(3)

NURSE 6526, Advanced Health Assessment for Pediatric Nursing Practice(3)
NURSE 6529, Advanced Pharmacology for Pediatric Nursing Practice(3)
NURSE 6530, Clinical Diagnostics (2)
NURSE 6743, Child Health I (5)
NURSE 6744, Child Health II: Diagnosis \& Management in Advanced Nursing Practice( (5)
NURSE 6954, Advanced Practice Nursing: Internship I(4)
NURSE 6955, Advanced Practice Nursing: Internship II(4)
Post-MSN Women's Health Nurse Practitioner Certificate
NURSE 6509, Role of the Clinical Nurse Specialist/Nurse Practitioner(2)
NURSE 6518, Pathophysiology for Advanced Nursing Practice(3)
NURSE 6524, Health Assessment for Advanced Nursing Practice(3)
NURSE 6520, Pharmacology for Advanced Nursing Practice(3)
NURSE 6530, Clinical Diagnostics(2)
NURSE 6746, Women's Health I (5)
NURSE 6747, Women's Health II: Diagnosis \& Management in Advanced Nursing Practice(5)
NURSE 6954, Advanced Practice Nursing: Internship I(4)
NURSE 6955, Advanced Practice Nursing: Internship II(4)
Post-MSN Advanced Nursing Practice with Educator Functional Role
NURSE 6309, Role of the Nurse Educator
NURSE 6320, Learning and Curriculum Development in Nursing
NURSE 6321, Instructional Strategies in Nursing Education
NURSE 6322, Evaluation Strategies in Nursing
NURSE 6518, Pathophysiology for Advanced Nursing Practice
NURSE 6739, Adult Primary Care 1 or
NURSE 6743, Child Health 1 OR
NURSE 6746, Woman's Health 1
NURSE 6950, Advanced Nursing Practice
NURSE 6952, Synthesis Practicum
EDUC 6410, The Adult Learner

## Doctor of Nursing Practice (DNP)

The focus of the DNP program is preparation, at the highest level, 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 patience 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 certificationeligible 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 7402, Research Institute I during the first summer semester of the program.

## Degree Requirements

Completion of the DNP program requires the following courses:
NURSE 7402, Research Institute 1 (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, Clinical Scholarship 1 (3)
NURSE 7292, Clinical Scholarship 2 (3)
NURSE 7293, Clinical Scholarship 3 (3)
NURSE 7299, DNP Seminar (1)
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, NURSE 7292, NURSE 7293, NURSE 7299.

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-Kansas City and the University of Missouri-Columbia. 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

The deadline for Ph.D. applications for admission is April 1. 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. ( post-BSN track) OR from a nationally accredited master's program with a 3.5 minimum GPA (4.0) scale. (post-MSN 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, Post-BSN students complete a minimum of 77 hours of graduate-level course work. Post-MSN students complete 47 credit hours. A maximum of $30 \mathrm{M} . \mathrm{S} . \mathrm{N}$. 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 and Theory: 14 or more nursing credits including:

- Nursing science
- Advanced nursing theory development and validation

Nursing Research Methods: 12 or more nursing credits including:

- Quantitative Methods in nursing
- Qualitative Methods in nursing
- Biostatistics

Cognates: 9 or more credits outside of the discipline of nursing which support the selected dissertation topic. Dissertation: Minimum is 12 credits.
Post BSN students must also complete the core courses in the MSN program as these are pre-requisites for the nursing Ph.D. courses. Students who anticipate becoming faculty members are also encouraged to complete the nurse educator functional role (see the MSN Program).

## Professional Organizations

## Sigma Theta Tau I nternational 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.

## College of Optometry

Graduate Studies | Curriculum | Course Descriptions |

## College of Optometry Home Page

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.

The College of Optometry Bulletin

## Administration and Faculty

Larry J. Davis, Associate Professor and Dean
O.D., Indiana University; Residency, Contact Lenses, University of MissouriSt. Louis

Gerald A. Franzel, Associate Clinical Professor; Associate Dean for the Division of Continuing Education
O.D., University of Houston

Edward S. Bennett, Associate Professor; Assistant Dean for Student Services and Alumni Relations;
CoChief, Contact Lens Service
M.S.Ed., O.D., Indiana UniversityBloomington

Ralph P. Garzia, Associate Professor and Assistant Dean for Academic and Clinical Programs
O.D., Residency, Pediatric Optometry, Pennsylvania College of Optometry

Jerry L. Christensen, Professor Emeritus and Dean Emeritus
O.D., Ph.D., The Ohio State University

Vinita A. Henry, Clinical Professor and Director, Clinical Operations; Director, Residency Programs; Co-Chief
Contact Lens Service and Program Coordinator for Residency, Contact Lenses
O.D., Residency, Contact Lenses, University of Missouri-St. Louis

Raymond I. Myers, Clinical Professor
O.D., Indiana University

Carol K. Peck, Professor Emeritus
Ph.D., Postdoctoral Fellow, University of California■os Angeles
Timothy A. Wingert, Professor Emeritus, Chief of Third-year Primary Care Service
O.D., Illinois College of Optometry

William G. Bachman, Associate Professor
M.S., University of Alabama-Birmingham, O.D., Southern College of Optometry

Carl J. Bassi, Associate Professor; Director of Research and Graduate Studies,
Ph.D., Vanderbilt University, Postdoctoral Fellow, University of Southern California, Doheny Eye Institute
Keshia Sims Elder, Associate Clinical Professor
O.D., University of Alabama at Birmingham, M.S. Vision Science University of Alabama Birmingham

Thomas Landgraf, Clinical Associate Professor
O.D., Illinois College of Optometry

Residency, Primary Care, Pennsylvania College of Optometry
William F. Long, Associate Professor Emeritus, Ph.D., Michigan State University
O.D. Indiana University
W. Howard McAlister, Associate Professor
M.A., Webster College, M.P.H., University of Illinois at the Health Sciences Center Qhicago,
O.D., The Ohio State University

Erwin Wong, Associate Teaching Professor
O.D., Southern California College of Optometry; Ph.D., University of Houston Postdoctoral Fellow, University of California, Berkeley, and Washington University
Kathleen Boland, Assistant Clinical Professor, Director, Harvester Eye Center
O.D., University of Missouri-St. Louis

J ennifer Bulmann, Assistant Clinical Professor
O.D., Illinois College of Optometry, Residency, Geriatric and Rehabilitative, Birmingham VA Medical Center

J ohn Crane, Assistant Clinical Professor
O.D., University of Missouri-St. Louis

Julie Ott DeKinder, Assistant Clinical Professor and Coordinator, Emergency Eye Services; Program

Coordinator for Residency, Contact Lenses
O.D., Northeastern State University; Residency, Cornea and Contact Lens, University of Missouri-St. Louis

