## EASTERN MICHIGAN UNIVERSITY

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The Higher Learning Commission of The North Central Association of Colleges and Schools

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The University graduate bulletin covers a 24-month period, September 1 through August 31, 2005-2007. Courses, programs, degrees and certificates in this catalog are subject to change without notice and may not be available in the future.

Every effort has been made to include in this publication information that, at the time of preparation for printing, is accurate. However, the contents of this publication are not to be regarded as an irrevocable contract between students and Eastern Michigan University. The University reserves the right to change at any time and without prior notice any provision or requirement included, but not limited to policies, procedures, changes and academic programs. It is the responsibility of the student to meet and satisfy all University, college and program requirements.

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## Academic Year

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## 2005-2006 University Calendar

Fall Semester 2005


## Winter Semester 2006

| January 8, Sun. ........................... Move-In Day and Winter Orientation |  |
| :---: | :---: |
| January 9, Mon. | ..... Classes Begin |
| nuary 16 M | MLK Jr. Day |
| February 27-March 5, Mon.-Sun. | (No Classes; Campus Open) |
|  | Winter Recess |
|  | (No Classes; Campus Open) |
| arch | Classes Resume |

April 14-16, Fri.-Sun............................................................Spring Recess

April 24, Mon.............................................................Last Day of Classes
April 25-May 1, Tues.-Mon. .....................................Final Examinations
April 30, Sun. ................................................................................ (Colleges of Arts and Sciences and Technology: 10:30 a.m., Colleges of Business, Education, and Health and Human Services: 2 p.m.)
May 2, Tues.
. Close of Winter Semester
Spring Session 2006

| May 7, Sun. ...............................................................Move-In Day |  |
| :---: | :---: |
| May 8, Mon | Classes Begin |
|  |  |
|  | (University Closed) |
| June 19, Mon | Last Day of 6-Week Classes |
| June 28, Wed. ........................................Last Day of 71/2-Week Classes |  |
| June 28, Wed. ................................................Close of Spring Session |  |


| Summer Session 2006 |  |
| :---: | :---: |
| 2, Sun. ................................................................Move-In Day |  |
| July 3, Mon. | Classes Begin |
| July 4, Tues. | .Independence Day |
| August 14, Mon. | Last Day of 6-Weers Classes |
| August 23, Wed. | Last Day of 71/2-Week Classes |
| August 23, | ....Close of Summer Session |

## 2006-2007 University Calendar



## Eastern Michigan University Mission

Eastern Michigan University is committed to excellence in teaching, the extension of knowledge through basic and applied research, and creative and artistic expression. Building on a proud tradition of national leadership in the preparation of teachers, we maximize educational opportunities and personal and professional growth for students from diverse backgrounds through an array of baccalaureate, master's and doctoral programs. We provide a student-focused learning environment that positively affects the lives of students and the community. We extend our commitment beyond the campus boundaries to the wider community through service initiatives and partnerships of mutual interest addressing local, regional, national and international opportunities and challenges.

## Institutional Values

- Teaching and learning
- Excellence
- Human dignity and respect
- Diversity
- Scholarship and intellectual freedom
- Public engagement
- Leadership and participatory decision-making
- Integrity


## Guiding Principles

- Accessibility
- Relevancy
- Responsiveness to change
- Flexibility
- Quality
- Collaboration
- Accountability
- Affordability


## University Profile and History

Eastern Michigan University is a multipurpose University whose roots date back to 1849, when the Michigan Legislature designated it as Michigan's first institution to educate teachers to serve the public schools. At that time the Detroit school system was only 10 years old and the transition from one-room school houses had just begun.

Graduate education was inaugurated in 1938, when the programs were conducted in cooperation with the University of Michigan. In 1953 Eastern gained approval to offer its own graduate programs.

During its first 100 years, Michigan State Normal School, as it was originally called, certified thousands of teachers and developed the broad-based academic curricula that prepared it for its evolution to university status in 1959. Within the new university, three colleges emerged: the College of Education, the College of Arts and Sciences, and the Graduate School. The University has expanded three more times: in 1964 with the College of Business; in 1975 with the College of Health and Human Services; and in 1980 with the College of Technology.

New colleges created a need for additional acreage. The University campus spread from its original 275 acres on the south side of the Huron River to encompass an additional 182 acres west of the campus where student residences, athletic facilities and the Convocation Center are located. Among the newest buildings are the Porter College of Education building (1999); the Marshall College of Health and Human Services building (2000); and the University House (2004).

Today's student body reflects the national trend of mature adults returning to college to continue their education and prepare for new careers in a changing society. Women compose approximately 65 percent of the student body. Most students are from the state of Michigan, but 45 states and 93 countries are also represented. In fall 2003, 24,419 undergraduate and graduate students were enrolled at Eastern Michigan University.

EMU's perspective has also grown, not only in on-campus program development, but also in online courses offered through the Office of Extended Programs.

Eastern Michigan University is known worldwide for its educational contributions. Its 105,000 living graduates are scattered among many countries as well as coast-to-coast in the United States, both strengthening and supporting the foundation that is the multipurpose University in Ypsilanti, Michigan.

## Accreditations of Colleges and Departments

The University is fully accredited by the Higher Learning Commission, a subcommittee of the North Central Association of Colleges and Schools. In 2001 the University received an unqualified accreditation for a period of 10 years.

Eastern Michigan University also retains membership in these organizations: American Association of Colleges for Teacher Education; American Music Therapy Association; Association of Baccalaureate Social Work Program Directors; Council on Hotel, Restaurant and Institutional Education; International Facility Management Association; Michigan Coalition of Schools/Departments offering the MSW; Michigan Historic Preservation Network; National Association of Deans and Directors of Schools of Social Work; National Council for Preservation Education; National Trust for Historic Preservation; and The Pioneer America Society.

## Colleges and Departments

College of Arts and Sciences
Department of African American Studies
Department of Art
Department of Biology
Department of Chemistry (accredited by the American Chemical Society)
Department of Communication and Theatre Arts
Department of Computer Science
Department of Economics
Department of English Language and Literature
Department of Foreign Languages and Bilingual Studies
Department of Geography and Geology (bistoric preservation accredited by the National Council for Preservation Education, urban and regional planning accredited by the Association of Collegiate Schools of Planning and by the Planning Accreditation Board, historic preservation affliated with the Association for Preservation Technology, Michigan Historic Preservation Network, Pioneer America Society, Vernacular Architecture Forum and the National Trust for Historic Preservation)
Department of History and Philosophy
Department of Mathematics
Department of Music and Dance (accredited by the National Association of Schools of Music and the American Music Therapy Association)
Department of Physics and Astronomy
Department of Political Science (public administration accredited by the National Association of Schools of Public Affairs and Administration)
Department of Psychology (accredited by the Association for Behavior Analysis, American Psychological Association and Council of Applied Master's Programs in Psychology)
Department of Sociology, Anthropology and Criminology
Women's Studies Program

## College of Business

(accredited by the Association to Advance Collegiate Schools of Business)
Department of Accounting and Finance
Department of Computer Information Systems
Department of Management
Department of Marketing

## College of Education

(All professional educator preparation programs of EMU are accredited by the National Council for the Accreditation of Teacher Education and approved by the Michigan Department of Education.)
Department of Leadership and Counseling (Community, college and school counseling programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs.)
Department of Special Education (Speech-language pathology program accredited by the American Speech-Hearing Association; hearing impaired program accredited by the Council on Education for the Deaf.)
Department of Teacher Education (accredited by the National Council for the Accreditation of Teacher Education)

College of Health and Human Services
School of Health Promotion and Human Performance (athletic training accredited by the Commission on Accreditation of Allied Health Education Programs and the Joint Review Committee on Education Planning and Athletic Training; health education accredited by the Michigan Department of Education/National Council for the Accreditation of Teacher Education; orthotics and prosthetics is accredited by the National Commission on Orthotics and Prosthetics Education; physical education is accredited by the National Association of Sport and Physical Education/National Council for the Accreditation of Teacher Education)
School of Health Sciences (clinical laboratory sciences program accredited by the National Accreditation Agency for Clinical Laboratory Sciences; occupational therapy accredited by the Accreditation Council for Occupational Therapy Education; dietetics accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association)
School of Nursing (accredited by the Commission on Collegiate Nursing Education)
School of Social Work (accredited by the Council on Social Work Education)

College of Technology
School of Engineering Technology (Construction Management accredited by the American Council for Construction Education; Computer-Aided Design, Manufacturing Technology and Polymers and Coatings technology accredited by the National Association of Industrial Technology; Interior Design accredited by the Foundation for Interior Design Education and Research.)
School of Technology Studies (Aviation Management, Communication Technology and Industrial Distribution accredited by the National Association of Industrial Technology; Hospitality Management program accredited by the Council on Hotel, Restaurant and Institutional Education; Legal Assistant (Paralegal Studies) program accredited by the American Bar Association; Network and Information Technology Administration, Marketing Education, Technology Education - folio approved by the National Council for Accreditation of Teacher Education/International Technology Educational Association/Council on Technology Teacher Education.)
Military Science and Leadership

# The Graduate School 

## Organization

The Graduate School administers graduate education at Eastern Michigan University. The Associate Vice President for Graduate Studies and Research provides leadership in the development of graduate education and oversees adherence to Graduate School policies and procedures.

The Graduate School reserves the right to modify curricula, course content, admission standards, degree requirements and/or tuition and fees without advance notice. The information in this catalog is not a binding contract between the Graduate School and the student.

A Graduate Council, composed of faculty, administrators and students, recommends policy and plans for the development of graduate education. A membership roster is available from the Graduate School.

## Objectives

The Graduate School seeks to expand and improve the professional competence of its students by preparing them for more advanced academic work, providing expertise in research techniques in their chosen disciplines, and offering learning opportunities in convenient locations and individualized modes.

Faculty throughout the University are committed to meeting the learning needs of graduate students in a variety of programs and settings. Within the formal programs in the various academic disciplines, there is sufficient flexibility to accommodate the professional goals of each student.

## Degree and Certificates Offered

## Doctoral Degrees

College of Arts and Sciences
Department of Psychology
Clinical Psychology (Ph.D.)
College of Education
Department of Leadership and Counseling
Educational Leadership (Ed.D.)
College of Technology
Technology (Ph.D)

## Specialist's Degrees

College of Education
Department of Leadership and Counseling
Educational Leadership
Department of Special Education Special Education

## Master's Degrees

Graduate School
Individualized Studies
College of Arts and Sciences
Department of Art
Art Education
Fine Art (M.F.A.)
Studio Art
Department of Biology
Bioinformatics
Biology
Biology - General
Ecosystem Biology
Molecular/Cellular Biology

## Department of Chemistry

Chemistry
Department of Communication and Theatre Arts
Communication
Interpretation/Performance Studies
Theatre Arts
Arts Administration
Drama/Theatre for the Young (M.A., M.F.A.)
Department of Computer Science
Bioinformatics
Computer Science
Double M.A. Program with Fachhochschule, Karlsruhe, Germany
Department of Economics
Applied Economics
Economics
Health Economics
International Economics and Development
Trade and Development
Department of English Language and Literature
Children's Literature
Creative Writing
English Linguistics
Literature
Written Communication
Department of Foreign Languages and Bilingual Studies
Foreign Language - French
Foreign Language - German
Foreign Language - Spanish
Language and International Trade
Spanish Bilingual-Bicultural Education
Teaching of English to Speakers of Other Languages (TESOL)
Department of Geography and Geology
Geographic Information Systems
Urban and Regional Planning
Historic Preservation - General Studies
Historic Preservation - Conservation and Technology
Historic Preservation - Heritage Interpretation, Tourism and Administraion
Historic Preservation - Preservation Planning
Department of History and Philosophy
History
Liberal Studies in Social Science and American Culture
Local History Program
Social Science
Department of Mathematics
Mathematics
Statistics
Computer Science
Mathematics Education
Bioinformatics
Department of Music and Dance
Music Education
Music
Department of Physics and Astronomy
General Science
Physics Physics Education
Department of Political Science
Public Administration (M.P.A.)
Department of Psychology
Clinical Behavioral Psychology
General Clinical Psychology General Experimental Psychology
Department of Sociology, Anthropology and Criminology Criminology and Criminal Justice
Sociology Applied Research Specialty Family Specialty
Schools, Society and Violence

Women's Studies Program
Liberal Studies in Women's Studies
College of Business
Business Administration (General) (MBA)
Computer Information Systems
E-Business
Entrepreneurship
Finance
International Business
Human Resource Management
Non-Profit Management
Supply Chain Management
Department of Accounting and Finance
Accounting (M.S.A.)
Accounting (B.A. - M.S.A.)
Department of Computer Information Systems
Computer Information Systems (M.S.I.S.)
Department of Management
Bioinformatics
Human Resources Management and Organizational Development (M.S.-HR/OD)

College of Education
Department of Leadership and Counseling
Educational Leadership
K-12 Administration
Higher Education/General Administration
Higher Education/Student Affairs
College Counseling
Community Counseling
School Counseling
Department of Special Education
General Special Education
Learning Disabilities
Speech-Language Pathology
Endorsements
Cognitive Impairment
Emotional Impairment
Hearing Impairment
Physical Impairment and Other Health Impairment
Visual Impairment
Department of Teacher Education
Common Learnings in Curriculum
Curriculum and Instruction
Elementary Education
Middle Level Education
Secondary Education
Early Childhood Education
Educational Media and Technology
Educational Psychology
Development and Personality
Research and Evaluation
Reading
Schools, Society and Violence
Social Foundations
College of Health and Human Services
School of Health Sciences
Combined Bachelors/Master's Degree in Occupational Therapy
Clinical Research Administration
Human Nutrition
Human Nutrition-Coordinated Program in Dietetics
Occupational Therapy (M.O.T., M.S.)
Physical Education Sports Medicine
Adult/Corporate Fitness
Biomechanics
School of Health Promotion and Human Performance
Health Education
Physical Education
Interdisciplinary Adapted Physical Education

Pedagogy
Sports Management
Sports Medicine
Exercise Physiology
School of Nursing
Nursing (M.S.N.)
School of Social Work
Social Work (M.S.W.)
Family and Children's Services
Mental Health and Chemical Dependency
Services to the Aging
College of Technology
School of Engineering Technology
Construction Management
CAE
Engineering Management
Interior Design
Polymers and Coatings Technology
Quality
School of Technology Studies
Apparel, Textiles and Merchandising
Career, Technical and Workforce Education
Hotel and Restaurant Management
Liberal Studies in Interdisciplinary Technology
Master of Business Education

## Advanced Graduate Certificates

College of Arts and Sciences
Department of History
State and Local History

## College of Education

Department of Leadership and Counseling
Post-Master's Certificate Program for School Counselor Licensure

## College of Health and Human Services

School of Nursing
Post-Master's Adult Nurse Practitioner
College of Technology
School of Engineering Technology
Quality

## Graduate Certificates

College of Arts and Sciences
Department of Biology
Bioinformatics
Water Resources
Department of Computer Science
Artificial Intelligence
Bioinformatics
Secondary Teacher Endorsement
Department of Economics
Public Budget Management
Public Personnel Management
Public Policy Analysis
Department of English Language and Literature
Teaching of Writing
Technical Communication
Department of Foreign Languages and Bilingual Studies
Bilingual Endorsement Program for Certified Teachers
Hispanic Language and Cultures
Japanese Language Teaching
German for Business Practices
Teaching English as a Second Language
Department of Geography and Geology
Geographic Information Systems (GIS) for Educators
Geographic Information Systems (GIS) for Professionals
Historic Preservation

Public Land Planning and Development Management
Water Resources
Department of History
State and Local History
Department of Mathematics Bioinformatics
Department of Political Science
Community Building
General Public Management
Local Government Management
Management of Public Healthcare Services
Nonprofit Management
Public Budget Management
Public Land Planning and Development Management
Public Personnel Management
Public Policy Analysis
Department of Sociology, Anthropology, and Criminology
Community Building
College of Business
Business Administration
Accounting - Taxation
Accounting - Financial and Operational Control
Computer Information Systems
E-Business
Entrepreneurship
Finance
Human Resource Management
Organizational Development
Marketing Management
Supply Chain Management
Department of Accounting and Finance
Community Building
Nonprofit Management
Public Budget Management
Department of Management
Bioinformatics
Community Building
Nonprofit Management
Public Personnel Management
Department of Marketing
Community Building
Nonprofit Management
College of Education
Department of Leadership and Counseling
Community College Leadership
Helping Interventions in a Multicultural Society
Department of Teacher Education
Educational Media and Technology
College of Health and Human Services
School of Health Promotion and Human Performance
Orthotics or Prosthetics
Provisional Certification in Physical Education
School of Health Sciences
Clinical Research Administration
Health Administration
Public Budget Management
School of Nursing
Teaching in Health Care Systems
School of Social Work
Community Building
Gerontology
Gerontology - Specializing in Dementia
Nonprofit Management
College of Technology
School of Engineering Technology
Quality
School of Technology Studies Information Security

## The Graduate Experience

## Message from the Graduate School Associate Vice President

The years I spent in graduate school were deeply satisfying to me because I was able to spend all of my time studying a subject I loved and perfecting skills that were already well advanced. I had plenty of time to read good books, and time left over to socialize with my instructors, some of whom were towering figures in my field. Even more valuable were my interactions with fellow graduate students who shared my devotion to our discipline. And I liked being trusted to conduct research that was no longer merely a recapitulation of what was known, but a sally into the unknown. Soon I was not merely patrolling the frontiers of knowledge, but actually extending them; gradually I came to think of my instructors (and they of me, I think) as professional colleagues.