Aaron S. Franzel, Assistant Clinical Professor, Chief Pediatric/Binocular Vision Service, Pediatrics; Program Coordinator for Residency, Binocular Vision
O.D., University of MissouriSt. Louis

Christine Garhart, Assistant Teaching Professor
D.V.M., Ph.D., University of Missouri-Columbia, Case Western Reserve University

Christine Gavett, Assistant Professor
O.D., University of Missouri-St. Louis

Alexander J. Harris, Assistant Clinical Professor, Director of Externship Programs and Minority Affairs Advisor
M.A., Washington University, O.D., University of MissouriSt. Louis

Julie Hutchinson, Assistant Professor
O.D., Pennsylvania College of Optometry; Primary Care/Geriatrics Residency

Edward Jarka, Assistant Clinical Professor; Coordinator, Eye Health Management Services
O.D., Illinois College of Optometry; M.S., Western Illinois University

Linda Marks, Assistant Clinical Professor
O.D., Ferris State University: Residency, Pediatric Optometry, University of Missouri-St. Louis

Angel Novel, Assistant Clinical Professor
O.D., University of Missouri-St. Louis: Residency, Ocular Disease/Primary Care, Hudson Valley VA Health Care System, Montrose NY
Mary Beth Rhomberg, Assistant Professor
O.D., University of Missouri-St. Louis

Pamela Snyder, Assistant Clinical Professor
O.D., Michigan College of Optometry at Ferris State University

## On-Campus Adjunct Faculty:

J effrey L. Weaver, Adjunct Professor
M.S., The Ohio State University, M.B.A., Drury College; O.D., Pennsylvania College of Optometry; Residency, Family Practice, The Ohio State University
Lee J. Browning, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis, Residency, Northeastern State University, Tahlequah, OK

Brian Brunig, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Raneat Cohen, Adjunct Assistant Professor
O.D., Indiana University; Residency, Ocular Disease, Dayton VA Medical Center

Chris Gilmartin, Adjunct Assistant Professor
O.D., Contact Lens Residency, University of Missouri-St. Louis

Beth A. Henderson, Adjunct Assistant Professor
O.D., The Ohio State University

Chantel J acques, Adjunct Assistant Professor
O.D., NOVA University

Eric Polk, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

J oseph Venverloh, Adjunct Assistant Professor
O.D., University of Houston, M.S. University of Houston

Gary Vogel, Adjunct Assistant Professor
O.D., Ohio State University

Deborah I adevito, Specialist
M.Ed., University of Missouri-St. Louis

Thomas LaRosa, Specialist
M.Ed., University of Missouri-St. Louis

## Off-Campus Adjunct Faculty

Sean Mulqueeny, Adjunct Associate Professor
O.D., University of MissouriSt. Louis

Richard Wilson, Adjunct Associate Professor
O.D., University of Missouri-St. Louis

Paul Ajamian, Adjunct Assistant Professor
O.D., New England College of Optometry

Levent Akduman, Adjunct Assistant Professor
M.D., Hace Hepe, University of Turkey

Michelle Beck, Adjunct Assistant Professor
Mary Bigelow, Adjunct Assistant Professor,
OD, Indiana University,
Residency in Hospital-Based Optometry Wilford Hall Medical Center, San Antonio, Texas
J anet Boschart, Adjunct Assistant Professor
O.D., Southern College of Optometry,

Residency, Primary Care, Northeastern State University
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Residency, Cornea and Contact Lens, Illinois College of Optometry
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O.D., University of MissouriSt. Louis

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O.D., Illinois College of Optometry

Joseph Costellano, Adjunct Assistant Professor
Walter Choate, Adjunct Assistant Professor
O.D., Southern College of Optometry

Elsie Corgiat, Adjunt Assistant Professor
O.D., Illinois College of Optometry

Jamie Cornett, Adjunct Assistant Professor
Sara Crussana, Adjunct Assistant Professor
O.D., New England College of Optometry

Michelle Dent, Adjunct Assistant Professor
O.D., V.A. Wichita, Kansas

Anthony Dewilde, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis, Residency, Hospital Based/Rehabilitative, Kansas City Veterans Affairs

Medical Center
Stephanie Erker, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Laura Evans, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Robert Feibel, Adjunct Assistant Professor
MD, Harvard Medical School, Resident in Opthalmology Barnes Hospital St. Louis, MO
Martin Fox, M.D., Adjunct Assistant Professor
John Galanis, Adjunct Assistant Professor
M.D., St. Louis University

John M. Garber, Adjunct Assistant Professor
O.D., Southern College of Optometry

Angella Gentry, Adjunct Assistant Professor
Douglas Grayson, M.D., Adjunct Assistant Professor
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O.D., Southern California College of Optometry

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Steven Hill, Adjunct Assistant Professor
O.D., Illinois College of Optometry

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J ames Hoekel, Adjunct Assistant Professor
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J ames Hollman, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Timothy Hug, Adjunct Assistant Professor
O.D., University of Houston College of Optometry

John I nsiga, Adjunct Assistant Professor
Kristen J aloszynski-Meyer, Adjunct Assistant Professor
O.D., SUNY College of Optometry

Residency, Ocular Disease/Low Vision Rehabilitation, Kansas City Veteran's Affairs Medical Center
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O.D., Pacific University College of Optometry

Deborah Kerber, Adjunct Assistant Professor
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Abby Kilgore, Adjunct Assistant Professor
Sean Knaak, Adjunct Assistant Professor
O.D., Indiana University School of Optometry

Residency, Hospital Based Rehabilitative Optometry, Kansas City Veterans Affairs Medical Center
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O.D., University of Missouri-St. Louis

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O.D., SUNY State College of Optometry, Residency Pediatric Care, Pediatric disease, Strabismus, Amblyopia and Specialty Contact Lens Fitting, Children's Mercy Hospital and Clinics
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O.D., Indiana University School of Optometry

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Administration at Fayetteville
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Jay Pepose, Adjunct Assistant Professor
M.D., Ph.D., University of California Los Angeles School of Medicine

Carly Phillips, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Salena Pho, Adjunct Assistant Professor
David Picker, Adjunct Assistant Professor
Thomas I. Porter, Adjunct Assistant Professor
O.D., Southern College of Optometry

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M.D. New York University School of Medicine

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J ane Shea, Adjunct Assistant Professor
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John Sullivan, Adjunct Assistant Professor
O.D., Illinois College of Optometry