Not everyone is able to enjoy the luxury of full-time graduate study. For many students nowadays, graduate study must be shoe-horned into a space already crowded by full-time employment and family responsibilities. Yet many part-time graduate students testify that their graduate work is precious to them - an island of calm in a turbulent sea.

The purpose of graduate school is mastery - taking possession of a defined area of knowledge that is comfortably occupied by only a few. A happy result of such mastery is a better job and more money, but they are not its purpose. Breadth of knowledge is, of course, critically important to the scholar, but so is depth. Great scholars are tethered to a solid grounding in the liberal arts; students who avoid or forsake the discipline of research soon become dilettantes.

Graduate students, like rock climbers, are those courageous few who are willing to strike out into terra incognita, feeling their way upward, learning to distinguish crumbling shale from solid granite, pursuing a singleminded purpose: to breathe the rarefied air at the summit.

But smart climbers never climb alone and the best scholars don't live in an ivory tower. At its best, graduate school is a sociable place - a community of scholars. In graduate school, students are gradually introduced by faculty to the scholarly standards, research protocols, ethical norms, professional expectations, social history, and current leaders of their discipline. Seminars, speaker programs, shared authorship and conference presentations, and social events are just some of the ways in which this socialization can occur.

The Graduate School staff is also part of your network. We stand ready to help you throughout your journey - on belay, as it were - and wish you well as you climb higher toward the summit, toward mastery.

Sincerely,
Bor Hectetion

Robert Holkeboer
Associate Vice President

## Admission

## General Procedures

Complete and submit to the Office of Admissions all required documents and materials. Official transcripts sent to EMU directly from the institution are required for all institutions (graduate and undergraduate) attended. The following priority deadlines have been established for receipt of all application materials required for admission to a graduate program:

| Semester/Session | Domestic Students | International Students |
| :--- | :--- | :--- |
| Fall | Feb. 15 | Feb. 15 |
| Winter | Oct. 15 | Oct. 15 |
| Spring | March 15 | March 1 |
| Summer | April 15 | April 1 |

Applications received after the priority deadline will be processed in the order received. Admission can not be guaranteed if materials are submitted after May 15.

Some programs have deadlines different from those stated above. Prospective applicants are advised to verify the program deadline with their academic department or its Web site.

Applicants whose native language is not English must demonstrate English language proficiency by submitting official test scores. Required tests and minimum scores are available from the Office of Admissions or its Web site: www.emich.edu/admissions.

Individual departments may require higher scores than the Graduate School. Students who score below the minimum required by their department may be admitted conditionally and will be placed in ESL courses. These assigned ESL courses will be in addition to the student's departmental program of study. The ESL condition does not affect a student's enrollment or visa status.

## Doctoral Degree

## Admission Requirements

Requirements for admission to a doctoral degree program include the following:
a) Submission of the completed Application for Graduate Admission, non-refundable application fee and all official graduate and undergraduate transcripts to the Office of Admissions;
b) The earned equivalent of a four-year, U.S. bachelor's degree or master's degree from an accredited college or university;
c) A minimum cumulative graduate grade point average of 3.0 on a 4.0 scale in the master's degree or, for those departments admitting directly from the bachelor's degree, a minimum cumulative GPA of 2.75 on a 4.0 scale. Applicants who do not meet minimum admission requirements may be considered for conditional admission (see below). Some departments require higher minimum GPAs; see specific program requirements;
d) Other departmental admission requirements, such as standardized test scores, letters of recommendation, personal statements, portfolios and interviews, are listed under the individual programs;
e) A statement of financial responsibility for those who are or will be on an F-1 or J-1 visa; and
f) Applicants whose native language is not English must demonstrate English language proficiency (see International Applicants, page 13).

The application and all supporting documents become the property of Eastern Michigan University and will not be returned to the applicant. Applicants are not admitted to the Graduate School and/or an academic program until they have been notified in writing of acceptance by the Office of Admissions.

## Transfer Credit

Post-baccalaureate degrees earned at Eastern Michigan University or another accredited institution may be applied to a student's program of study at the discretion of the student's doctoral program. With the exception of post-baccalaureate degrees, no more than 12 hours of transfer credit may normally be applied to a doctoral program. Exceptions to this policy require the approval of the department head and Graduate School.

## Academic Probation and Dismissal

Students are placed on academic probation at the end of any semester in which their cumulative EMU grade point average in courses taken for graduate credit is below 3.0. Probationary students who do not return to good standing by the end of the next two enrollment periods are dismissed from the University and are so notified in writing.

Doctoral students may be dismissed from a program if program requirements are not met. Individual departments may specify additional grounds for dismissal. Students who are dismissed from a program while in good academic standing may still be eligible for another graduate program at EMU.

## Time Limit for Completing Degree

Doctoral students must complete all requirements for the degree within seven years of the date of first enrollment. An extension of the seven-year time limit is permitted only upon recommendation of the student's dissertation committee and by the doctoral program director with the approval of the department head and Graduate School.

## Residency

Although the Graduate School does not require a specific period of campus residency, it nevertheless encourages the efforts of graduate programs to create a cohesive intellectual community.

Some EMU graduate programs do enforce a residency requirement even if the Graduate School does not. Students should check with their advisers and program descriptions to determine specific expectations and requirements. These may vary from one program to the next and may include attendance at guest lectures or conferences, or even specific periods of enrollment on the main campus.

## Faculty Participation in Doctoral Programs

Criteria and procedures for assigning faculty to teach doctoral-level courses, to chair or serve on dissertation committees, and to perform other tasks associated with doctoral programs are defined by the degree-offering department, with specific assignments formally reviewed at regular intervals by the department head with faculty input.

## Course Requirements

Doctoral students are normally expected to complete the equivalent of 90 hours beyond the baccalaureate degree. Specific course requirements are established by the student's program adviser and are clearly stated on the student's program of study, which shall be filed in the Office of Records and Registration no later than the end of the student's first year of study (or after the student has completed 12 hours of course work).

## Candidacy

The designation "doctoral candidate" refers to a student who has completed all designated course work and has passed a qualifying examination.

## Qualifying Examination

Policies and procedures for the qualifying examination vary from one doctoral program to another. All such policies and procedures, and all subsequent changes made to them, must be recommended by the doctoral program director and approved by the department head and Graduate School.

## Dissertation Committee

The task of the dissertation committee is to support the candidate throughout the dissertation process and to provide both formative and summative evaluation. Upon receiving candidacy, the student will select a committee chair by mutual agreement and on the basis of shared research interests. Committee chairs must be tenured or tenure-track, full-time faculty with a completed doctorate in the student's specialty. Together, the student and chair then select with their consent from three to five additional members (normally faculty from within the degree-granting department). Dissertation committees must have at least four members (including the chair) and no more than six members. At least half of the committee members must be from the student's home department. At least one member must be from outside the student's home department and will serve the committee as the Graduate School representative. One committee member may be from outside the pool of graduate faculty (e.g., faculty from other institutions, alumni, community members, corporate partners, internship supervisor, emeritus faculty). All committee members should be experts in at least some aspect of the student's dissertation topic area. The final committee roster, and any subsequent changes in committee membership, must be formally approved by the committee chair, department head and Graduate School. Substantive committee decisions and votes to approve the defense and the dissertation require a consensus of all members.

A manual with guidelines and requirements for the dissertation is available from the Graduate School's Web site. Deadline dates for submission of the dissertation to the Graduate School are November 1 for December graduation, March 1 for April graduation, May 15 for June graduation and July 1 for August graduation.

## Specialist's Degree

Requirements for admission to a specialist's degree program include the following:
a) Submission of the completed Application for Graduate Admission, non-refundable application fee and all official graduate and undergraduate transcripts to the Office of Admissions;
b) The earned equivalent of a four-year, U.S. bachelor's degree (and master's degree, if applicable) from an accredited college or university;
c) A minimum cumulative graduate grade point average of 3.0 on a 4.0 scale in the master's degree or, for those departments admitting directly from the bachelor's degree, a minimum cumulative GPA of 2.75 on a 4.0 scale. Applicants who do not meet minimum admission requirements may be considered for conditional admission (see below). Some departments require higher minimum GPAs; see specific program requirements;
d) Other departmental admission requirements, such as standardized test scores, letters of recommendation, personal statements, portfolios and interviews, are listed under the individual programs;
e) A statement of financial responsibility for those who are or will be on an F-1 or J-1 visa; and
f) Applicants whose native language is not English must demonstrate English language proficiency (see International Applicants, page 13).

The application and all supporting documents become the property of Eastern Michigan University and will not be returned to the applicant. Applicants are not admitted to the Graduate School and/or an academic program until they have been notified in writing of acceptance by the Office of Admissions.

## Master's Degree

Requirements for admission to a master's degree program include the following:
a) Submission of the completed Application for Graduate Admission, nonrefundable application fee and all official undergraduate and graduate transcripts to the Office of Admissions;
b) The earned equivalent of a four-year U.S. bachelor's degree from an accredited college or university;
c) A minimum cumulative undergraduate grade point average of 2.5 on a 4.0 scale, or 2.75 in the last half of the undergraduate program. Applicants who do not meet minimum admission requirements may be considered for conditional admission (see below). Some departments require higher minimum GPAs; see specific program requirements;
d) Other departmental admission requirements, such as standardized test scores, letters of recommendation, personal statements, portfolios and interviews, are listed under the individual programs;
e) A statement of financial responsibility for those who are or will be on an F-1 or J-1 visa; and
f) Applicants whose native language is not English must demonstrate English language proficiency (see International Applicants, page 13).

The application and all supporting documents become the property of Eastern Michigan University and will not be returned to the applicant. Applicants are not admitted to the Graduate School and/or an academic program until they have been notified in writing of acceptance by the Office of Admissions.

## Thesis

A number of departments offer the writing of a thesis, either as an option or a requirement. A manual with guidelines and requirements for the master's thesis is available from the Graduate School's Web site. A maximum of six
thesis hours may be used on a degree program. Deadlines for thesis submission to the Graduate School are November 15 for December graduation; March 15 for April graduation; June 1 for spring graduation; and July 15 for summer graduation.

## Types of Admission

Degree admission requires that the applicant meet both Graduate School and departmental admission requirements as stated in the Graduate Catalog. Admission to graduate studies may be unconditional or conditional. There are four categories of conditional admission:

## Conditional Admission

a) Condition 1: Curriculum Deficiencies. This conditional admission status applies to applicants who meet the Graduate School's admission requirements, but have curricular deficiencies or do not meet other departmental standards. Conditions to be met prior to gaining degree admission status are normally found on the Graduate Admissions Recommendation Form, sent to the student with the letter of admission.
b) Condition 2: Senior Status. This status applies to applicants completing an undergraduate degree at the time of application. It is valid for one semester only, and is removed upon submission of an official degree-posted transcript to the Office of Admissions.
c) Condition 3: English as a Second Language (ESL). ESL status applies to applicants who are non-native speakers of English and whose score on required language-proficiency tests was below the required minimum. Students admitted with the ESL condition must successfully complete ESL courses as assigned.
d) Condition 4: Academic Deficiencies. This status is granted to degree program applicants who do not meet the minimum undergraduate GPA requirement of the Graduate School or the academic department, whichever is higher. Students must complete a minimum of nine to twelve graduate hours as specified by the department while maintaining good academic standing ( 3.0 GPA ). These credits can only be applied to a graduate degree program upon the recommendation of the designated departmental adviser.

## Master's Degree Program in Individualized Studies

This 36 -hour program provides a flexible and innovative graduate-level experience for mature students with at least three years of career employment beyond the baccalaureate whose educational or professional goals are not met by other graduate degree programs at Eastern Michigan University.

With the assistance of two or more faculty members, applicants propose a program of study made up of a structured sequence of courses designed to meet a specific set of goals and objectives. Courses are taken from three (3) subject areas and a thesis or capstone project completes the program of study. Interested applicants must meet with the associate dean of the Graduate School.

## Certificate Programs

The graduate certificate program is for students with a bachelor's degree from an accredited institution and an interest in specialized studies. The advanced graduate certificate is for students with graduate degrees, who wish to stay current in their field or gain expertise in a specialized area.

Requirements for admission to a graduate certificate or advanced graduate certificate program include the following:
a) Submission of the completed Application for Graduate Admission, non-refundable application fee and all official undergraduate and graduate transcripts to the Office of Admissions;
b) The earned equivalent of a four-year U.S. bachelor's degree from an accredited college or university;
c) A minimum cumulative undergraduate grade point average of 2.5 on a 4.0 scale, or 2.75 in the last half of the undergraduate program;
d) Other departmental admission requirements, such as standardized test scores, letters of recommendation, personal statements, portfolios and interviews, which are listed under the individual programs in this catalog;
e) A statement of financial responsibility for those who are or will be on an F-1 or J-1 visa; and
f) Applicants whose native language is not English must demonstrate English language proficiency (see International Applicants, p. 13).

The application and all supporting documents become the property of Eastern Michigan University and will not be returned to the applicant. Applicants are not admitted to the Graduate School and/or an academic program until they have been notified in writing of acceptance by the Office of Admissions.