Kory Thoma, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Christine Tran, Adjunct Assistant Professor<br>Claude Valenti, Adjunct Assistant Professor<br>O.D. University of Pennsylvania<br>George Veliky, Adjunct Assistant Professor<br>O.D., New England College of Optometry,<br>Residency, Ocular Disease, Omni Eye Services<br>Michael Veliky, Adjunct Assistant Professor<br>Mitch Vogel, M.D., Adjunct Assistant Professor<br>John Volosin, Adjunct Assistant Professor<br>O.D., Northeastern State University Oklahoma College of Optometry, Tahlequah, OK<br>Mark Wade, Adjunct Assistant Professor<br>Michael White, Adjunct Assistant Professor<br>O.D., Southern College of Optometry, Hospital Based Primary Care Residency, VA<br>Paul Whitten, Adjunct Assistant Professor<br>O.D., University of Missouri-St. Louis<br>Carrie Williams, Adjunct Assistant Professor<br>O.D., Southern College of Optometry<br>James Williamson, Adjunct Assistant Professor<br>O.D., Southern College of Optometry, Residency, Veterans Affairs Medical Center<br>Melissa Wisniewski, Adjunct Assistant Professor<br>O.D., Pennsylvania College of Optometry<br>Burton Wisotsky, M.D., Adjunct Assistant Professor<br>Julie Wolfe, Adjunct Assistant Professor<br>J ack Yager, Adjunct Assistant Professor<br>O.D., Ohio State University<br>Dwayne Young, Adjunct Assistant Professor<br>O.D., Indiana University<br>Richard Zimbalist, Adjunct Assistant Professor<br>O.D. Pennsylvania College of Optometry, Residency Ocular Disease Baltimore VA Medical Center

## 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, library, 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 postdoctoral residents. The Center for Eye Care includes four locations: the University Eye Center on the UMSL South Campus, the Optometric Center in the Central West End of the city of St. Louis, the East St. Louis Eye Center on the campus of East St. Louis Community College, and Harvester Eye Center in St. Charles, MO. 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 optometric 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, full time 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, and the Harvester Eye 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 at a number of domestic and 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 MissouriSt. 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 20 currently accredited schools 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 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 preoptometry 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 Laclede 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 Laclede Honors College program. For more information about the Scholars Program, contact the Pierre Laclede 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

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Semester:
English - 2
Biology (including laboratory)* - 3
Physics (including laboratory) - 2
Chemistry**
General (including laboratory) - 2
Organic (including laboratory) - 1
Mathematics ** *
Calculus - 1
Statistics - 1
Psychology - 2
Liberal Arts - 2
Quarter :
English - 3+
Biology (including laboratory)* - 4
Physics (including laboratory) - 3
Chemistry**
General (including laboratory) - 3
Organic (including laboratory) - 2
Mathematics ** *
Calculus - 1
Statistics - 1
Psychology - 2
Liberal Arts - 2+
```

* One semester (or one quarter) of Microbiology with laboratory is a requirement. One semester of Anatomy or Physiology is recommended.
+Courses may be taken and accepted for prerequisite course work AP (Advanced Placement) without a grade if the student receives a 320 or higher on the Reading Comprehensive section of the OAT examination (see below, Admission Test and has a GPA of 3.0.
** One semester of Biochemistry, Cell Biology or Human/Comparative Physiology is recommended.
***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.

## 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:

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Optometry Admission Testing Program
211 East Chicago Ave.
Suite 1846
Chicago, IL 60611
(312) 440 2693
http://www.opted.org
To apply to take the OAT, please click on the OAT link on www.opted.org (on right).
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## 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 been offered admission and that 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 J anuary 15. To be considered for merit scholarships, there is an early enrollment deadline. All materials must be received by J anuary 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.

## I nternational 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:

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Educational Credentials Evaluators, Inc.
Post Office Box 514070
Milwaukee, WI 53203-3470
(414) 289-3400
Fax: (414) 289-3411
E-mail: eval@ece.org
Web site: http://www.ece.org
World Education Services
P.O. Box }508
New York, N.Y. 10274-5087
(212) 966-6311
Fax: (212) 939-6100
Email: info@wes.org
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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:

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University of Missouri-St. Louis
Office of International Student Services
One University Blvd.
St. Louis, MO 63121-4499
(314) 516-5229
iss@umsl.edu
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## 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 approximately 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).

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.

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 15 th, $\$ 250$ will be refunded. 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

The Student Financial Aid Office maintains a Web site at 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' 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 between the third and fourth 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.

Currently, twelve nonresident positions for all four years are allocated by state reciprocal agreements 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:

The College of Optometry currently has a State contract agreement for residents of Nebraska (this is supported by and is at the funding discretion of the Nebraska State Legislature). This contract permits the College of Optometry to admit one eligible Nebraska resident in each entering class to receive the award. For detailed information about the contract and to be certified as a bona fide Nebraska resident, contact:

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Dr. Richard Hoffman
University of Nebraska
3835 Holdrege
Lincoln, NE 68583
(402) 472-7115
University of Nebraska Website
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## 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:

1. basic body systems, with special emphasis on the ocular and visual system and their interrelationships to the body as a whole;
2. the impact of genes and their interaction with behavior, diet and the environment on human health;
3. 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;
4. the structures and processes contributing to the development of refractive error and other optical or perceptual abnormalities of the visual system;
5. 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;
6. 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;
7. vision therapy and other rehabilitative methods used for the management of common visual disorders;
8. the psychosocial dynamics of the doctor/patient relationship and an understanding of the social, psychological, and economic forces affecting diverse patient populations;
9. the practice management structure and strategies as they pertain to various practice settings;
10. the critical elements of verbal and written communications and understanding of the need for clear and appropriate documentation of patient encounters;
11. the concepts of refractive surgery and its management;
12. the conscientious use of current best practices in patient care decision making;
13. a broad-based multidisciplinary understanding of patient care;
14. an appreciation for and a commitment to lifelong learning;
15. information management and technology in the delivery of eye and health care;
16. 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 school are accepted by those states requiring continuing education credit for re-licensure.

Continuing Education course information may be obtained by contacting:
University of Missouri St. Louis College of Optometry
Office of Continuing Education
One University Blvd.
St. Louis, MO 631214499
(314) 5165615

## Career Outlook

## Doctor of Optometry Degree

Doctors of Optometry are independent primary health care providers who examine diagnose, treat and manage diseases and disorders of the visual system, the eye and associated structures as well as diagnose related systemic conditions. They examine the internal and external structure of the eyes to diagnose eye diseases like glaucoma, cataracts and retinal disorders; systemic diseases like hypertension and diabetes; and vision conditions like nearsightedness, farsightedness, astigmatism and presbyopia. Doctors of Optometry also do testing to determine the patient's ability to focus and coordinate the eyes, and to judge depth and see colors accurately. They prescribe eyeglasses and contact lenses, low vision aids, vision therapy and medicines to treat eye diseases.

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 near point visual tasks, and computer usage amont 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 good 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; 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.

## School of Social Work

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## UMSL Home

School of Social Work Home Page

## General I nformation

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 the 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 though University Outreach.

# School of Social Work: Gerontology 

Course Descriptions | School of Social Work | Social Work Index |

## UMSL Home <br> Gerontology Programs Home Page <br> Faculty

Meuser, Thomas M., Associate Professor, Social Work and Gerontology and Director
Ph.D., University of Missouri-St. Louis
Hurwicz, MargoLea, Associate Professor, Anthropology and Gerontology
Ph.D., University of California■ds Angeles
Isaac-Savage, Paulette, Associate Professor, Education*
Ph.D., University of Georgia
Pickard, Joseph G., Associate Professor, Social Work *
Ph.D., Washington University
Porterfield, Shirley L., Associate Professor, Social Work
Ph.D., University of Wisconsin-Madison
Steffen, Ann M., Associate Professor, Psychology and Gerontology*
Ph.D., Indiana University
Usui, Chikako, Associate Professor of Sociology*
Ph.D., Stanford University
Shen, Huei-Wern, Assistant Professor, Social Work
Ph.D., University of Michigan
Yakimo, Richard, Assistant Professor, Nursing*
Ph.D., Saint Louis University Boland, Kathleen, Clinical Assistant Professor, Optometry *
O.D., University of Missouri-St. Louis

## Tolea, Magda, Postdoctoral Fellow, Gerontology

Ph.D., University of Maryland at Baltimore
*Faculty affiliated with the Gerontology Program based on teaching and/or research interests in the field of aging.

Faculty from 11 departments, colleges and schools are involved in the undergraduate and graduate programs in gerontology.

## Master of Science in Gerontology

The master of science degree in gerontology program is a multidisciplinary program designed to prepare students for program management or direct service positions working with the aged. 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 and Aging- 3 credits from the following:

GERON (P P ADM, POL SCI) 6443, Health Care Policy
GERON (SOCWK/ PPADM/ POL SCI/ SOC) 6444, Seminar in Public Policy and Aging
B. Health and Physical Aspects of Aging - 3 credits from the following:

GERON 6441, Aging and Health Behavior GERON 6470,Epidemiology of Aging
C. Sociocultural Aspects of Aging-3 credits from the following:

GERON (ANTHRO) 5440, Cultural Aspects of Aging
GERON (SOC) 5361, Advanced Social Gerontology
D. Clinical and Psychosocial Aspects of Aging- 6 credits from the following:

GERON (PSYCH) 5376, Psychopathology and Aging
GERON (SOC WK) 6120, Theory \& Practice with Older Adults
GERON (SOC WK) 6130, Interviewing Older Adults \& Life Review
GERON (SOC WK) 6450, Gerontological Assessment
E. Practica in Gerontology, 6 credits from the following:

GERON 6495, Practicum in Gerontology (required)
GERON 6496, Advanced Practicum in Gerontology or
GERON 6500, Practicum in Gerontological Research
F. Gerontology Electives - 9 credits (once a requirement is met, any course from the listing below can serve as an elective)

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 Graduate 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 \& 6496) must emphasize program administration as part of this plan.
G. Graduate-level statistics course - 3 credits and graduate level research methods course - 3 credits.

Students should consult Director of Gerontology for approved courses.