## Types of Admission

Certificate admission requires that the applicant meet both Graduate School and departmental admission requirements as stated in the Graduate Catalog. Admission to a graduate certificate or advanced graduate certificate program may be unconditional or conditional. There are four categories of conditional admission.
a) Condition 1: Curriculum deficiencies. This conditional admission status applies to applicants who meet the Graduate School's admission requirements, but have curricular deficiencies or do not meet other departmental standards. Conditions to be met prior to gaining certificate admission status are normally found on the Graduate Admissions Recommendation Form, sent to the student with the letter of admission.
b) Condition 2: Senior Status. This status applies to applicants completing an undergraduate degree at the time of application. It is valid for one semester only, and is removed upon submission of an official degreeposted transcript to the Office of Admissions.
c) Condition 3: English as a Second Language (ESL). ESL status applies to applicants who are non-native speakers of English and whose score on required language-proficiency tests was below the required minimum. Students admitted with the ESL condition must successfully complete ESL courses as assigned.
d) Condition 4: Academic Deficiencies. This status is granted to certificate program applicants who do not meet the minimum undergraduate GPA requirement of the Graduate School or the academic department, whichever is higher. Students must complete a minimum of 6 graduate hours as specified by the department while maintaining a good academic standing (3.0 GPA). These credits can only be applied to a graduate certificate program upon the recommendation of the designated departmental advisor.

## Certificate Requirements

Both graduate and advanced graduate certificate programs must consist of at least 12 graduate-level hours. One 400 -level course may be used on the graduate certificate program. No $400-$ level courses may be used on the advanced graduate certificate. A minimum GPA of 3.0 must be achieved. In most cases, credits earned for certificate programs may apply to a graduate degree. All requirements for either certificate must be completed within three years of first enrollment.

## Non-Degree Admission

Non-degree admission status applies to students who do not wish to pursue a degree program, or who are prevented from doing so by the Graduate School or their academic department. Non-degree status may be appropriate in the following situations:
a) Professional Teacher Certification. Certified teachers and other education professionals who do not intend to pursue a graduate-degree program enroll in this category. Applicants are seeking a second teaching certificate (see Teacher Certificate section of this catalog).*
b) Continuing Education. Applicants who enroll through Continuing Education are non-degree students. Students seeking a degree must formally apply and be admitted by the Graduate School to a graduate program, and any courses taken through Continuing Education must be approved by the academic department and the Graduate School as noted on a program of study.
c) Graduate Non-degree: This status is intended for applicants with a minimum undergraduate GPA of 2.5 who wish to enroll in graduate or undergraduate courses for self-enrichment purposes or to obtain
other professional qualifications such as teaching endorsements. This admission status does not lead to a graduate degree. Applicants must provide a bachelor's degree-posted transcript with at least 60 hours of course work and a 2.5 GPA. If 60 hours were not earned from the bachelor's-degree-granting institution, all undergraduate transcripts must be provided to the Office of Admissions.
d) Undergraduate Non-degree: An applicant whose undergraduate grade point average was 2.0 to 2.5 may be admitted as an undergraduate student to enroll in undergraduate courses for which course prerequisites have been met. An Undergraduate Admission Application must be completed and submitted with fee to the Office of Admissions. See the Undergraduate Catalog for further details.

Note:
*Applicants seeking their first (provisional) teaching certificate will apply as undergraduate post-baccalaureate teacher certificate students. See the EMU Undergraduate Catalog for details.

## Teacher Certification

Applicants with bachelor's degrees who wish to pursue provisional teacher certification (first certificate) apply for admission as undergraduates. See the Undergraduate Catalog and admissions application for details. Applicants seeking a second or professional teacher certification, or teaching endorsements, apply for admission as non-degree graduate students.

Undergraduate credit used to satisfy teacher certification or endorsement requirements cannot be applied to a graduate degree. Most questions regarding teacher certification or endorsements should be directed to:

## College of Education

Office of Academic Services
206 Porter Building
Eastern Michigan University
Ypsilanti, MI 48197
(734) 487.1416

In some unusual circumstances, information may be required from the state Department of Education office. In those cases, write to:

Michigan State Department of Education
Teacher Education and Certification Section
P.O. Box 30008

Lansing, MI 48909
The Administrative Rules Governing the Certification of Michigan Teachers require that applicants for certification apply no more than five years after credit requirements are met. Payment of the appropriate fee is required before the certificate will be issued. Consult the College of Education's Office of Academic Services for more information.

## Provisional Certification

Admission to the provisional certification program requires admission to the College of Education. The College of Education requires prospective students to attend a general advising session that outlines the admission procedures and requirements for attaining teacher certification. Subsequently, individual advising appointments may be scheduled for evaluation of undergraduate course work and the design of a program of study. General requirements for admission to post-baccalaureate teacher certification include the following:
a) Submission of the completed Undergraduate Admission Application, non-refundable application fee and all official undergraduate transcripts to the Office of Admissions;
b) The earned equivalent of a four-year, U.S. bachelor's degree from an accredited college or university, with a minimum cumulative undergraduate GPA of 2.5 on a 4.0 scale;
c) Submission of official results from the Michigan Test of Teacher Certification (MTTC), with a minimum score of 220 on each section;
d) Completion of the Moral Turpitude statement on the College of Education application;
e) A personal statement;
f) A letter of recommendation;
g) A statement of financial responsibility for those who are or will be on an F-1 visa; and
h) Applicants whose native language is not English must demonstrate English language proficiency (see International Applicants, page 13).

The application and all supporting documents become the property of Eastern Michigan University and will not be returned to the applicant. Applicants are not admitted to Eastern Michigan University and the College of Education until they have been notified in writing by the Office of Admissions.

## Graduates of Michigan Institutions

Candidates for teacher certification must successfully complete the professional studies courses in the teacher education program. Upon successful completion, Eastern Michigan University will recommend the student for certification. When some of the professional education courses have been completed at another institution, it may be advantageous to have that institution make the recommendation for certification while approving the remaining requirements being completed at Eastern Michigan University.

## Graduates of Teacher Training Institutions in Other States

Persons who hold a current valid teaching certificate from another state may apply to the Michigan Department of Education for a Michigan provisional certificate. Persons who have completed at least 12 hours in an accredited out-of-state education program may apply to the Michigan Department of Education for an evaluation of their credentials to determine what courses are needed to qualify for a Michigan provisional certificate. The student then applies for admission and submits a copy of the plan of work prepared by the Michigan Department of Education with the application materials. Graduates who do not fit either of the above categories must be recommended for certification by a Michigan teacher-training institution. The basic minimum requirement is normally 30 credit hours of course work at Eastern Michigan University. Michigan Department of Education application forms are available from the College of Education's Office of Academic Services, 206 Porter Building.

Elementary Endorsement to a Secondary Certificate, or Secondary Endorsement to an Elementary Certificate
To qualify for an additional provisional certificate, applicants must complete a minimum of 18 hours of credit following the first certificate. These hours must include the appropriate methods courses and three or four hours of student teaching (or proof of two years professional teaching experience at the appropriate level). A written plan of work will be provided by the College of Education, upon request.

## Additional Teaching Majors and/or Minors

Majors require a minimum of 30 appropriate hours for a pure major or 36 hours for a group major. Minors require a minimum of 20 appropriate hours for a pure minor or 24 hours for a group minor. Students should contact Academic Advising for information about course requirements, and departmental approval may be required. A copy of the approved program of study must be filed with the Office of Records and Registration.

## Renewal of a Provisional Certificate

Persons whose provisional certificate has expired without their having acquired three years of successful teaching experience may renew the certificate by completing 10 hours of approved course work after receiving the provisional certificate, as part of the 18 -hour planned program for professional certification.

## Certification in Special Fields

Those seeking certification in art education, physical education, industrial education, special education, music or reading should contact the College of Education's Office of Academic Services for more information.

## Professional Certification

Applicants seeking professional teaching certification apply as non-degree graduate students. They must have completed three years of successful teaching and 18 hours of credit, the majority of which must be from Eastern Michigan University, after the issuance of the Michigan provisional certificate. Contact the College of Education's Office of Academic Services for more information.

Students in master's degree programs may apply the first 18 hours of that program to this requirement. Therefore, it is strongly recommended that those seeking professional certification seek admission to a graduate degree program.

## Second Bachelor's Degree

Second bachelor's degree students are admitted as undergraduate students using the undergraduate admissions form. See the Undergraduate Catalog for details.

## Guest Students

The Michigan Intercollegiate Graduate Studies (MIGS) program offers graduate students at many Michigan institutions the opportunity to take advantage of graduate courses or experiences offered by Eastern Michigan University or other institutions in the state. Applicants complete the MIGS application form (available in the Graduate School, Starkweather Hall, and on the Graduate School's Web site) and secure the approval of their adviser for the courses to be taken.

Currently enrolled students in a graduate program at other institutions who wish to take a graduate course at Eastern Michigan University for transfer to their home institution, may do so by enrolling as non-degree students. Guest students in the College of Business must meet the standards for regular admission to business programs.

## International Applicants

An applicant is considered an international student if either of the following conditions exists:
a) the applicant is not a U.S. citizen or permanent resident, or
b) the applicant currently has or will require a visa to live, work or study in the United States.

Priority deadlines for receipt of all application materials for graduate degree and certificate programs are:

| Semester/Session | Deadline |
| :---: | :---: |
| Fall. | ....Feb. 15 |
| Winter | .Oct. 15 |
| Spring. | March 1 |
| Summer. | .April 1 |

General admission requirements for international applicants include:
a) Submission to the Office of Admissions the completed Application for Graduate Admission, non-refundable application fee and all official graduate and undergraduate transcripts or true-attested copies from each institution attended;
b) The earned equivalent of a four-year, U.S. bachelor's degree from an accredited college or university;
c) A minimum cumulative undergraduate grade point average of 2.5 on a 4.0 scale, or 2.75 in the last half of the undergraduate program. Applicants who do not meet minimum admission requirements may be considered for conditional admission;
d) Other departmental admission requirements, such as standardized test scores, letters of recommendation, personal statements, portfolios and interviews, which are listed under the individual programs in this catalog;
e) A statement of financial responsibility for those who are or will be on an F-1 or J-1 visa; and
f) Evidence of English language proficiency as demonstrated by official test scores on the Test of English as a Foreign Language (TOEFL),

Test of Written English (TWE), Michigan English Language Assessment Battery (MELAB), or International English Language Testing System (IELTS). Individual departments may require higher scores than the Graduate School; for specific requirements, contact the Office of Admissions or visit its Web site: www.emich.edu/public/ admissions/admissions.html.