## 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 conslt with the director of the gerontology program concerning streamlined admission options.


## Distribution Requirements

A. Public Policy-3 credits from the following:

GERON (P P ADM, POL SCI ) 6443, Health Care Policy
GERON(SOCWK/ PPADM/ POL SCI / SOC) 6444, Seminar in Public Policy and Aging
B. Health and Physical Aspects of Aging-3 credits selected from the following:

GERON 6441, Aging and Health Behavior
GERON 6470, Epidemiology of Aging
C. Sociocultural Aspects of Aging-3 credits from the following:

GERON (ANTHRO) 5440, Cultural Aspects of Aging
GERON (SOC) 5361, Advanced Social Gerontology
D. Clinical and Psychosocial Aspects of Aging - 6 credits from the following:

GERON (PSYCH) 5376, Psychopathology and Aging
GERON (SOC WK) 6120, Theory \& Practice with Older Adults
GERON (SOC WK) 6130, Interviewing Older Adults \& Life Review
GERON (SOC WK) 6450, Gerontological Assessment

## E. Elective, 3 credits

GERON 6495, Practicum in Gerontology
or another elective course from the listing below.

## 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 utilizes offerings in the College of Arts and Sciences, College of Nursing, the College of Business, and the College of Education. 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 cross listed and also have a gerontology designation.

## Humanities <br> GERON (PHIL) 2256, Bioethics

Social Sciences
GERON (I NTDSC) 1220, Special Topics in Gerontology
GERON (I NTDSC) 2170, Aging in America Concepts and Controversies
GERON (PSYCH) 2272, Developmental Psychology: Adulthood and Aging
GERON (PSYCH) 2280, Psychology of Death and Dying
GERON (ANTHRO) 3215, Growing Old in Other Cultures
GERON (SOC) 4361, Social Gerontology
GERON (PSYCH/ SOC WK) 4376, Mental Health and Aging
GERON 4490, Directed Readings
GERON (SOC WK) 4680, Introduction to Gerontological Practice
GERON 4700, Successful Aging: Individual \& Societal Perspectives

## 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.

## Course Descriptions

## GERON 1220 Special Topics in Gerontology (1-3)

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 for credit with permission of the Gerontology director.

GERON 2170 Aging in America : Concepts and Controversies (3)
Same as SOC 2170, SOC WK 2670, and INTDSC 2170. This course examines the major theoretical and service
issues connected to the study of older adults and their families, using multidisciplinary perspectives. Students are provided with an introduction to the field of aging through an examination of current social issues and controversies. This course emphasizes student involvement through class discussion, and is appropriate for students in the arts and sciences, business, communication, education, and nursing.

## GERON 2256 Bioethics (3)

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)

Same as PSYCH 2272. Personality, social, and physiological development from the onset of early adulthood through maturity and old age.

## GERON 2280 Psychology of Death and Dying (3) [V,SS]

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)

Same as ANTHRO 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.

## GERON 4361 Social Gerontology (3)

Same as SOC 4361. Prerequisite: 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)

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)
Prerequisite: Consent of instructor. Directed readings and research or field work. May be repeated for a maximum of three hours.

## GERON 4680 Introduction to Gerontological Practice (3)

Same as SOC WK 4680. Prerequisite: 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 inter-disciplinary team approaches, and basic standards of professional conduct that apply across professions.

## GERON 4700 Successful Aging: Individual \& Societal Perspectives (3)

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 5361 Advanced Social Gerontology (3)

Same as SOC 5361. Prerequisite: Graduate Standing. An advanced examination of sociological theories of aging, technological and social change and its effects on the environment of older adults. It includes the study of prejudice and discrimination against the elderly.

GERON 5376 Psychopathology and Aging (3)
Prerequisite: 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 5440 Cultural Aspects of Aging (3)
Same as ANTHRO 5440. 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 5610 Mechanisms of Aging I: The Aging Body (1)
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 sciences/ 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)

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)

Same as SOC WK 5612 and PSYCH 5612. Prerequisites: GERON 5610 and GERON 5611 or SOC WK 5610 and 5611 or PSYCH 5610 and PSYCH 5611 or equivalents 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)

Same as SOC WK 5620. Prerequisites: Six hours of graduate level gerontology, psychology, counseling and/or social work, 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, hospices, 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 \& Practice with Older Adults (3)

Prerequisite: Graduate Standing. Same as SOC WK 6120. 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 \& Life Review (3)

Same as SOC WK 6130. Prerequisite: 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.

## GERON 6441 Aging and Health Behavior (3)

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)

Same as POL SCI 6443, P P ADM 6430, SOC 6443, and SOC WK 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 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)
Same as PP ADM 6444, POL SCI 6444 and SOC 6444. Prerequisite: 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.

GERON 6449 Issues in Retirement (3)

Same as SOC 5449. Prerequisite: Graduate standing. This course examines macro and micro issues of retirement in the United States. It considers experiences of older persons in retirement: 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)

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)

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)

Prerequiste: Graduate Standing. This course reviews the distribution and determinants of health-related conditions and functional concerns in older populations. An emphaisis is placed on key concepts and methodological considerations for conducting epidemiologic 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)
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 6 credit hours.

## GERON 6495 Practicum in Gerontology (3)

Prerequisite: Consent of instructor. 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)

Prerequisites: GERON 6495 and consent of instructor. Advanced practicum experience beyond Gerontology 6495. Students must complete a minimum of 150 clock hours of supervised fieldwork (service or research) with older adults.

## GERON 6497 Interdisciplinary Geriatric Care (2)

Prerequisite: 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)
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 (1-2)

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)

Prerequisites: GERON 6495 and Consent of 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)

Prerequisite: Consent of 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.

## School of Social Work

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## UMSL Home

School of Social Work Home Page

## Faculty

Lois Pierce, Professor, Director
Ph.D., Washington University
Uma Segal, Professor
Ph.D., Washington University
Margaret Sherraden, Professor
Ph.D., Washington University
Norman Flax, Associate Professor Emeritus
Ph.D., Saint Louis University
Joan Hashimi, Associate Professor Emeritus,
Ph.D., Washington University
Sharon Johnson, Associate Professor
Ph.D., Washington University
Thomas Meuser, Associate Professor
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Shirley Porterfield, Associate Professor
Ph.D., University of Wisconsin - Madison
Baorong Guo, Associate Professor
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Patricia Saleeby, Assistant Professor
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Lori Curtis, Associate Teaching Professor
M.S.W., Washington University

Linda Wells-Glover, Associate Teaching Professor
M.S.W., Washington University

Patricia Rosenthal, Associate Clinical Professor
M.S.W., Washington University

Beverly Sporleder, Assistant Clinical Professor
M.S.W., Washington University

## General I nformation

## 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 social work department'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.

## 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 a professional social worker and conduct oneself 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, 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 and SOC WK 4850.

## 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. Admission to the program is conditional upon the successful completion of all necessary requirements.

Requirements for Admission to the Social Work program:
Junior standing
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, 2001, and 2200 or their equivalents or completion of an A.A. in Human Services.
- Satisfactory completion of all courses listed as prerequisites for SOC WK 3100, 3210, and 3510.
- 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, Social Work and Social Issues
SOC WK 2001, Social Work and Social Issues Lab
SOC WK 2200, Social Welfare as a Social Institution
SOC WK 3100, Introduction to Strategies for Social Work Practices
SOC WK 3210, Social Issues and Social Policy Development
SOC WK 3410, Research Design in Social Work (or SOC 3230, PSYCH 2219, or CRIMIN 2210)
SOC WK 3510, Human Behavior in the Social Environment
SOC WK 3700, Diversity and Social Justice

# SOC WK4110, Social Work Practice with Individuals, Families, and Groups <br> SOC WK 4300, Social Work Practice with Communities <br> SOC WK 4350, Social Work Organizations <br> SOC WK 4800, and SOC WK 4850, Supervised Field Experience in Social Work I and II <br> SOC WK 4801 and SOC WK 4851, Integrative Field Experience Seminar I and II 

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:

## Biology

One course from the following:
BIOL 1102, Human Biology
BIOL 1131, Human Physiology and Anatomy I
BIOL 1141, Human Physiology and Anatomy II
BIOL 1202, Environmental Biology
ECON 1000, Introduction to the American Economy or ECON 1005, Family Economics and Household Development
POL SCI 1100, Introduction to American Politics
PSYCH 1003, General Psychology

## Sociology:

SOC 1010, Introduction to Sociology
SOC 2160, Social Psychology
SOC 3220, Sociological Statistics (or PSYCH 2201 or CRIMIN 2220 )
At least 9 additional hours must be taken in social work, sociology, political science, psychology, women's and gender studies, anthropology, criminology and criminal justice, or economics at the 2000 level or above. 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, Social Work and Social Issues
SOC WK 2200, Social Welfare as a Social Institution
SOC WK 3100, Introduction to Strategies in Social Work Practice
SOC WK 3210, Social Issues and Social Policy Development
and one additional social work course at the $\mathbf{3 0 0 0}$ level or above.

## 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


## 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
SOC WK 5200, Social Policy and Social Services
SOC WK 5300, Community Practice and Social Change
SOC WK 5350, Social Work and Human Service Organizations
SOC WK 5410, Research Methods and Analysis I
SOC WK 5450, Research Methods and Analysis II
SOC WK 5500, Foundations of Human Behavior in the Social Environment
SOC WK 5700, Diversity, Social Justice \& Social Work Practice
SOC WK 5800, Graduate Field Practicum I

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

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.

## 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.

## Course Descriptions

SOC WK 2000 Social Work and Social Issues (3)
Prerequisite: 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 helping professions. Introduction to basic values, skills, and training involved in a helping relationship, as well as characteristics of clients seeking help and professional engaged in the helping process.

SOC WK 2001 Social Work and Social Issues Lab (1)
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 Women's and Gender Studies (3)

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)
Prerequisite: SOC WK 2000 or consent of instructor. A study of the: 1) development of social welfare services 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 blacks, aged, women, Hispanics, and Native Americans; and 4) the 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)

Prerequisite: 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)
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.

Same as SOC 2170, INTDSC 2170, and GERON 2170. This course examines the major theoretical and service issues connected to the study of older adults and their families, using multidisciplinary perspectives. Students are provided with an introduction to the field of aging through an examination of current social issues and controversies. This course emphasizes student involvement through class discussion, and is appropriate for students in the arts and sciences, business, communication, education, and nursing.

## SOC WK 3100 Introduction to Strategies for Social Work Practice (3)

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 also will 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)

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)
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)

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, 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 J ustice (3)

Same as GS 3700. Prerequisite: SOC 1010 or equivalent. 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)

Prerequisites: SOC WK 3100, and SOC WK 3510. 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)

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 Social Work Organizations (3)

Prerequisites: Junior standing. 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)
Same as GERON 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 4601 Abused and Neglected Children (3)

Prerequisite: 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 4602 Child Welfare Practicum Seminar (3)

Prerequisites: SOC WK 4800, and consent of instructor. This seminar allows students to integrate previous course work with their experience in child welfare agencies. Classroom discussion will emphasize core competencies needed for child welfare practice.

## SOC WK 4610 Domestic Violence: Theory, Problems \& Practice (3)

Same as GS 4610. Prerequisite: 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. This course 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)
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 addiction and addictive behaviors, including: prevention, assessment, and intervention. It builds on the generalized helping model within 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)

Same as GS 4630. Prerequisite: 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 include work, education, family responsibilities, violence against women, and special health service needs. Emphasis will be placed on understanding how social action can be used to bring about positive change.

SOC WK 4641 Crisis I ntervention (1)
Prerequisite: 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 Nonviolent Crisis I ntervention (1)

Prerequisite: 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)

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)
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 at 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 4655 Health and Mental Health of Racial and Ethnic Minorities (3)
Prerequisites: SOC WK 3700 or equivalent and graduate standing or approval of the instructor. This course explores the major health and mental health conditions that adversely affect the well-being and social functioning of racial and ethnic minorities. The course will explore the assessment of health and mental health conditions among varying minority groups, the availability of services to treat these conditions, the accessibility of services, and the quality of care provided to these groups. Traditional barriers to care will be explored including cost of care, societal stigma, client fears, and language differences. The course will also help students develop culturally competent approaches to working with racial and ethnic minorities that are individualized to a target population.

## SOC WK 4670 Cross Cultural Perspectives on Social Policy (3)

Prerequisite: 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 I ntroduction to Gerontological Practice (3)

Same as GERON 4680. Prerequisite: 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 healthrelated theories of aging, functional and psychosocial aspects of aging, working with older adults in various service settings, multi and inter-disciplinary team approaches, and basic standards of professional conduct that apply across professions.

SOC WK 4800 Supervised Field Experience in Social Work I (4)
Prerequisites: SOC WK 4110 must be taken prior to or concurrently, SOC WK 4801 must be taken concurrently, 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)
Prerequisites: 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)
Prerequisites: 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 may continue at the same agency as SOC WK 4801, or change agencies with the consent of the instructor.

SOC WK 4851 Integrative Field Experience Seminar II (2)
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)
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 4911 Staff Management I ssues in Nonprofit Organizations (1)

Same as POL SCI 4911 and P P ADM 4911. Prerequisite: Junior Standing. 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 4912 Legal Issues in Managing Nonprofit Organizations (1)

Same as POL SCI 4912 and P P ADM 4912. Prerequisite: J unior Standing. 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 4913 Financial Issues in Managing Nonprofit Organizations (1)
Same as POL SCI 4913 and P P ADM 4913. Prerequisite: Junior Standing. 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 4940 Leadership and Management in Nonprofit Organizations (3)

Same as P P ADM 4940, POL SCI 4940, SOC 4940. Prerequisite: Junior standing. 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 4950 Seminar in Social Work I ssues (1-3)

Prerequisite: Consent of instructor. A variable-credit course examining current and future considerations in designing and implementing social work service and delivery arrangements. Issues will be selected according to interests of the class. Course may be taken more than once for credit as different topics are offered.

SOC WK 4960 American Philanthropy and Nonprofit Resources Development (3)
Same as POL SCI 4960 and P P ADM 4960. Prerequisite: Junior standing or consent of instructor. 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 5100 Generalist Social Work Practice (3)

Prerequisite: SOC WK 4110 or equivalent or admission to the 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 short-term intervention, contracting, resource development, and case documentation needed for competent direct practice with diverse populations.

SOC WK 5200 Social Policy and Social Services (3)
Prerequisite: 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)
Prerequisite: SOC WK 4300 or SOC 4344 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)

Prerequisites: SOC WK 3510 and 4300 or PSYCH 3318 or 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)
Prerequisites: SOC WK 3410 or SOC 3230 and 3231 or equivalent and SOC 3220 or equivalent or admission to the 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)
Prerequisite: SOC WK 5410 or equivalent. Advanced course, focusing on analysis of qualitative and quantitative data to advance 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)

Same as GS 5500. Prerequisite: 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.

## SOC WK 5610 Mechanisms of Aging I: The Aging Body (1)

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 sciences/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)
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)
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)

Same as GERON 5620. Prerequisites: 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, strategies for supportive intervention. Topics are addressed from clinical, supportive care, and interdisciplinary perspectives.

## SOC WK 5700 Diversity, Social J ustice \& Social Work Practice (3)

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)