Students who score below the minimum required by their department may be admitted conditionally and will be placed in ESL courses. Proficiency in English must be demonstrated by scoring at or above EMU's minimum level on the TOEFL, IELTS or MELAB. Minimum test scores for these examinations are as follows:

```
IELTS.
        .6.5
TOEFL
    550/213
MELAB........................................................................ }7
(students should see the Admission Web site for score changes)
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Some graduate programs require a higher score. Some graduate programs require a TOEFL/IELTS/MELAB and a writing score (TWE or the writing subscore on either the TOEFL or the MELAB).

Effective fall 2005, the format of the TOEFL test will change. See the admissions and Graduate School Web sites for minimum required sub-scores.

## English as a Second Language

English as a Second Language (ESL) courses are taught in the Department of Foreign Languages and Bilingual Studies. These courses carry academic credit and are calculated in the total GPA.

Admission status is based on the first English proficiency score that students send to the University. If a later test results in a higher score, it also should be sent to the Admissions Office. All scores must arrive two weeks before the first day of the term.

Students will be given ESL conditional admission if they are admitted to the University, but score below the minimum scores required below:

$$
\begin{aligned}
& \text { Undergraduate TOEFL (CBT) .......................................... } 173 \\
& \text { Undergraduate TOEFL (PBT) ........................................... } 500 \\
& \text { Undergraduate TOEFL (iBT) .............................................. TBD } \\
& \text { Undergraduate MELAB ...................................................... } 72 \\
& \text { *Some graduate programs require higher scores. Check with the program } \\
& \text { department. }
\end{aligned}
$$

Students with an ESL conditional admission must take ESL classes in the first semester in which they are enrolled. Placement into ESL classes will be determined by the sub-scores achieved on the TOEFL or MELAB. (Contact the ESL Office for more information.)

Once placed into ESL courses students must complete each course with a grade of C or higher to advance to the next level. (Students who receive a grade of C - or lower for a course must repeat that course in the next semester in which they are enrolled.) Students must continue ESL courses each semester until they finish the 400 level for undergraduate students, or the 500 level for graduate students.

When students are at the 400 or 500 level of ESL, they may take other courses in the University at the same time.

When students have successfully completed the required ESL courses, their admission status is changed from conditional to regular.

Regular University academic probation and dismissal policies apply to students in ESLN courses.

For information on the TOEFL or TWE, contact:
Educational Testing Service
P.O. Box 6155

Princeton, New Jersey 08541-6155
609.771.7100
www.toefl.org
For information on the MELAB, contact:
English Language Institute
University of Michigan
3020 NUBS
Ann Arbor, Michigan 48109
734.764.2416

The application and all supporting documents become the property of Eastern Michigan University and will not be returned to the applicant. Applicants are not admitted to the Graduate School and/or an academic program until they have been notified in writing of acceptance by the Office of Admissions.

## Financial Information

## Tuition and Fees

Fees Subject to Revision
All University fees and assessments are subject to change by action of the Board of Regents.

## Application Fee

A one-time, non-refundable $\$ 30$ application fee is charged to each applicant to the Graduate School. Applications for additional degrees or certificates are subject to another non-refundable fee.

## Graduation Fee

A non-refundable graduation fee of $\$ 90$ is charged to each student applying for a degree or a graduate or advanced graduate certificate.

Graduation fees for teaching certificates are set by the undergraduate division and appear in the Undergraduate Catalog.

## Tuition Schedule

Tuition is assessed for all credit hours for which a student is registered. Undergraduate tuition is assessed for all 100- to 400 -level courses. Graduate tuition is assessed for all 500- to 900 -level courses.

Tuition rates per credit hour are subject to review at each June Board of Regents meeting and may increase.
2004-2005 Michigan and Ohio resident rates, per credit hour:
Undergraduate courses, up to 499: ....................................... $\$ 286.90$
Graduate courses, lower level (500-699):.......................... $\$ 327.50$
Doctoral assessment, upper level (700-999):..............

2004-2005 non-resident rates, per credit hour:
Undergraduate courses, up to 499: .................................. $\$ 490.45$
Graduate courses, lower level (500-699): ........................... $\$ 575.35$
Doctoral assessment, upper level (700-999):.......................... $\$ 648.70$
A registration fee of $\$ 40$ per semester, a general fee of $\$ 21$ per credit hour, a student union fee and a technology fee of $\$ 10$ per credit hour are also assessed. Additional information is available at www.emich.edu. Graduate classes in some programs have an additional per credit hour program fee.

[^0]Education (all departments), ..... \$37.50
Health and Human Services (all departments except nursing) ..... $\$ 37.50$
Leadership and Counseling (doctoral) .....  $\$ 50$
Nursing. ..... \$50
Technology (all departments except military science) .....  $\$ 40$
Foreign Languages (all departments) ..... \$30
Fine Art (all departments). ..... \$37.50
All other courses (not covered above) excluding militaryscience\$10

## Official Registration Day

For purposes of payment of registration fees and tuition assessment, the official registration day for each student is the day the student completes initial registration for the semester or session.

## Qualification for Michigan Residence

To be eligible for the resident tuition rate, students must demonstrate that they are already Michigan/Ohio residents or are coming to the University for reasons primarily other than to attend the University. The following policies will be used to determine residency:
a) Minors: The residence of a student under 18 years of age follows that of the student's parents or legal guardians. If the parents or legal guardians meet the criteria under (f) below, Criteria for Determining Intent, the student is considered a resident for tuition purposes.
b) Nondependent Students: A student 18 years of age or older must meet the criteria in ( f ) below, Criteria for Determining Intent.
c) Spouse of Eligible Person: The residence of a student otherwise classified as a nonresident for tuition purposes will follow that of the student's spouse, if the spouse is eligible for classification as a resident for tuition purposes. This applies only to U.S. citizens or to aliens admitted for permanent residence in the United States who have obtained a permanent or diplomatic visa.
d) Aliens: A noncitizen will be eligible for classification as a resident for tuition purposes only if the student is lawfully admitted for permanent residence in the United States, has received a permanent or diplomatic visa, and meets the criteria in (f) below, Criteria for Determining Intent, The University provides two installment payment plans for fall and winter.
e) Migrants: Michigan migrants will be classified as residents for tuition purposes if they or their parents or legal guardians were employed in Michigan for a least two months during each of three of the preceding five years. Verification of employment as migrant workers should be secured from the Michigan Farm Labor and Rural Manpower Services Office. Other appropriate evidence also may be used by migrant workers to establish their status.
f) Criteria for Determining Intent: Students from outside the state and to whom the above policies are not applicable shall be considered nonresident for tuition purposes unless it can be determined that their primary purpose in coming to Michigan is to establish residency in the state, rather than to attend a university. For the purpose of determining intent in such cases, the following criteria are considered, no one of which should be considered controlling:

1. High school attendance in Michigan
2. Reliance upon Michigan sources for financial support
3. Residence in Michigan of family, legal guardian, or other relatives or persons legally responsible for the student
4. Former residence in Michigan and maintenance of significant connections therein while absent
5. Continuous presence in Michigan during periods when not enrolled as a student
6. Long-term military commitments in Michigan
7. Traditional considerations such as voter registration, ownership of real estate, source of driver and vehicle licenses, taxpayer status, and self-supporting or dependency on others, whether residents of Michigan or elsewhere
g) Determination of Residence: Residence will be determined at the time of initial admission to the University. Questions of residency status should be raised with the Student Accounting Office. If circumstances change to the extent that a student is no longer considered a resident for tuition purposes, the student will be classified as a nonresident after six months.

## Note:

It is the responsibility of students, prior to registration, to raise questions in the Student Business Services Office regarding their right to be registered as resident students. The administration is authorized to establish procedures and delegate authority for determining the domicile of students for tuition purposes and to make exceptions within the spirit of this policy.

## Tuition Reciprocity Agreement With Ohio

Ohio residents may attend Eastern Michigan University at Michigan resident tuition rates, and Michigan residents of Monroe County can attend the University of Toledo at Ohio resident tuition rates. This reciprocity agreement by the Michigan State Board of Education and the Ohio Board of Regents became effective fall 1978 and is periodically re-evaluated.

## Payment of Tuition

The due date for tuition and other University fees is printed on the online bill accessed from the student's my.emich account. To ensure a correct billing address, it is the student's responsibility to inform the University of any address changes by completing a change of address form in the Office of Records and Registration.

The University provides two installment payment plans for fall and winter semesters. The first requires payment of 50 percent of tuition, room and board, and 100 percent of required fees before the start of classes. The remaining balance, including any course fees, is payable approximately the eighth week of the semester. An installment-payment service fee of $\$ 20$ is charged for this plan. A late payment of $\$ 20$ per month is assessed if payment is late. The second installment-payment plan requires 10 monthly payments, beginning June 1 each year. There is a service fee of $\$ 65$ to enroll in the plan. Tuition Protection Coverage is also available with this plan.

Eastern Michigan University accepts Visa ${ }^{\circledR}$ and MasterCard ${ }^{\circledR}$ in payment of tuition, fees and room and board.

The University may withhold services such as registration, housing and transcripts if a student account is past due. Payment of current semester charges does not relieve the student of past-due obligations.

## Program Adjustment Fee

Program adjustments may be made without penalty prior to the beginning of the semester. During the first eight business days of the fall/winter semesters and the first four business days of the spring/summer sessions, a program adjustment fee of $\$ 10$ per transaction will be assessed for each drop. No program charges are assessed for adjustments required as a result of University actions.

## Late Registration Fee

A late registration fee of $\$ 150$ is charged to those students who do not complete registration before the official first day of classes each semester. Checks returned by a bank constitute late registration, resulting in a fee charge. Students enrolling after the mid-point of the semester will be charged a $\$ 200$ late fee.

## Cancellation of Registration

Registered students who decide before classes begin not to return to EMU must complete a Cancellation of Registration form or send a letter to the Office of Records and Registration. Any housing contracts must also be canceled in the Housing Office in order to cancel tuition and room/board assessments.

## Withdrawal from the University

Complete withdrawal from the University must be requested in writing through the Office of Records and Registration. Any tuition/fee adjustment responding to a written request is based on the postmark date of the request. The policy for withdrawal and tuition adjustment from the University is:
a) First Eight Days (four days for spring/summer): Students receive a 100 percent tuition credit adjustment. No grades will be posted.
b) Ninth Through 19th Day (fifth through 10th day for spring/ summer): Students receive a 50 percent tuition credit adjustment, less an administrative fee. Grades of W will be posted.
c) Twentieth Through 38th Day (11th through 19th day for spring /summer): Students receive a 25 percent tuition credit adjustment, less an administrative fee. Grades of W will be posted.
d) Thirty-ninth Day (20th day for spring /summer) Through the First Day of Final Examinations: Students receive no tuition credit adjustment. Grades of W will be posted.
e) After the First Day of the Final Examination Period: No withdrawal will take place.

## Tuition Credit for Reduced Load

A tuition credit adjustment of 100 percent minus the administration fee will be made for students who decrease their academic load prior to the eighth business day of the fall/winter semesters (fourth day for spring/ summer). These dates are published each semester in the class schedule book. No credit adjustments will be made after the above dates.

## Suspended or Dismissed Students

A student who is suspended or dismissed from the University during a semester will receive a tuition credit adjustment based on the withdrawal schedule above. Any tuition/fee adjustment will be based on the date the appropriate University administrator notified the student of suspension or dismissal. The date used for housing and food service adjustments will be the day service to the student is terminated.

## Account Adjustments and Refunds

Students who feel that their circumstances warrant an exception to published policy regarding "Withdrawal from the University" or "Tuition Credit for Reduced Load" should pursue the following appeal process:
a) Complete the tuition and fee appeal application, available from the Student Business Office. Include an explanation of the extraordinary circumstances and any supporting documentation. An approval or denial will be issued in writing by mail.
b) If the application is denied, students may appeal in writing to the manager of Student Business Services. Be sure to include any additional pertinent information with the appeal.
c) If an acceptable solution is not achieved, a final appeal may be made to the vice president for business and finance.

## Applied Music Fee

Students accepted for private music lessons will be charged an applied music fee. Consult the Music and Dance Department for current rates. Fees are not refundable after the first lesson.

## Workshop Sessions

Tuition and registration fees apply to workshop sessions at the same rate as for regular class sessions. However, 100 percent of the tuition assessment will be refunded to students who withdraw prior to the close of business ( 5 p.m.) on the first day of the session. No other adjustment or refund will be granted.

## Responsibility for Financial Obligations

A student is eligible for registration or graduation only if all financial obligations to the University have been met. Transcripts and diplomas will be withheld and the student will be ineligible for further registration until all obligations have been fulfilled.

## Financial Assistance

Various types of financial aid are available to graduate students, including assistantships, fellowships, scholarships, work-study jobs, and loans. Some of these programs are administered by the Office of Financial Aid and others by the Graduate School.

## Graduate Assistantships

Graduate assistantships are administered by the Graduate School. Assistantships are very competitive. They provide both financial support (tuition scholarships and stipend) and experiential learning for degree-admitted students. Graduate assistantships are normally available for up to two years (four enrollment periods), subject to the recommendation of an academic department and approval by the Graduate School. Graduate assistants (G.A.'s) must maintain a minimum 3.0 cumulative GPA and make satisfactory progress toward their degree.

Three categories of assistantship are available: departmental (appointed by an academic department); underrepresented populations (approved by the Graduate School); and need-based work study (approved by the Graduate School and the Office of Financial Aid). International students are eligible only for departmental G.A. positions.

To be eligible, applicants must:
a) Be fully or conditionally admitted (conditions 1,2 or 3 ) to an academic degree program;
b) Have achieved a cumulative undergraduate GPA equal to the average of students already admitted to the college's degree programs (usually 3.0); and
c) (U.S. citizens only) Complete the required financial aid forms (including the Free Application for Federal Student Aid (FAFSA)) through the Office of Financial Aid. The FAFSA must be submitted by February 15 for consideration for the following fall semester. Receipt of a graduate assistantship will affect other financial aid awards.

Full-time graduate assistantships provide the following benefits:
a) Up to 18 credit hours of tuition per fiscal year. (Tuition benefits are prorated for part-time assistantships and for G.A.'s beginning their appointments after the start of the semester);
b) Payment of the registration, general University, technology and student union fees;
c) Parking permit for selected lots, library privileges and a 10 percent discount on purchases at the University bookstore;
d) Variable stipends are offered based on department of hire - see Web site (as of 2004-2005, the average stipend is $\$ 8,100$ ); and
e) Valuable experiential learning opportunities.

Students should contact their academic department for information on G.A. positions. The Graduate School can provide more information on the G.A. program, including descriptions of available G.A. positions and provide copies of the policies governing the program.

Graduate assistantships for underrepresented populations are available to highly qualified students. The University encourages the application and enrollment of promising graduate students from underrepresented populations based on the academic discipline and recognizes the need for well-trained scholars. For more information on this program, contact the associate dean of the Graduate School.
G.A. positions may be offered to international students holding F1 or J1 visas or other visa-type holders with valid work permits.

Applications are available in the Graduate School or its Web site, www.gsr.emich.edu.

## University Fellowships

Fellowships are a distinction of honor awarded to select graduate students on the basis of academic merit. The fellowship can be up to $\$ 4,000$; fellows receiving $\$ 2,000$ or more must enroll for at least eight graduate credits per semester; fellows receiving less than $\$ 2,000$ must enroll for at least four graduate credits per semester.

To be considered for a graduate fellowship, new graduate students must present a minimum 3.6 cumulative undergraduate GPA; current graduate students must present a minimum 3.6 cumulative graduate GPA.

Graduate fellows (1) must hold degree admission to an academic program leading to a master's, master of fine arts, or specialist's degree; (2) must maintain a cumulative GPA of 3.6 while holding the fellowship; (3) may apply for reappointment for one additional academic year if they continue to achieve a 3.6 cumulative graduate GPA.

Applications are available in the Graduate School or its Web site, www.gsr.emich.edu.

## Need-Based Aid

## Application

To apply for need-based aid, graduate students must file the Free Application for Federal Student Aid (FAFSA). Based on information reported on the FAFSA, the federal government calculates the Expected Family Contribution (a number that equates to the student's ability to pay for college). The Expected Family Contribution is subtracted from EMU's cost of education. Need is the difference between the student's ability to pay and the cost of education.

The FAFSA should be filed in January of each year, prior to fall enrollment. Graduate students who are admitted to a graduate degree program will be notified of their eligibility for financial aid once EMU receives their application results from the FAFSA processor. Need-based aid is automatically awarded for fall and winter semesters. Students who need financial aid for spring and summer sessions must file an additional application, available in the Office of Financial Aid or its Web site beginning February 15 each year.