Prerequisites: Graduate standing and consent of instructor. Provides integrative field experience in generalist social work practice. May be taken for 2 or 4 credit hours 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)

Prerequisites: 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 practice.

## SOC WK 6100 Theory and Practice with Children and Youth (3)

Prerequisites: SOC WK 5100 or equivalent or consent of instructor and graduate standing. Examines theory and empirically-based assessment and intervention models for work with children and adolescents. The effects of family, peers, and societal context (e.g., poverty, racism) will be stressed in understanding youth problems such as drug abuse, academic failure, delinquency, adolescent pregnancy, and gang participation. The course will emphasize a multi-disciplinary approach using inter-agency collaboration and negotiation skills.

## SOC WK 6120 Theory and Practice with Older Adults (3)

Prerequisite: Graduate Standing. Same as GERON 6120. 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 I nterviewing Older Adults \& Life Review (3)

Same as GERON 6130. Prerequisite: 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)

Prerequisites: SOC WK 5100 or equivalent, graduate standing and departmental approval. Examines theoretical approaches to social work with families, including the impact of the social environment. Skills will include assessment, and multidisciplinary 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)

Prerequisite: 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)

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, focus, including topics such as economic support, health national, and state policies that affect basic family needs will be the 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)

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)

Same as P P ADM 6300. Prerequisite: 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 and evaluation.

## SOC WK 6310 Advanced Philanthropy and Nonprofit Resources Development (3)

Same as P P ADM 6310. Prerequisite: 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 fund raising process, form planning through donor relations.

## SOC WK 6311 Staff Management Issues in Nonprofit Organizations (1)

Same as P P ADM 6311. Prerequisite: 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)

Same as P P ADM 6312. Prerequisite: 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)

Same as P P ADM 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.

## SOC WK 6400 Practice and Program Evaluation (3)

Prerequisites: SOC WK 5410 and 5450 or equivalent or consent of instructor and graduate standing. 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)

Same as POL SCI 6443, GERON 6443 and P P ADM 6430. Prerequisite: Graduate standing or 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 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)
Same as POL SCI 6449 and P P ADM 6490. Prerequisite: 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.
SOC WK 6491 Strategic and Program Planning for Nonprofit Organizations (3)
Same as POL SCI 6490 and P P ADM 6550. 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.

SOC WK 6601 Evidence Based Approaches in Direct Social Work Practice: Cognitive Behavioral and Rational Emotive Behavioral Therapy Models (1)
Prerequisites: SOC WK 5100 and 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 roleplays 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 Evidence Based Approaches in Direct Social Work Practice: Solution Focused Therapy Model (1)

Prerequisites: SW5100 and 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 Evidence Based Approaches in Direct Social Work Practice: Play and Interactive Therapy Models (1)

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. The 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 I nterviewing (1)

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 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)

Prerequisites: SOC WK 5100 or equivalent or consent of instructor. Designed for social work students, course will provide overview of development and treatment of selected mental health disorders classified by the Diagnostic and Statistical Manual of Mental Disorders. In particular, course will examine, from a systems perspective, 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)
Prerequisites: SOC WK 5100 or equivalent or graduate standing and consent of instructor. Examines role of 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 6800 Graduate Field Practicum II (2-6)
Prerequisites: SOC WK 5801 and SOC WK 5800. Provides integrative field experience in students' 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)
Prerequisite: SOC WK 6800. Provides advanced integrative field experience in students' 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 6800.

## SOC WK 6900 Directed Study in Professional Social Work (1-10)

Prerequisites: 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.

# UMSL/Washington University J oint Undergraduate Engineering Program 

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## Administration

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Bernard J. Feldman, Associate Dean
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Mary McManus, Assistant Director of Student Services
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M.S., University of Missouri-Rolla

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M.S., Washington University

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M.S., Virginia Tech

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Albert Black, Adjunct Instructor
Ph.D., University of Minnesota
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M.S. Fontbonne University

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Karl Spuhl, Adjunct Instructor
M.S., St. Louis University

Frank Wilson, Adjunct Instructor
M.S., Washington University

Michael C. WendI, Adjunct Instructor
Ph.D., Washington University

## 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 afternoon, 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 welltrained, 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 J oint 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:

1. Meet the needs of employers of civil, mechanical, and electrical engineers, with an emphasis on the St. Louis region.
2. 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:

1. An ability to apply knowledge of mathematics, science and engineering
2. An ability to design and conduct experiments, as well as to analyze and interpret data
3. 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
4. An ability to function on multidisciplinary teams
5. An ability to identify, formulate, and solve engineering problems
6. An understanding of professional and ethical responsibility
7. An ability to communicate effectively
8. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
9. A recognition of the need for, and an ability to engage in, life-long learning
10. A knowledge of contemporary issues
11. 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

Admission to candidacy for these degrees is granted jointly by the University of Missouri-St. Louis and Washington University.

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.

## Degree Requirements

## Bachelor of Science in Civil Engineering <br> Bachelor of Science in Electrical Engineering <br> 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 127 semester hours is required for the Bachelor of Science in Electrical Engineering, and a program of 139 semester hours is required for the Bachelor of Science in Mechanical Engineering, as shown below:

All majors must complete the University General Education requirements, 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/Calculus I
MATH 1900, Analytic Geometry/Calculus II
MATH 2000, Analytic Geometry/Calculus III
MATH 2020, Differential Equations
CHEM 1111, Introductory Chemistry I
PHYSICS 2111, Physics: Mechanics and Heat
PHYSICS 2112, Physics: Electricity, Magnetism and Optics
ENGR 2310, Statics
ENGR 2320, Dynamics
ENGL 1100, First Year Writing
Mechanical and Electrical Engineering majors must also complete CHEM 1121, Introductory Chemistry II as part of the pre-engineering requirements. Civil engineering majors must complete GEOL 1001A, General
Geology as part of the pre-engineering requirements.

## Humanities and Social Sciences Electives

The student's choice of humanities and social sciences electives must meet both the UMSL General Education Requirements and the Humanities and Social Sciences Requirements of the Joint Undergraduate Engineering Program. Check with your adviser for details. In particular:

- Three courses in the humanities and 3 courses in social sciences must be taken
- One of the social sciences must be a course in American history or government or in Missouri history or government
- One of the humanities or social science courses must be at the junior level or above
- The cultural diversity requirement must be fulfilled.
- Some courses that fulfill the humanities [H] or social sciences [SS] breath of study requirement do not count as Humanities and Social Sciences Electives; an example would be a statistics course taught in economics or psychology. See the Office of the Joint Undergraduate Engineering Program for a listing of courses that do not count as Humanities or Social Sciences Electives in this program, or check with your advisor.


## Engineering Core Requirements

J CMP SC 1002, Introduction to Computing Skills: MATLAB kills
CMP SCI 1250, Introduction to Computing
J E MATH 3170, Engineering Mathematics
ENGL 3130, Technical Writing
J M ENGR 3200, Thermodynamics*
J M ENGR 4310/ J E ENGR 4410, Control Systems I*
J E ENGR 2300, Introduction to Electrical Networks*
J E ENGR 2330, Electrical and Electronic Circuits Laboratory *
*Required for electrical and mechanical engineering majors only.

## Civil Engineering Major Requirements

J C ENGR 2160, Surveying
J C ENGR 3410, Structural Analysis
J C ENGR 3420,Structural Design
J C ENGR 3520, Water and Wastewater treatment
J C ENGR 3360, Civil Engineering Materials Lab
J C ENGR 3760, Open Channel Hydraulics
J C ENGR 4190, Soil Mechanics
J C ENGR 4200, Soil Exploration and Testing

J C ENGR 4740, Economic Decisions in Engineering
J C ENGR 4760, Site Planning and Engineering OR
J C ENGR 4670, Structural Design Projects OR
J C ENGR 4820, Design of Water Quality Control Facilities
J C ENGR 4840, Probabilistic Methods in Civil Engineering Design
JC ENGR, 4950,Fundamentals of Engineering Review
J C ENGR 4990, Senior Civil Engineering Seminar
J M ENGR 1413, Introduction to Engineering Design: CAD
J M ENGR 2410, Mechanics of Deformable Bodies
J M ENGR 3360, Material Science
J M ENGR 3700, Fluid Mechanics
J M ENGR 3721,Fluid Mechanics Laboratory

## Civil Engineering Electives

J M ENGR 3200, Thermodynamics OR
J E ENGR 2300, Introduction to Electrical Networks
J C ENGR 3460, Transportation Engineering
J C ENGR 4600, Transportation Planning
J C ENGR 4640, Foundation Engineering
Electrical Engineering Major Requirements
J E MATH 3260, Probability and Statistics for Engineering
J E ENGR 2320, Introduction to Electronic Circuits
J E ENGR 2600, Introduction to Digital Logic and Computer Design
J E ENGR 3300, Engineering Electromagnetic Principles
J E ENGR 3320, Power, Energy, and Polyphase Circuits
J E ENGR 3510, Signals and Systems
J E ENGR 4350, Electrical Energy Laboratory
J E ENGR 4650, Digital Systems Laboratory
J E ENGR 4980, Electrical Engineering Design Projects
Electrical Engineering Electives 3000-4990
Mechanical Engineering Major Requirements
J C ENGR 4950, Fundamentals of Engineering
J E MATH 3260, Probability and Statistics for Engineering
J M ENGR 1413, Introduction to Engineering Design: CAD
J M ENGR 1414, Introduction to Engineering Design: Project
J M ENGR 2410, Mechanics of Deformable Bodies
J M ENGR 3221, Mechanical Design and Machine Elements
J M ENGR 3250, Materials Science
J M ENGR 3700, Fluid Mechanics
J M ENGR 3710, Principles of Heat Transfer
J M ENGR 3721, Fluid Mechanics Laboratory
J M ENGR 3722, Heat Transfer Laboratory
J M ENGR 4041, Current Topics in Mechanical Engineering Design Mechanical Engineering Electives
J M ENGR 4120, Design of Thermal Systems
J M ENGR 4170, Dynamic Response of Physical Systems
J M ENGR 4180, Dynamic Response Laboratory
J M ENGR 4110, Mechanical Engineering Design Project
Mechanical Engineering Electives

## 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.

## Fees

Students register on the UMSL campus and pay UMSL fees plus an engineering fee for both pre-engineering and 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 I nformation

For information about enrolling in this program, please contact the UMSL/Washington University Joint Undergraduate Engineering Program at 314-516-6800.

## Student Conduct Expectations

## UMSL Home

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 Affair (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

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.
A. 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.
B. Conduct for which students are subject to sanctions falls into the following categories:

1. 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.
a. 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.
b. 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.
c. 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.
2. Forgery, alteration, or misuse of University documents, records or identification, or knowingly furnishing false information to the University.
3. Obstruction or disruption of teaching, research, administration, conduct proceedings, or other University activities, including its public service functions on or off campus.
4. Physical abuse, threats of violence, or other conduct which threatens or endangers the health or safety of any person.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. Unauthorized possession, duplication or use of keys to any University facilities or unauthorized entry to or use of University facilities.
11. 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.
12. 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.
13. Disruptive or disorderly conduct or lewd, indecent, or obscene conduct or expression.
14. Failure to comply with directions of University officials acting in the performance of their duties.
15. The illegal or unauthorized possession or use of firearms, explosives, other weapons, or hazardous chemicals.
16. Misuse in accordance with University policy of computing resources, including but not limited to: a. Actual or attempted theft or other abuse.
b. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
c. Unauthorized transfer of a file.
d. Unauthorized use of another individual's identification and password.
e. Use of computing facilities to interfere with the work of another student, faculty member, or University official.
f. Use of computing facilities to interfere with normal operation of the University computing system.
g. Knowingly causing a computer virus to become installed in a computer system or file.

## Student Disciplinary Matters

200.020 RULES OF PROCEDURES I N STUDENT CONDUCT MATTERS

Bd. Min. 11-8-68, Amended Bd. Min. 3-20-81; Bd. Min. 12-8-89, Amended 5-19-94; Bd. Min. 5-24-
A. 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.
B. Definitions. As used in these rules, the following definitions shall apply:

1. 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.
2. 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.
3. 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.
4. 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.

## C. Sanctions.

1. 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:
a. Warning. A notice in writing to the student that the student is violating or has violated institutional regulations.
b. 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.
c. Loss of Privileges. Denial of specified privileges for a designated period of time.
d. 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.
e. Discretionary Sanctions. Work assignments, service to the University, or other related discretionary assignments.
f. 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.
g. Residence Hall Expulsion. Permanent separation of the student from the residence halls.
h. 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.
i. 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.
j. University Expulsion. Permanent separation of the student from the University.
2. 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.
D. Records Retention. Student conduct records shall be maintained for five years after University action is completed.

## E. Policy and Procedures.

1. 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.
2. 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.

## 3. Formal Procedure and Disposition.

 a. 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 seventytwo (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.
b. 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).
c. 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.
4. Right to Petition for Review: (other than University expulsion, University dismissal, or University suspension).
a. 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.
b. 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.
5. Right of Appeal (University expulsion, University dismissal, or University suspension only).
a. 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.
b. 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.
6. 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.
7. 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.

## F. Hearing Procedures.

1. 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.
a. 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.

## b. 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.

## c. 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.
d. 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.
e. 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).
f. 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.
2. 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:
a. Be present at the hearing;
b. Have an adviser or counselor and to consult with such adviser or counselor during the hearing;
c. Hear or examine evidence presented to the Committee;
d. Question witnesses present and testifying;
e. Present evidence by witnesses or affidavit;
f. Make any statement to the Committee in mitigation or explanation of the conduct in question;
g. Be informed in writing of the findings of the Committee and any sanctions it imposes; and
h. Request review or appeal to the Chancellor as herein provided.
3. 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:
a. As to the conduct of the student, and
b. 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.
4. 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.
5. 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.
6. General Rules of Decorum. The following general rules of decorum shall be adhered to:
a. All requests to address the Committee shall be addressed to the Chair.
b. 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.
c. Rules of common courtesy and decency shall be observed at all times.
d. 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.
7. 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.
8. Crimes of Violence and Non-Forcible Sex Offences. In cases of alleged crimes of violence and non-forcible sex offences:
a. The alleged victim is entitled to have an adviser or counselor present during his or her participation in the hearing.
b. 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:
A. 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.);
B. 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 PROGRAM

### 330.060 SEXUAL HARASSMENT

### 240.040 POLI CY RELATED TO STUDENTS WITH DISABILITIES

### 330.070 AFFI RMATI VE ACTI ON ON COMMI TTEE APPOI NTMENTS

Should a student feel that the campus has not followed these policies, they have access to the University of Missouri Discrimination Grievance Procedure for Students.

Students may contact the Student Advocate in Academic Affairs to lodge complaints or seek information about these procedures.

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[^0]:    1) Marketing Management

    MKTG 3700, Basic Marketing

[^1]:    * Each semester the Director of the Gender Studies identifies courses being offered by other departments; they are cross listed with Gender Studies courses under the special topic course title. Consult the course schedule each semester for a list of these courses.

[^2]:    Early Childhood Education
    Elementary Education
    Physical Education