To be eligible for federal and state need-based aid, students must:
a) Be accepted by the Graduate School as either a regular or conditionally admitted student in a degree program. Students in this category may borrow up to the cost of their education (not to exceed $\$ 18,500$ ) annually, in any combination of subsidized and unsubsidized Stafford Loans.
b) Maintain a cumulative graduate GPA of 3.0, complete 75 percent of classes attempted, and complete the graduate degree within 150 percent of the program's published minimum credit hours.

## Federal and State Aid

Federal and state work study is awarded to eligible students who demonstrate need. Students may work up to 20 hours weekly on campus or at participating off-campus agencies during the fall and winter semesters. Hourly wages are set by the employer. Full-time work-study positions are also available for students who wish to earn during the spring and/or summer sessions, if the student will be enrolled in the following fall semester, FAFSA for the upcoming year is required along with the full-time College Work Study application available in April each year.

Perkins Loans are need-based, long-term educational loans of up to $\$ 6,000$ per year. Borrowers must begin repayment nine months after graduating, leaving school or dropping below half-time status. Students have 10 years to repay the loan. Repayment schedules depend on the amount borrowed. Repayment terms may be arranged with the Student Loan Accounting Office before leaving EMU.

Subsidized and unsubsidized Stafford Loans are student loans, which carry low variable interest rates. Graduate students may borrow the cost of education (not to exceed $\$ 18,500$ annually). The maximum loan amount per semester depends on the cost of attendance and other financial aid. Students may be awarded less than the yearly maximum if they receive other financial assistance that is used to cover a portion of the cost of attendance.

The cumulative loan limit is $\$ 138,500$ for graduate or professional students (only $\$ 65,500$ of this amount may be in subsidized loans). Interest on the subsidized Stafford Loan does not accrue until the student graduates, leaves school or drops below half-time status. Interest on the unsubsidized Stafford Loan accrues from the time the loan is disbursed until it is paid in full. If the student allows the interest to accumulate, it will be capitalized - that is, the interest will be added to the principal amount of the loan and will increase the amount that needs to be repaid.

## Work-Study Graduate Assistantships

A limited number of work-study graduate assistantships are funded through the College Work-Study Program. Interested students should contact the Graduate School. Students must submit G.A. application material as well as the FAFSA by February 15 for the following fall semester.

## Other Aid

Student employment listings are maintained by the Student Employment Office. No demonstration of financial need is necessary. On-campus employment is limited to 20 hours per week.

Off-campus employment is also listed in the Student Employment Office, as well as with the Job Location and Development Office.

Summer employment opportunities are available with campus, resort, recreational, business, industrial and governmental agencies. Listings for such positions begin during the winter semester in the Student Employment Office.

Adult Student Tuition Loans are tuition-only loans available from the Student Loan Accounting Office. To be eligible for a loan of up to $\$ 500$, the applicant must be at least 21 years old, earn a minimum annual net income of $\$ 15,000$, be enrolled at EMU at the time funds are released, have no past-due obligations to EMU, have repaid loans satisfactorily and demonstrate sufficient means to repay the loan by the due date.

University Short-Term Loans are available for direct and indirect educational expenses from the Student Loan Accounting Office. Applicants must be enrolled at EMU and have a minimum 3.0 GPA at the time funds are released, have no past-due obligations to EMU, have repaid previous loans satisfactorily and demonstrate sufficient means to repay the loan by the due date.

Employer Tuition Reimbursement Plans are offered by many companies. Graduate students are encouraged to investigate their employer's policy.

## Awards and Scholarships

Guidelines and application forms for the following awards are available in the Graduate School or its Web site:
a) The Graduate Deans' Award for Research Excellence is a $\$ 250$ cash award made in the fall and winter semesters to reward excellence in ongoing or completed research projects.
b) The Barton Scholarship is a one-time competitive award to EMU graduating seniors of up to $\$ 4,000$ for graduate study at EMU or U-M. Applications are considered for the fall and winter semesters.
c) The Anton Brenner Scholarship is a one-time award of $\$ 500$ to be applied to tuition and fees. Applications are considered by the Graduate School for each fall semester.
d) The Undergraduate Symposium Fellowship is a one-time award of $\$ 1,000$ to students who participated in the annual Eastern Michigan University Undergraduate Symposium and wish to continue their education as a graduate student at EMU. Applications are submitted to the College of Arts and Sciences.

For additional information on scholarships available to graduate students or general financial aid information, contact the Office of Financial Aid or its Web site: www.emich.edu/public/fin_aid/finhome.html.

## Student Budgets

In-state and Ohio student budgetsGraduate/Specialist In-State (On/Off Campus)
*Tuition and fees....................................................... \$4,880
Room and board ..... \$7,480
Books and supplies. ..... $\$ 900$
Transportation. ..... \$1,200
Miscellaneous ..... \$1,200
Loan fees. ..... \$100
Total ..... \$15,760
Doctoral In-State (On/Off Campus)
*Tuition and fees.. ..... \$5,584
Room and board ..... \$7,480
Books and supplies. ..... $\$ 900$
Transportation ..... \$1,200
Miscellaneous ..... \$1,200
Loan fees ..... \$100
Total ..... \$16,464
Out-of-state student budgets Graduate/Specialist Out-of-State (On/Off Campus)
tuition and fees ..... \$9,346
Room and board ..... $\$ 7,480$
$\$ 900$

| Transportatio | . \$1,800 |
| :---: | :---: |
| Miscellaneous | . \$1,200 |
| Loan fees . | . \$100 |
| Total ........................................ | . \$20,826 |
| Doctoral Out-of-State (On/Off Campus) |  |
| *Tuition and fees. | . \$10,530 |
| Room and board | . \$7,480 |
| Books and supplies | . \$900 |
| Transportation....... | . \$1,800 |
| Miscellaneous ......... | . \$1,200 |
| Loan fees ......... | . 100 |
| Total | . $\mathbf{2 2 , 0 1 0}$ |

Note:
*Tuition and fees are based on 16 credit hours.

## Academics

## Registration and Grading

## Registration

Students may not attend classes unless they are properly registered and have paid appropriate fees.

Students who have not enrolled for eight consecutive semesters (two years) must complete an Enrollment Change form from the Office of Admissions before registering. For some programs, departmental evaluation for readmission will be required.

Students who do not enroll during the semester in which they are admitted must update their admission by submitting an Enrollment Change form to the Office of Admissions before registration is permitted.

## Orientation

Orientations, scheduled at the beginning of new semesters, provide an overview of academic and campus life to new students. The graduate student and graduate assistant orientations cover such topics as: Graduate School policies, ID cards, parking passes, e-mail accounts, financial aid, campus employment or assistantships, Career Services, public safety, library services, University computing, campus life, student health services, student affairs and international student information. They provide not only answers to your questions about the graduate experience, but also a place to get to know fellow students. Students are encouraged to attend.

For more information on orientations, visit the Graduate School Web site at www.gsr.emich.edu.

## Program of Study

A program of study, which is the list of courses you will take to complete your degree, is required for students in all degree and certificate programs. Students who fail to obtain a program of study approved by their adviser assume full responsibility for their registrations and for satisfying University, Graduate School and departmental program requirements. An approved program of study must be on file in the Office of Records and Registration, 303 Pierce Hall, in order to meet graduation requirements. Students should schedule an appointment with their academic/graduate adviser to set up a program of study as soon as possible within their first semester.

## Undergraduate 400-Level Courses for Graduate Credit

Some 400-level undergraduate courses are available for graduate credit. Students taking these courses are required to perform additional graduate-level work. Request forms are available in the Office of Records and Registration or the Graduate School and their Web sites. The form must be approved by the instructor and the student's adviser and then returned to the Graduate School at the beginning of the semester or term.

No more than nine hours of 400 -level course work may be applied toward a graduate program. Such courses must appear on the student's program of study to be applied toward a degree. See the Graduate School Web site for a list of pre-approved 400 -level courses.

Independent study or special topics courses at the 400 -level will not receive graduate credit. Students must use a 500 -level independent study or special topics number.

## Enrollment in Graduate Courses by Advanced Undergraduates

An undergraduate student may enroll in 500-level courses with instructor/ department approval if a) the student has completed 85 or more hours with a minimum GPA of 2.5 , or b ) if the student is a member in good standing of the University Honors Program, has completed 70 or more hours, and has written permission from the Honors Director. No more than 15 graduate hours may be taken by an undergraduate student.

## Auditing Courses

Graduate students who wish to audit a course must register for audit status and pay the same tuition and fees as for academic credit enrollment. See the class schedule book for audit deadlines.

## Pass/Fail Grading Option

Graduate students may elect a pass/fail grading option when enrolling in undergraduate courses for enrichment that will not apply to a graduate program of study. Undergraduate curriculum deficiency requirements noted on a program of study may not be completed with a pass grade, unless approved by a graduate advisor.

Students should enroll in the course then complete the Pass-Fail Application Form for Graduate Students submitting it to the Graduate School, Starkweather Hall, before the end of the first week of the semester. The form may be obtained from the Office of Records and Registration, the Graduate School or its Web site. Students complete all course work and the faculty member submits a letter grade at the end of the semester to the Office of Records and Registration. The grade is converted to pass/fail. A student may cancel the pass/fail grading option at any time before the last day of classes for the semester just prior to exams, and the letter grade submitted by the faculty will post to the student's transcript.

## Independent Study

Independent study enables graduate students to pursue academic interests not addressed in conventional courses. A maximum of six hours of independent study may be used on a degree program. See the section on Course Limitations below.

## Course Limitations

No more than six hours in one of the following categories may be used to satisfy graduate degree requirements:

Special Topics: 590, 591, 592, 679, 680, 681
Independent Study: 597, 598, 599, 697, 698, 699
Seminar: 693, 694, 695, 696
Workshop: 594, 595, 596, 682, 683, 684, 685
Thesis/Final Project: 690, 691, 692, 790, 791, 792
A graduate program of study may not include more than 12 hours of special topics, independent study, seminar and workshop courses, in combination, and no more than nine hours of 400 -level courses.

## Attendance

Students who find it necessary to be absent from classes in order to observe major religious holidays may arrange with their instructors to make up missed work, including examinations. If satisfactory arrangements cannot be made with the instructor, students may appeal to the department head.

Expectations regarding class attendance should be included in the printed syllabus distributed by the instructor at the beginning of the semester.

Withdrawal
Graduate students are expected to follow University policy and procedures for withdrawal, both from individual classes and from the University. Nonattendance andlor nonpayment of tuition do not constitute withdrawal or absolve a student of academic or financial responsibility.

## Withdrawal from Individual Classes-Fall/Winter Semesters

a) First Eight Days. Any change in the student's program occurring during this period. Such changes are not recorded on the student's permanent record.
b) Ninth Day Through Tenth Week. All student-initiated withdrawals are accepted automatically and recorded as W. Withdrawals initiated during this period will not result in tuition adjustment or reimbursement.
c) After the Tenth Week, Until the Beginning of the Final Exam Period. Students must initiate a withdrawal request at the Graduate School. A W may be granted only if the student shows documentation for inability to complete the course (e.g., illness, family concerns, employment problems). Poor academic performance is not a valid reason for withdrawal and such requests will be denied.

Students considering withdrawal should consult with their instructor(s) and should not stop attending class before receiving official notification that their withdrawal has been approved. If a student stops attending class without officially withdrawing and does not take the final examination, University policy requires that the instructor assign a grade of E for the course. Students who believe they have received an unearned E grade and who wish to appeal must do so during the following semester; no later appeals will be heard.

International students holding F-1 or J-1 visas must also seek withdrawal approval from the Office of International Students. Students who are on financial aid or who hold a scholarship, fellowship or graduate assistantship should consult the Graduate School before withdrawing from courses in order to fully understand the potential financial impact.

Policies governing the refund of tuition and fees are to be found in the Tuition and Fees section of this catalog. The class schedule book should be consulted for the calendar regulating withdrawals.

## Withdrawal from All Classes

Students may withdraw from all classes (withdraw from the University) before the first day of exams and receive a grade of W for all courses. This transaction is handled by the Office of Records and Registration. Such withdrawal may necessitate the updating of a student's admission status, and students in their first semester must notify their academic department and the Office of Admissions before re-enrolling.

## Course Numbering System

400-500: for advanced undergraduates and graduate students. Graduate students must obtain Graduate School approval before enrolling in a 400 -level course. To earn graduate credit for a 400 -level course, the student must do work at the graduate level. The 500 -level courses are open to advanced undergraduates; see Enrollment in Graduate Courses by Advanced Undergraduates. 600: for graduate students only.
700 and above: for advanced-level graduate degree students.

## Grading System

| Grade | Significance | per credit hour |
| :--- | :--- | :---: |
| A | Exceptionally high order | 4.0 |
| A- |  | 3.7 |
| B+ | 3.3 |  |
| B | Distinctly above the average | 3.0 |
| B- |  | 2.7 |
| C+ | 2.3 |  |
| C | Average | 2.0 |
| C- |  | 1.7 |
| D+ | Below average | 1.3 |
| D |  | 1.0 |
| D- |  | 0.7 |
| E | Unsatisfactory (denoting failure) | 0.0 |

Note: Graduate students with a grade below a C-is considered an E grade.
Student academic records are kept on permanent file in the Office of Records and Registration. Transcripts may be ordered through the Cashier's Office.

## Credit/No Credit

The Graduate School awards credit/no credit only in theses, practicums, selected fieldwork, selected independent-study courses and special cases such as exhibitions in art. It is not a student's prerogative to elect a course for credit/no credit; only previously designated courses are available for such credit. To receive credit for a credit/no credit course, a student must perform in a manner equivalent to B work in the judgment of the faculty supervising the student's work.

## Repeating Courses

In the case of repeated courses, the second grade replaces the first in the computation of the student's cumulative GPA. The first grade remains on the record and is part of the term GPA, however. A course may be repeated only once and only if a grade less than B was received.

## "I" (Incomplete) Grades

An "I" grade may be awarded when illness or other unavoidable extenuating circumstances prevent completion of a course, provided that academic performance for the completed portion of the course ( $50 \%$ or more) merits a grade of B or better. The instructor will provide the student and the department head with a rationale for the "I" grade and will specify the work required to remove the incomplete.

Unless an extension is granted, an I grade must be removed within 12 months. The 12 -month limit may be extended only under unusual circumstances upon the written recommendation of the instructor and with the approval of the Graduate School. The initiative for conversion of an "I" to a letter grade rests with the student. No extensions will be granted after three years, after which time the "I" becomes a permanent part of the student's academic record. Permanent "I" grades may be removed by repeating the course under the policy on repeating courses.

Incompletes received in thesis, dissertation or capstone courses are not governed by these regulations.

## Grade Changes

When a letter grade (excluding I for incomplete grade or IP for in progress grade) is posted to a student's permanent record (either electronic or hard copy), it will be considered final unless an error was made in assigning the grade. Permitting a student to submit missing work or extra credit to improve a grade after the grade has been posted is not acceptable.

If an instructor error is identified, the instructor must file a grade change form, explaining the error. This form requires the approval of the department head. The appropriate dean will review and approve grade changes to ensure consistency with academic policies. All changes in letter grades (except from an I or IP grade) will require the signature of the dean of the college. The grade change is then submitted to and processed by personnel in the Office of Records and Registration. One year after the end of the relevant semester all grade changes from I or IP will require the permission of the dean of the Graduate School.

It is the responsibility of the student to call the instructor's attention to a possible grading error in a timely manner, but not more than 12 months after the questionable grade is posted. Three years following the close of any term of enrollment, the student's transcript will be considered to be the final indisputable record of academic achievement. Specifically, at the end of three years, grades are considered final: and no changes will be made to transcripts (e.g., no term or individual withdrawals, no grade omissions, no recalculated grades based on mathematical or clerical error, no incomplete removals, etc.). This rule does not apply to master's specialist and doctoral field-based research, internships, thesis and dissertation hours.

## Academic Load

Eight hours of graduate credit for the fall or winter semester and six hours for the spring or summer session is the standard full-time load. International students enrolled in less than 8 credit hours fall and winter semesters must have a "Reduced Load" form processed through the Office of International Students. This may only be used once during a graduate program unless a graduate assistant.

Graduate students may not enroll in more than 15 hours for fall/ winter or nine hours spring/summer without prior permission from the Graduate School. Students should complete a petition cosigned by their faculty advisers. If students seeking a professional teaching certificate or an
additional endorsement need to take more than the maximum allowable number of credit hours, they may do so by contacting the Office of Records and Registration, 303 Pierce Hall.

Students with fall and/or winter graduate assistantships must enroll in at least six graduate hours per semester. During spring and summer sessions, graduate assistants must enroll in at least one hour in either session to maintain the assistantship.

By federal regulation, students must be enrolled in four hours per semester to be considered half-time. For Title IV programs, veterans' benefits, and loan deferments, the following requirements must be met:

## Fall and winter semesters - maximum load: 12-13 hours per semester <br> - full-time student: 8 hours per semester <br> - half-time student: 4 hours per semester <br> Spring and summer sessions <br> - maximum load: 8 hours per session <br> - full-time student: 4 hours per session <br> - half-time student: 2 hours per session

## Residency Requirement

Although the Graduate School does not require a specific period of campus residency, it nevertheless supports the efforts of graduate programs to create a cohesive intellectual community.

Note, however, that some EMU graduate programs do enforce a residency requirement even if the Graduate School does not. Students should check with their advisers and program descriptions to determine specific expectations and requirements. These may vary from one program to the next and may include attendance at guest lectures or conferences, or even specific periods of enrollment on the main campus.

## Time Limitations

Students have seven years to complete the requirements for the doctoral degree from the date of first enrollment at EMU (see the section on doctoral programs). Specialist's degree requirements must be completed within six years if entering with a master's degree or eight years if entering with a bachelor's degree. Master's degree requirements must be completed within six years of first enrollment. Graduate and advanced graduate certificate requirements must be completed within three years of first enrollment.

## Validation of Credit

Credit that is older than six years but less than 10 years old may be counted toward graduation requirements only if it is validated by the student's department. Students may validate up to nine hours of out-of-date credit for use on a degree program by taking an examination covering course content. Such validation is contingent on relevant program requirements, adviser recommendation and Graduate School approval. Forms to request such credit by examination are available in the Office of Records and Registration and the Graduate School, and must be approved by the instructor, department head and adviser before making payment of the fee in the Cashier's Office. Complete requirements are listed on the back of the form.

Files of enrolled students are retained for seven years from the time of last attendance. After that time, only the Eastern Michigan University transcript (permanent record card) is retained. Course work taken during and after winter 1995 is kept in electronic format only.

## Transfer of Credit to Degree Programs

Applicable graduate course credit may be accepted from other accredited graduate institutions to be included on a graduate degree program. The allowable maximum for transfer credit to a specialist's degree is six hours; 12 hours toward a master's degree; and nine hours for a graduate or advanced graduate certificate. For master of fine arts and doctoral programs, transfer credit will be determined by the department, subject to the approval of the department head and the Graduate School. Transfer credit must:
a) be applicable to the degree program;
b) have a grade of B or higher (grades of "pass" or "credit" cannot be transferred);
c) not be out-of-date;
d) be recommended by the adviser and approved by the Graduate

School; and
e) be documented as graduate credit on an official graduate transcript from an accredited institution

Some departments have a more restrictive transfer-credit policy; refer to program information in this catalog for details.

Up to six hours of appropriate credit from a previous master's degree may be applied to a new degree if the new degree is in a discipline different from the previous master's degree.

Transfer credit is evaluated prior to the graduation degree audit. Official transcripts for courses planned to be transferred to Eastern Michigan University should be on file in the Office of Records and Registration at least one month prior to the end of the semester in which the student plans to graduate. Such credits are recorded on the student's record at the time of approval.

Credit earned while on non-degree status does not automatically apply to a degree program. Acceptance depends upon admission to a degree program and the recommendation of the adviser. Courses are listed on the program of study. Students must complete a minimum of 10 hours after admission to the degree program from which they intend to graduate.

Transfer credit request forms are available in the Office of Records and Registration and the Graduate School or its Web site.

## Academic Probation and Dismissal

Students are placed on academic probation at the end of any semester in which their cumulative EMU grade point average in courses taken for graduate credit is below 3.0. Students must complete six graduate hours at EMU before being subject to academic probation. Students are notified in writing each semester of their status, and enrollment is only permitted on a semester-by-semester basis until the probation is removed. Probationary students who do not return to good standing by the end of the next two enrollment periods (spring and summer sessions equal one enrollment period) are dismissed from the University and are so notified in writing.

Students whose cumulative honor points are 15 or more below those required for a B in all completed graduate-level courses are subject to dismissal at any time. For instance, a student with 20 completed graduate hours must have 60 honor points to maintain a B; if the student has less than 45 honor points, the student is subject to dismissal.

## Dismissal Appeals Process

After dismissal, students may appeal to the Graduate School for readmission by submitting a letter to the dean's office. This letter should state the cause(s) of the student's academic problems, changes in the student's situation that may rectify those problems and a proposed plan of action to ensure success in graduate studies.

Upon receipt of the letter, the Graduate School will initiate the appeals process with the Academic Dismissal Appeals Board of the Graduate Council. A review by the board may not be considered for dismissed students whose GPA is less than 2.0 unless extreme circumstances can be documented.

The Graduate School will notify the chair of the Academic Dismissal Appeals Board and a hearing will be held within 30 days of receipt of the student's letter. The appeals hearing will adhere to the following guidelines:
a) A detailed record shall be kept of the hearing, preferably a taped recording;
b) The student is allowed an adviser who will be a member of the University community (faculty, full-time staff or student);
c) The hearing shall be open unless the student requests a closed hearing;
d) The student may call witnesses and board members may question them; and
e) All deliberations of the board will be in executive session.

The Academic Dismissal Appeals Board consists of a chair and four members, who are selected by the Graduate School. All board members are also members of the Graduate Council; two board members are faculty; and two are student members of the Graduate Council. The chair does not have voting rights except in the case of a split decision.

An additional appeal will be considered only if new evidence is presented.

## Final Project/Graduation

## Final Project/Experience

Each graduate program has a different culminating or capstone experience required for graduation. Some require a thesis or dissertation; others require a special project or internship, while others require students to pass a final exam. Your graduate adviser will explain what you need to do to finish your program. See the Graduate School Web site for the Thesis and Dissertation Manuals, all forms, and information about research and human subject approval.

## Graduate Research Fair

Once nearing completion of a culminating or capstone experience, students are highly encouraged to share outcomes or findings with others on campus. The Graduate School and the Division of Academic Affairs annually sponsor a Graduate Research Fair in March to showcase student work. Many students use this forum to practice their oral or poster presentation skills before presenting at local, state or national conferences. It's very exciting to see the variety and breadth of work completed by EMU graduate students. Nomination forms to participate in the event are due to department heads in January. Students graduating in December are encouraged to return and share their research along with those who anticipate program completion in April, June or August.

## Graduation Requirements

It is the student's responsibility to see that all requirements for graduation have been met. Candidates for graduation must submit an application, available in the Office of Records and Registration, on the Graduate School's Web site, and in the class schedule book, on or before the deadlines listed in the class schedule book each semester. Deadlines are generally within the first two weeks of the semester (earlier in spring/summer sessions). A non-refundable fee ( $\$ 90$ ) is due with the application and must be submitted to the Cashier's Office. Students who file for graduation but fail to complete their degree requirements in a timely manner, must notify the Office of Records and Registration in writing and submit a new graduation application for a subsequent semester (no additional fee is required).

Failure to apply for graduation will result in a delay in graduation date (receipt of the degree).

Students should expect to receive their degree-verification letter within three to four weeks after the close of the semester in which their degree is conferred. Diplomas and a transcript are mailed approximately eight to 10 weeks after the close of the semester in which the degree is conferred.

Students must maintain a 3.0 cumulative GPA in all graduate-level courses taken at EMU and in their program of study to remain in good academic standing and be eligible for graduation. Master's-level students do not need to be registered for classes during the semester of graduation.

## Commencement

Once an application for graduation has been processed, the Office of Records and Registration will send information about commencement tickets, event logistics and details for ordering cap and gown. If course work is finished during the spring or summer terms, one's name will appear in the December commencement program and one may return to participate in the event. Students may request to participate in the April ceremony only if they have six or fewer hours to be completed in spring and summer (including any I grades). If permission is granted, the Office of Records and Registration will send commencement information. Names will not be in the program but students can walk across the stage and celebrate with family and friends.

Done with one graduate program, on to another one?
Many EMU graduate students return to complete a second master's degree, a certificate program, a specialist degree program or a doctoral program. Once a degree is conferred, the student number becomes inactive. A new admissions application, another fee, new personal statement and any other admission materials the new program may require must be submitted. Once an application has been reviewed by the new department and has been processed by the Office of Admissions, the old student number will be activated and course registration begins the cycle anew.

See the Graduate School Web site for other helpful links.

## Information and Communications Technology

To learn more about all the technology services provided for students, faculty and staff, please visit the ICT Web site at http://ict.emich.edu.

## Computers on Campus <br> Lab locations:

Morell D. Boone Computing Commons
G07 Bruce T. Halle Library
Phone: 734.487.2121
Multimedia Commons
Bruce T. Halle Library, first floor
Phone: 734.487.2687
McKenny Computing Lab
28 McKenny Union
Phone: 734.487.1365
Owen Computing Lab
101 Owen Building
Phone: 734.487.2241
Some of the colleges and departments have specialty labs available for different uses. Your professor will tell you about using these specialty labs. If you would like to know more visit the Web site of you specific college or department.

## ICT Computer Help Desk <br> Help Desk location:

ICT Computer Help Desk
106 Halle Library
734.487.2120

Web site: http://ict.emich.edu
The ICT Computer Help Desk can assist you with problems accessing EMU's Internet-based resources such as my.emich or the residence hall network (ResNet). Please check the ICT Help Desk Web site for more information on protecting your computer from viruses and other malicious programs.

## my.emich Portal Account

my.emich is Eastern Michigan University's personal portal. It is an official form of communication with EMU. This secure site provides students, faculty and staff with world-class intranet and Internet services including a 20 MB e-mail account and calendar. It is where you can check e-mail, access EMU's Web, register for classes, check your grades and pay tuition through e-Bill. For complete information on setting up your account, please visit the my.emich Web site: http://my.emich.edu and single click on "How Do I... Get my user name and password."

## EMU Computer Store

Computer Store location:
EMU Computer Store
Go8 Halle Library
734.487.2400

Web site: http://ict.emich.edu
Eastern Michigan University's Computer Store is the location for students, faculty and staff to purchase computers, software and related products at an educational discount. The ICT Computer Store Web site provides information on hardware, software, special promotions and details about the computer refresh program.

## ResNet

ResNet is Eastern Michigan University's residence hall network service. ResNet uses dedicated Ethernet wiring to connect students to the University network and the Internet, and works much like DSL or cable modem. Service is provided free of charge to students living in University Housing residence halls.

Advantages of ResNet: ResNet is convenient, it requires no modem or phone line to connect; ResNet is fast; and ResNet is a $10 \mathrm{Mbit} / \mathrm{sec}$ Ethernet network.

To sign up for ResNet, you need to plug in and then go through the simple registration process. For more detailed information about ResNet, visit the ICT Web site at http://ict.emich.edu.

## Wireless Networking

Wireless networking is available to students, faculty and staff in select locations on campus. Wireless networking allows those with a wireless compatible laptop computer, and a my.emich user name and password, the ability to connect to the campus network without being "plugged in." For more details about the EMU Wireless network and responses to frequently asked questions, please visit the ICT Web site at http://ict.emich.edu.

## University Library

## Bruce T. Halle Library

Rachel J. Cheng, University librarian
Scott P. Muir, associate University librarian
Bruce T. Halle Library
955 West Circle Drive
Telephone: 734.487.0020 ext. 2200
Fax: 734.484.1151
www.emich.edu/halle
The Bruce T. Halle Library supports the academic mission of the University through its state-of-the-art services, collections, technologies, facilities and equipment.

The library is essential to the instructional programs of the University. It houses more than one million items including books, serial subscriptions, microforms, audio visual materials and U.S. government documents. The library actively develops and maintains a rapidly growing collection of state-of-the-art electronic indexes and full-text resources. The extent and variety of the library collections provide strong support for the educational mission of the University. More information about the library's collections, hours and services is available at www.emich.edu/halle.

Features of the Halle Library include a centralized reference collection, enhanced electronic services, a 100 -seat auditorium, a totally automated Voyager online public access catalog system with links to full-text materials, the Internet, and an expanding variety of electronic services and databases. Additional features include collaborative study rooms, the Newspaper Room, the Carillon Room, a Circulation Desk to circulate materials, distance learning and electronic learning laboratories, teleconferencing facilities, the Paradox Café, photocopying services, reserved reading materials assigned for use in course work (located at the Circulation Desk), and a computer store offering discounted computers and software to EMU staff and students. Located in the atrium, the Information/Reference Desk is staffed by librarians who are prepared to assist clients in using the collections and locating sources.

Librarians offer a comprehensive range of orientation, reference, and instructional services and are available to consult with users concerning their information needs, and to assist in developing search strategies and accessing resources. Subject-specialist librarians assist teaching faculty by working with them to design tours and instructional sessions for their classes. This progressively designed instruction in locating and using information resources prepares students for lifelong learning after their formal education is completed. Appointments can be scheduled with individual librarians through the Information Services Office (734.487.0020 ext. 2100).

For off-campus class students, the library offers reference assistance and instruction, access to research tools and access to materials. For more information, visit www.emich.edu/halle/offcampusclasses/.

The national LOEX Library Instruction Clearinghouse was established almost 30 years ago at Eastern Michigan University and currently provides services such as collecting and sharing data and materials to more than 2,000 academic libraries in the United States.

The Welcome Center at the Halle Library is a unit that is designed to be an inviting and friendly first stop introduction to the leading-edge Bruce T. Halle Library. Tours for the public and community as well as personalized tours are coordinated by the Welcome Center.

## Campus Services

## McKenny Union and Campus Life

11 McKenny Union
Phone: 734.487.3045
Fax: 734.480.1927
E-mail: campus.life@emich.edu
www.emich.edu/campuslife
The Department of McKenny Union and Campus Life offers many rich opportunities for students, faculty and staff to engage in the life of the campus, to connect in communities with people who share similar interests or goals, and to establish and nurture a sense of belonging at EMU. The department includes EMU's student union and meeting center - McKenny Union, which features meeting and lounge space; retail and dining operations, and a number of student services. In addition, the department also provides a diverse array of co-curricular programs, where students learn about themselves and others; develop academic, social, personal and professional skills; and foster lifelong friendships.

## McKenny Union and Campus Life Programs

## Student Organizations and Greek Life

Provides programs, services, resources and advocacy to assist student organizations and fraternities and sororities to function effectively and to contribute positively to the EMU community.

## New Student Programs

Fusion Orientation and the First-Year Mentor Program offer programs, services and resources assisting new freshmen and transfer students transition positively to EMU.

## Arts and Entertainment Programs

Presenting a diverse array of excursions, lectures, performing arts, and film programs for the campus and community.

## Community Service and Leadership Programs

The VISION volunteerism office provides students with civic engagement and community service opportunities in the community through Alternative Spring and Winter Breaks, America Reads, Best Buddies, civic engagement activities, GREEN, Habitat for Humanity, JumpStart, Kid Konnection and Students Against Hunger and Homelessness.

Leadership development programs such as EMU LeaderShape, the Ambassadors at EMU and leadership excursions provide students with opportunities to enhance their personal and professional skills.

## Diversity Programs

(located on the second floor of King Hall, 734.487.3118)

## Center for Multicultural Affairs

Provides programs, services and advocacy that reflect the heritage of African-American, Latino, Native American and Asian students.

## Women's Center

Provides programs, services and advocacy to assist women in reaching their full potential.

## Lesbian, Gay, Bisexual and Transgender Resource Center

 Provides programs, services and advocacy addressing the needs of students, faculty and staff related to sexual orientation and identity.
## Commuter Services and Union Programs

Located on the main floor of McKenny Union, Commuter Central provides quality programs and services to the commuter student population at Eastern Michigan University. Staffed by a team of trained and talented commuter advisers, Commuter Central offers commuter-friendly programs, including Commuter Orientation and Commuter Appreciation Week, and provides information and resources to connect commuter students to Eastern.

A variety of year-round Union programs, including the popular Study All Nights, Midnight Snack and Study, dance workshops, coffee houses, poetry slams and midday programs highlight McKenny Union as the "campus living room."

## Student Union Services

McKenny Union is a barrier-free facility that offers 13 meeting rooms from an elegant 4,300-square-foot ballroom to the informal Huron Room, complete with a fireplace. The Union is an excellent location for organizational meetings, lectures, banquets, wedding receptions or social gatherings. The Event Planning Office, located in 212 McKenny, is open Monday through Friday 8 a.m. to 5 p.m. to schedule meetings/events and for catering sales. The building also houses:

- Dining operations: Wendy's, Taco Bell, Pumpernickel's Deli, Club Cappuccino, and It's a Toss Up
- Retail: the Lobby Shop, a convenience store; two ATMs; EMU Barnes and Noble bookstore and gift shop; and Mailboxes, Etc.
- Student Gallery: the student-run Intermedia Gallery
- Commuter Central, providing services, advocacy and programs for commuter students, and staffed by a team of trained and talented commuter advisers
- Information Center, offering assistance, directions and information to campus guests
- Eagle Card Office for student ID cards
- Service EMU, a one-stop service center for enrollment, financial aid, billing and payments
- Computer lab
- Student Organization Center housing Student Government offices as well as office and meeting space and resources for student organizations.
- Lockers, leased by the semester
- TV Lounge

For more information on the services and programs offered at McKenny Union and Campus Life, check out our Web site at www.emich.edu/ campuslife, call us at 734.487.3045, or e-mail campus.life@emich.edu.

## Career Services Center

J. Michael Erwin, director

311 King Hall
734.487.0400

Fax:734.487.0940
E-mail: mike.erwin@emich.edu
http://career.emich.edu

## Satellite Offices:

College of Business
210 Owen Building
734.487.4099

College of Education
206 Porter
734.487.7120, ext. 2540

College of Health and Human Services
206 Marshall Building
734.487.1417

The Career Services Center (CSC) helps students plan their careers, develop job search skills, obtain career-related work experience during their academic career and secure a job upon graduation. Programs and services include student employment, cooperative education, job fairs, résumé referral and on-campus recruiting. In the area of career planning, CSC provides personality, interest and values inventories, computerized career guidance services and personal career counseling. In addition, the Career Resources area ( 319 King Hall) contains an assortment of reference materials on career opportunities, self-assessment, employer literature and many other career-related items. These services are available at CSC's main office in King Hall with a more limited range of services at satellite locations.

CSC focuses on helping students select majors and occupational fields early in their academic careers. Assistance is provided through selfassessment, information about occupations and opportunities to secure employment and volunteer experience in career-related fields. Through its nationally recognized Professional Experience Programs (PEP), CSC assists students in obtaining such career-related work experiences as internships and cooperative education placements. These experiences help students gain exposure to their chosen career fields and gain the hands-on work experience that most employers now expect from college graduates. Academic credit can be earned for many of the PEP jobs. Students should begin participation in PEP as early as their freshmen year.

Additional job opportunities are offered through CSC's student employment area. This is the central clearinghouse for all on-campus job openings for students as well as for job openings near campus and in surrounding communities. CSC also maintains an extensive listing of summer employment jobs available with camps, parks, resorts, businesses and government agencies throughout the country. As with other student employment positions, these jobs give students practical work experience and a chance to earn money toward college expenses. The Career Services Center also assists seniors, graduate students and alumni in seeking employment after graduation and obtaining professional advancement throughout their careers.

Available services include:

- Résumé, interviewing and job search strategy workshops
- Job Choices manual available to all seniors
- eCampusRecruiter.com/emich online posting service
- On-campus recruiting interview program
- Résumé referral program
- Three large annual job fairs that attract hundreds of employers plus several other smaller fairs
- Free drop-off résumé critiquing service

Finally, each year CSC posts more than 30,000 job listings and has more than 250 employers who participate in the on-campus interview program.

## University Student Identification Card

Eagle Card Office
21 McKenny Union
Phone: 734.487 .3176
Web site: http://ict.emich.edu/eagleonecard
A valid Eastern Michigan University identification card is required for many services on campus including the use of special facilities. To obtain a University identification card, students must be registered for at least one class for the current or upcoming semester. You will need one piece of valid picture identification and a copy of your class schedule. Visit the Eagle Card Office Web site for office hours and updated information.

## Ombudsman

Gregory A. Peoples
112 Welch Hall
Phone: 734.487 .0074
Fax: 734.487.7170
E-mail: gregory.peoples@emich.edu
http://emich.edu/ombuds

The ombudsman, serving on behalf of the Division of Student Affairs, facilitates the resolution of individual complaints which do not have a formal avenue of redress through official University channels. The ombudsman advises students on University policy and procedures, identifies and recommends changes to current practices, and communicates student concerns/ issues to appropriate University officials. In addition, the ombudsman presents workshops, conducts needs assessments and mediates disputes.

In the event of an emergency, the ombudsman is the main contact between the student, the student's family and the University. When a student emergency exists, the ombudsman has the responsibility for notifying the student's instructors, and for contacting family members and other appropriate personnel.

## Access Services Office

Donald J. Anderson, director<br>www.emich.edu/public/students/disab<br>203 King Hall<br>734.487.2470 Telephone and TTY

Students with physical, learning or psychological disabilities, sensory impairments and chronic health conditions must register with the Access Services Office (ASO) in order to receive accommodations. Typical accommodations include extended time for examinations, the ability to take examinations in a distraction free environment, access to adaptive technology, sign language interpreters, books on tape and note takers. However all accommodations are determined on a case-by-case basis according to each student's documented limitations. The ASO also works closely with faculty members and other University departments, such as Housing and Campus Life, to ensure that students with disabilities receive the accommodations they need to participate in all university programs, services, and activities. All disability information is strictly confidential and students are encouraged to contact the ASO to discuss their individual needs.

## Office of International Students

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Paul Dean Webb, director
229 King Hall
734.487.3116
www.dsa.emich.edu/ois
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The Office of International Students extends a welcome to all international students pursuing educational goals at Eastern Michigan University. Concerned, responsible and professional staff is available to assist students in any matter, including orientation, advice on immigration issues, academic, financial, employment and personal concerns. The staff also provides the preparation of documents needed to maintain favorable status in this country.

This office serves as a consultant to faculty and staff on international student affairs and acts as a catalyst for the development of various international connections in the University and/or community to promote international education and understanding and initiates enhancement programs such as cross-cultural activities on and off-campus.

International students are encouraged to make regular contact with the office.

## Student Government

Governed by the President (elected each spring)
www.emich.edu/studentgov
011 McKenny Union
734.487.1470

Student Government at EMU is committed to improving the quality of student life on campus. The student body each spring elects a president, vice president and 21 senators who, along with representatives appointed from various organizations, compose the Student Senate. The executive officers and members provide input to the administration of the University to help solve problems and improve programs and services. Student Government also sponsors campus-wide events. The student services office, known as REACT, provides assistance to students with legal, rental or Universityrelated problems.

Not only do student representatives get valuable experience in the process of government, but they also represent the University on local, state and national levels. Any EMU student may run for a Student Government position. Interested students are also welcome to serve on Student Government committees and University advisory groups.

## Veteran Services Office

Dwight Conerway
18 Roosevelt Hall
734.487.1020
www.emich.edu/veterans
The Veteran Services Office (VSO) coordinates all campus services for veterans who are pursuing their education at EMU. It is the resource center for veterans' benefits; veterans must report successful academic progress, class drops and adds, and/or relevant changes in personal status to the VSO in order to maintain benefits.

The office assists veterans in housing, financial aid and works closely with disabled veterans to provide full educational benefits. Veterans should direct all questions to a representative of this office.

## Children's Institute

Rackham Building
Phone: 734.487.1126, 734.487.2348, 734.487.2426
Fax: 734.487.0286
Hours: Monday - Friday, 7:30 a.m. to 5:30 p.m.
Web site: www.emich.edu/uhs
The EMU Children's Institute offers high quality early childhood education programming to families of Eastern Michigan University and surrounding communities. We offer varied programs designed to meet the needs of students and working families.

The Institute provides high-quality care and education for children ages 18 months through six years. Full and half-day programs are available for toddlers, preschoolers, and kindergartners. A special arrangement with the Ypsilanti Public School System provides transportation to and from Perry Child Development Center for the morning kindergarten program. We also offer a full-day kindergarten program at the Children's Institute.

The EMU Children's Institute serves as the practicum placement site for students preparing to be early childhood education teachers. Practicum students are closely supervised by professional classroom teachers and University faculty members.

Flights of Imagination, the summer day camp program at the Children's Institute, offers exciting and varied programs for children entering kindergarten through first grade, supervised by professional teaching staff, with EMU students as camp counselors. Camp is offered as eight weekly sessions.

Activities at the Children's Institute are play based and developmentally appropriate, and designed to meet the needs of each child in the group. Teaching staff have completed coursework and hold degrees/advanced professional degrees in early childhood education. Staff training and in-service days are conducted throughout the year.

## Counseling Services

313 Snow Health Centers
Hours: Monday - Friday, 8 a.m. to 5 p.m.
Phone: 734.487.1118
Fax: 734.481.0050
Web site: www.emich.edu/uhs
Counseling services provides:

- Free, confidential, personal counseling for EMU students
- Informative, interactive workshops and presentations in classrooms and other locations on topics including managing depression, resolving communication and relationship problems, building self esteem, addressing anger and test anxiety among others
- Crisis response and support
- Screening for depression and other concerns
- Consultation with faculty and staff about student and classroom issues
- Self help lending library, audio and video tapes for information and skill building

Professional, licensed psychologists and counselors provide services. Graduate students completing internships also provide services under professional staff supervision.

All registered EMU students are eligible for services. Appointments can be made by phone or in person. Counseling is confidential and at no cost to students.

## Snow Health Center

Phone: 734.487.1122
Fax: 734.487.2342
www.emich.edu/uhs
Hours: Monday-Friday, 8 a.m. to 5 p.m. The center is closed during official University closings. Appointments are preferred, but walk-ins are welcome.

The basic services provided at Snow Health Center are:

- Physical exams
- Minor illness and injury treatment
- Women's health including annual exams, diagnosis and treatment for infections, pregnancy testing
- STI testing and treatment
- Allergy shots, immunizations, TB tests, flu shots, meningitis shots
- Blood pressure checks
- Laboratory
- X-ray
- Pharmacy - full line of prescription medications and over-the-counter items
- Sports medicine clinic
- Psychiatric services

If an outside physician orders lab work or an x-ray, Health Services staff can perform the service. The pharmacy can fill prescriptions written by a licensed physician within Michigan as well as most out-of-state prescriptions, and is a participating provider with several major insurance carriers. The pharmacy accepts several insurance plans. Please call them directly at 734.487.1125 with questions.

Both full and part-time physicians and nurse practitioners staff Snow Health Center. Our physician team includes a staff physician along with physicians and physician-supervised residents from nearby St. Joseph Mercy Hospital.

The EMU Student Health Insurance policy, sponsored by Student Government, is accepted in full for covered services after co-pays are met. Insurance information is available at Snow Health Center and on the Web site at www.emich.edu/uhs.

All currently enrolled EMU students, faculty and staff and their spouses are eligible for medical services.

Students are eligible to utilize University Health Services up to six months past their last enrollment date at non-student rates.

## Health Education and Wellness Programs

Snow Health Center, top floor
Phone: 734.487.2226
Fax: 734.481.0050
Web site: www.emich.edu/uhs
Health Education provides comprehensive health and wellness services and programs aimed toward the enhancement of academic achievement and the promotion of healthy lifestyles. Some of the services include:

- Alcohol, tobacco and other drug education
- Alcohol and other drug assessments
- Checkpoint program
- HIV antibody counseling and testing
- Health Resource Library
- Classroom and workshop presentations
- CloseUp Theatre Troupe
- Smoking cessation resources
- Violence Prevention Program (PHAVE)
- Blood drives
- CPR/First Aid certification

The Employee Wellness Program provides programs and services designed to address six dimensions of wellness: physical, social, emotional, spiritual, environmental and intellectual. The overall goals of the program are to positively influence changes in health-seeking behaviors, lifestyles, stress-
linked work styles and physical activity. Some of the services include:

- Health risk assessment
- Wellness Walkers
- Lunch and Learn workshops
- Wellness Fairs
- Wellness Champions
- Smoking cessation resources
- CPR/First Aid certification
- Blood drives
- Wellness newsletter


## Campus Living

## Housing

Rebecca Figura, director
Housing and Dining Services
Dining Commons ONE, lower level
Ypsilanti, MI 48197
Phone: 734.487.1300
Fax: 734.487.8513
Web site: www.emich.edu/housing/halls.php
E-mail: housing@emich.edu
Hours: 8:00 a.m. to 5:00 p.m., weekdays

## Residence Halls

Eastern Michigan University's residence system provides housing for more than 4,000 students, staff and faculty. Housing options include both traditional residence halls and apartments. Fourteen residence halls offer six room layouts to choose from. One can live in a double room, co-ed hall, or upperclass single hall. Features include laundry and kitchen facilities, TV and study lounges, cable television, local telephone service and recreational amenities. All halls feature reception desk services and in-room network connections for Internet and e-mail service. Residence hall staff provide educational and recreational programs and promote the safety and welfare of residents.

One can stop by one's hall front desk to pick up one's mail, make change or check out cleaning supplies, vacuums and recreational equipment.

The custodial and maintenance staff will repair any permanent fixtures in your room, such as the heat, plumbing or light fixtures, as well as clean hall corridors, lounge areas and community bathrooms.

Residence hall students also enjoy the convenience of having shuttle bus stops right in front of many halls. One can catch a ride around campus, head to the College of Business in downtown Ypsilanti or go shopping in nearby Ann Arbor.

To reserve a room, students must:

1. Obtain contract materials by downloading from our Web site at www.emich.edu/housing/halls.php;
2. Read the contract carefully and thoroughly. The contract contains important information one needs to know before reserving a room;
3. Select a meal plan; and
4. Select a residence hall program.
5. Students should then return the completed and signed contract along with the Residence Hall Assignment Request Form and a check for the $\$ 200$ prepayment to:

Cashiers Office<br>201 Pierce Hall<br>Eastern Michigan University<br>Ypsilanti, MI 48197

## Apartments on Campus

Eastern Michigan University offers traditional residence halls as well as apartment living options for students. Three apartment complexes are available to serve your housing needs. These include Brown/Munson, Cornell Courts and Westview apartments.

## Eligibility

Applicants must be:

- enrolled in 12 undergraduate credit hours or
- enrolled in six graduate credit hours or
- actively engaged in an internship, or writing a master's, specialist's, or doctoral thesis; and
- upperclass or non-traditional first year students


## Amenities

University apartments include:

- locations convenient to classes, the library, and athletic events;
- utilities included in rent (gas, electric, water and trash collection);
- basic cable service;
- laundry rooms in each building;
- storage facilities at some locations;
- community rooms for complex activities;
- leasing options
- Internet in Brown/Munson

Students must submit an application to be considered for an apartment. Applications are available from the apartment office and require a $\$ 55$ (U.S.) non-refundable processing fee.

Assignments are made by the leasing coordinator according to the date the application is received. Applicants are notified when their application has been approved and a unit is available for occupancy. Apartments are leased as they become available.

According to Eastern Michigan University policy, the maximum number of individuals allowed to live in a two-bedroom apartment is four (4). The maximum number of individuals in a one-bedroom unit is two (2): a married couple, two same sex individuals, or a single parent and one child.

Contact:
Eastern Michigan University
University Apartments Office
Dining Commons ONE, lower level
Ypsilanti, MI 48197
734.487.0445
www.emich.edu/housing/apartments

## Dining Services

Larry Gates, director
Dining Commons ONE, lower level
Ypsilanti, MI 48197
http://emich.edu/dining/
Phone: 734.487.0418
Fax: 734.487.8513
E-mail: lgates@emich.edu
One need not worry about getting bored eating the same food in the same place at EMU! There are more than 30 places to dine on campus (including
four convenience stores). All locations are open to EMU students, parents and staff and will accept cash, Eagle Meal Deals (for Commuters - Block Plan, Block Plus and FlexBuy E-Dollars), EagleOne Card (Eagle Express), E-dollars, Flex Meal Plan, meal transfer, debit/credit (Visa-Mastercard), University requisitions and gift cards.

- Dining Commons ONE: All-you-care-to-eat, self-serve food court, located in Dining Commons ONE (accessed through Downing Hall) 734.487.2442
- Eastern Eateries: High-tech fast food mall with 10 shops, featuring A\&W, Taco Bell Express, Jump Asian Cuisine and Freshens (national franchises). Offers all-you-care-to-eat Sunday buffets. Conveniently located between Walton-Putnam and Phelps-Sellers residence halls 734.487.0444
- CrossRoads MarketPlace: A unique grocery store/food court, which includes video rentals, greeting cards, deli and hot grill items. Located in Hoyt Conference Center. Features Einstein Bros. Bagels. 734.487.3066
- Pumpernickel's Deli: Made-to-order deli offering sandwiches, soups, breads and more. Located in McKenny Union 734.487.0417
- Taco Bell Express: Great tacos! Located in McKenny Union 734.487.3838
- It's A Toss-Up \& Company: Salads made-to-order, fresh baked pretzels, fruit smoothies, yogurts and shakes. Located in McKenny Union 734.487.0417
- Lobby Shop: Convenience store located on the main floor of McKenny Union. Offers fruit, pastries, bottled beverages, toiletries, snacks and gourmet items 734.487.2328
- QuickFixx: Convenience store offering more than 400 video rentals, groceries, film and film processing, greeting cards and snacks. Located in the lower level of Eastern Eateries 734.487.0122


## Satellite Operations*

- Courtside: Located in the Rec-IM 734.483.7573
- Flying Eagles: Located on the Northeast end of Pray-Harrold 734.487.6965
- TO BE Café: Located in Quirk-Sponberg Theatre 734.487.6699
- Café Crescendo: Located in Alexander Hall 734.487.8450
- Paradox Café é Commons: Located in the Halle Library 734.487.4550
- The Bottom Line: Located in the College of Business 734.487.5609
- Common Ground Café: Located in the Marshall Building 734.487.3412
- Food for Thought: Located in Sill Hall 734.487.6965


## Note:

*All satellite operations offer sandwiches, soups, salads, and pastries as well as other items (varies depending on the location).

You can choose from four convenient meal plans, including 20, 15, 13 or 10 meals per week. Best of all, you can use your meal plan card at most campus dining facilities.

## Flexible meal plans

- 20 meals: Breakfast, lunch, and dinner, Monday - Saturday with breakfast and dinner on Sunday
- 15 meals: Breakfast, lunch and dinner, Monday - Friday, no weekend meals and $\$ 25$ per semester on convenience account
- 13 meals: Choice of any two meals each day, Monday - Saturday, one meal on Sunday and $\$ 25$ per semester on convenience account
- 10 meals: Choice of any two meals each day, Monday - Friday, no weekend meals and $\$ 50$ per semester on convenience account
- Flex Meal Plans: Flex Meal Plans offer the expanded flexibility of allowing purchases at all Dining Services locations and convenience stores that currently accept the Eagle Card. This allows you to purchase products that meet your needs with the exception of tobacco products. Please call 734.487.0418 for pricing information

Hours may vary during holidays and scheduled semester breaks. Please contact each area for specific hours of operation.

Some dining services venues are open during unscheduled shutdowns, such as snow emergencies.

## Student Rights and Responsibilities

The Office of Student Judicial Services works to create an effective living and learning environment by designing policies such as the Student Code of Conduct, providing a disciplinary process and conducting programs that foster ethical development, personal accountability and civility toward others.

For information concerning student rights and responsibilities contact:
Jennifer M. Schrage, director
Office of Student Judicial Services
204 King Hall
www.emich.edu/sjs
Phone: 734.487.2157
Fax: 734.487.4376
E-mail: Jennifer.Schrage@emich.edu

## University Governance and Individuals' Rights

Eastern Michigan University is an autonomous University governed by an eight-member board of regents appointed by the governor of Michigan and subject to the approval of the Michigan Senate. Financial support for the University comes from student tuition and fees, and support provided by the citizens of Michigan.

Current members of the board of regents are Philip A. Incarnati, Fenton, chair; Karen Quinlan Valvo, Ypsilanti, vice chair; Joseph E. Antonini, Troy; Jan A. Brandon, Ann Arbor; Steven G. Gordon, Southfield; Thomas W. Sidlik, Ann Arbor; and Roy E. Wilbanks, Ypsilanti.

## Policies on Non-Discrimination

Eastern Michigan University shall not discriminate against any person because of race, color, creed, religion, national origin, gender, age, disability or sexual orientation. Further, the University shall work for the elimination of improper discrimination in the areas listed above in (1) organizations recognized by the University and (2) from non-University sources where students and employees of the University are involved.

## Equal Opportunity and Affirmative Action Policies

Eastern Michigan University admits students of either sex, and any race, color, or national or ethnic origin to all the rights, privileges, programs and activities accorded to students at this University. The University does not discriminate against students on the basis of sex, race, color or national or ethnic origin in the administration of its educational policies, admissions policies, scholarships and loan programs and athletic and other Universityadministered programs. Further, it is the policy and practice of Eastern Michigan University to take affirmative action in all personnel matters.

## Gender Equality

It is the policy of Eastern Michigan University to comply with Title IX of the Education Amendments of 1972 and its regulations, which prohibit discrimination on the basis of sex. Anyone who believes that in some respect Eastern Michigan University is not in compliance with Title IX and its regulations should contact the executive director of Human Resources.

## Non-Discrimination of the Disabled and/or Challenged

In its programs, activities and employment, Eastern Michigan University does not discriminate on the basis of physical or other disabilities. Anyone who believes that in some respect Eastern Michigan University is not in compliance with the Rehabilitation Act and its regulations should contact the executive director of Human Resources. Prospective students with disabilities who are otherwise qualified for admission are invited to apply. Students encountering difficulty with access to full participation in University activities should contact the dean of students.

## Statement on Campus Violence

In accordance with the education mission of Eastern Michigan University, the University adopts this policy statement to promote a safe campus environment. The statement reflects the nonviolent spirit of the relationship between students, staff, administrators, faculty, contractors and visitors at Eastern Michigan University.

The safety and security of our students, staff, administrators, faculty, contractors and visitors is extremely important to Eastern Michigan University. Threats, acts of aggression and threatening or violent behavior are not tolerated by or toward students, staff, administrators, faculty, contractors or visitors. All reports of incidents will be taken seriously and will be dealt with appropriately.

Threats can be direct and immediate or indirect and implied; threats can occur verbally, nonverbally or in writing. Acts of aggression include, but are not limited to, abusive behavior, stalking and tampering with property and are intended to intimidate, create fear, imply harm or destroy property. Threatening or violent behavior is behaving in such a way that poses an immediate threat to self or others by acts of physical harm.

All students, staff, administrators, faculty, contractors and visitors are strongly encouraged to report threats, acts of aggression, and threatening or violent behavior, to the Campus Police ( 911 for all emergencies, 734.487.1222 for all others), Human Resources (734.487.0083) and/or to your department head or supervisor, to help ensure the safety of our campus community.

## Family Education Rights and Privacy Act

In compliance with the Family Education Rights and Privacy Act (FERPA), Eastern Michigan University assures that any person who is or has been in attendance as a student at EMU has access to his/her educational records. Furthermore, such individual's rights to privacy are assured by limiting the transferability of records without the student's consent.

The following are matters of public record and may be included in directory publications or disclosed upon request without consent: the student's name, address, telephone listing, e-mail address, date and place of birth, major field of study, participation in recognized activities and sports, weight and height (if a member of an athletic team), dates of attendance, degree and awards received and most recent previous educational agency or institution. Registration documents of student organizations that contain the names and addresses of the officers and the statement of purpose of the organization also are considered public information. These documents are available in the Office of Campus Life Programs.

EMU reserves the right to make directory information public unless a student files a written request to withhold information with the University Communications Office within 14 days after the semester begins. Once such a request is filed, the information will remain private until the student requests the Office of Public Information to release it.

Individuals who believe the University is not in compliance with FERPA and its regulations should contact the executive director of Human Resources.

## Notification of Student Rights under FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day EMU receives a request for access.

Student should submit written requests to the EMU Office of Records and Registration, identifying the record(s) they wish to inspect. A University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading. Students should write the University official responsible for the record, clearly identify the part of the record they want changed and specify what is inaccurate or misleading.

If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable information contained in the student's education record, except to the extent that FERPA authorizes disclosure without consent.

One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by EMU in an administrative, supervisory, academic or research or support position (including law enforcement personnel and health staff); a person or company with whom EMU has contracted (such as an attorney, auditor or collection agent); a person serving on the Board of Regents; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

The University may also disclose, without the student's permission, to parents and legal guardians when the student is under 21, any violation of existing alcohol or drug laws or University policy.

EMU has designated the following items as directory information and these items may be included in publications or disclosed upon request without consent: the student's name; address; telephone listing; e-mail address; electronic-mail address; date and place of birth; major fields of study; class schedule; class roster; participation in recognized activities and sports; weight and height of members of athletic teams; dates of attendance; degrees and awards received; and the most recent previous educational agency or institution attended by the student.

EMU reserves the right to make directory information public unless a student's written objection (specifying the category of information not to be made public without prior consent) is filed at the University Communications Office within 14 days after each term begins.

Students who do not want to be included in the annual EMU Student Telephone Directory should complete a Directory Exclusion Card. Cards can be picked up from University Publications, Housing and Dining Services, Records and Registration and the Library Copy Center. They must be turned in by September 15 to the Library Copy Center or to University Publications. Completing the exclusion card will remove the student's name, address and phone number from the current and subsequent telephone directories.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by EMU to comply with requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education

600 Independence Avenue, SW
Washington, D.C. 20202-4605

## EXTENDED PROGRAMS

## Programs:

Continuing Education
Center for Organizational Risk Reduction
Center for Quality
Institute for the Study of Children, Families and
Communities
World College and Academic Programs Abroad Upward Bound

Associate Vice President for Extended Programs Mary Sue Marz
102 Boone Hall
www.ep.emich.edu
Phone: 734.487.0427
Fax: 734.487.2316
E-mail: extended.programs@emich.edu

## Mission Statement

It is the mission of Extended Programs to provide leadership in dissolving traditional campus boundaries through collaborative programs that complement and extend the educational, research and public service activities of the university - as understood in the context of our identity as a metropolitan and publicly engaged University. Extended programs also engages individuals across their life span, from high school, through traditional university years, to adult working years - through individual professional development and educational/training programs for business, government and nonprofit agencies. We work to extend the reach and impact of the University not only to the state of Michigan but globally - recognizing that our students live and work in the context of a closely interconnected world.

The most important asset of any institution, corporation or business is the people that make things happen. With advanced education and training, they become better positioned to meet the individual and collective challenges that lie ahead.

Eastern Michigan University Extended Programs is committed to helping meet these challenges. We offer flexible and innovative applied academic experiences in the state of Michigan, nationally and internationally.

Through Eastern's Extended Programs units, it is now possible for individual adult students, businesses, government and social agencies to access the tremendous resources of one of Michigan's leading universities. Using alternative formats and teaching technologies, we deliver education, applied research, training and consultation services. Ongoing research initiatives and collaborations ensure that our programs respond to changing needs in a changing environment.

## Continuing Education

Dawn Malone, assistant dean, Credit Programs<br>Dan Gaymer, assistant dean, Non-Credit Programs and Operations

Campus Address: 101 Boone Hall
Internet: www.ce.emich.edu
Telephone: 734.487.0407 or 800.777.3521
E-mail: continuing.education@emich.edu

Continuing Education offers flexible, innovative and exciting credit courses and program options. Courses offered through Continuing Education are available at times, locations and in formats that are convenient for students balancing a full- or part-time job, co-curricular activities and/or family responsibilities with their college education. Credit earned in Continuing Education courses and programs is regular University academic credit.

Each semester, Continuing Education publishes a course bulletin listing the courses available that semester. These bulletins are available at the Continuing Education Office in Boone Hall, online at www.ce.emich.edu and in display racks in various locations around the EMU campus. In addition, all CE course offerings are listed in the University's online class schedule at http://insight.emich.edu/Students/ocsb/index.cfm. Since some courses are scheduled after the CE course bulletin and the University class schedule are published, refer to the University's online class schedule for updates. As with all EMU courses, your academic adviser is the person best equipped to guide you and answer specific questions about which courses will meet the requirements of your program of study.

## Off-Campus Locations

Continuing Education offers full degree programs and certificates at convenient off-campus locations throughout Michigan. For a complete list of programs, contact the locations listed below or visit www.ce.emich.edu.

EMU-Brighton
2250 Genoa Business Park Drive, Suite 120
Brighton, MI 48114
810.225.0361

E-mail: brighton@emich.edu
EMU-Detroit
Northwest Activities Center
18100 Meyers
Detroit, MI 48253
313.342.2731

E-mail: detroit@emich.edu
EMU-Flint
1401 East Court Street, 1000 Mott Memorial Building
Mott Community College
Flint, MI 48503
810.762.0303

E-mail: flint@emich.edu

## EMU-Jackson

2111 Emmons Road, 147 McDivitt Hall
Jackson Community College
Jackson, MI 49201
517.787.7265

E-mail: jackson@emich.edu
EMU-Livonia
38777 W. Six Mile Road, Suite 400
Livonia, MI 48152
877.818.4368

E-mail: livonia@emich.edu

## EMU-Monroe

1555 S. Raisinville Road, Life Sciences Building L 112
Monroe County Community College
Monroe, MI 48161
734.384.6090

E-mail: monroe@emich.edu
EMU-Traverse City
NMC University Center
2200 Dendrinos Drive, Suite 220-N
Traverse City, MI 49684
877.368.8289

E-mail: traverse.city@emich.edu
Washtenaw County/Weekend University
Continuing Education
Eastern Michigan University
101 Boone Hall
Ypsilanti, MI 48197
734.487.0407

E-mail: continuing.education@emich.edu

## Distance Education

734.487.1081

E-mail: distance.education@emich.edu

## EMU-Online

When you're ready to learn, EMU is ready to teach. Online courses make it easy for you to learn: around your schedule, in a location convenient for you. A wide range of courses are available online as an alternative to attending class on campus. They've been developed by EMU faculty and meet the same high standards as on-campus offerings. The course offerings and registration information are available at www.emuonline.edu.

## Independent Learning

Satisfy general education requirements and earn college credits through selfpaced instructional courses via EMU 's Independent Learning program. You may register at any time, and you have up to six months to complete coursework. You'll receive instructional tapes, study guide and book lists to begin your lessons. Professors are available for consultation and to grade assignments that you send through regular mailer-mail or fax. There are proctored examinations for each course.

## Prior Learning Assessment

Receive up to 30 hours for learning you've gained outside the classroom including seminars, training completed on the job and knowledge acquired independently in a particular field. Through Prior Learning Assessment, you'll identify and analyze learning, document your experience, match the learning to EMU courses and compile a written portfolio to submit for evaluation. Credits earned through portfolio-assisted prior learning may be applied toward any degree for which they are appropriate. Students seeking credit for prior learning attend a free required workshop.

## One-Week Courses

EMU-Winter Break
800.777.3521

E-mail: winter.break@emich.edu
Earn credit during EMU's winter break by taking a one-week course offered in northern Michigan.

EMU-Traverse City
887.EMU.TCTY

E-mail: traverse.city@emich.edu
Earn credit during the spring and summer by taking a one-week course offered on the campus of Northwestern Michigan College in Traverse City.

## Noncredit Programs

734.487.4790

E-mail: non.credit@emich.edu
Continuing Education offers programs and services for professionals seeking ongoing educational opportunities; conferences, workshops and special events of interest to the EMU community; and support for area k-12 schools and districts. For a complete list of non-credit learning opportunities, visit www.ce.emich.edu.

## Professional Certificates, Training and CEUs

Professional societies and organizations develop programs and award certificates to encourage members to update their knowledge and skills. The CEU (Continuing Education Unit) is a national standard of measurement to recognize participation in a wide range of organized non-credit educational activities (conferences, seminars, workshops, etc.) in all fields. Opportunities for CEUs, certificates and training include:

- Michigan State Board - Continuing Education Units (SB-CEUs)
- Certificate in Information Security Systems
- SHRM Human Resource courses and certificates
- American Payroll Association courses
- Online test preparation workshops


## School Partnership Program

In order to develop win-win partnerships with schools and school districts, EMU offers services and programs emerging through customized collaboration between schools and school districts. Partnership opportunities include:

- Grant Evaluations and Administration
- Career Development Counseling and Planning matched to district's needs
- Credit classes (Consortiums, Onsite Partners and Online Programs)
- Customized EMU Task and Assessment Teams
- Data Collection Evaluation and Assistance
- Customized Contract Training


## SUMMERQUEST

SUMMERQUEST offers high school students the opportunity to explore University life on campus while they delve into an academic experience in one- and two-week programs in the early summer. For information on programs being offered, visit www.emich.edu/summerquest.

## Academic Programs Abroad

George Klein, director
103 Boone Hall
www.emich.edu/abroad
Phone: 734.487.2424 or 800.777.3541
Fax: 734.487.4377
E-mail: programs.abroad@emich.emu
In today's interconnected world, a global perspective is increasingly important and valuable for all students. The Office of Academic Programs Abroad provides opportunities for EMU students to internationalize, diversify and enrich their University education through a variety of study abroad programs, including winter break, spring and summer, intensive language immersion, and exchanges and other semester and academic year opportunities.

## Winter Break Programs

EMU students earn credit while studying abroad with EMU faculty during the break from campus classes midway through the winter semester. Recent programs include:

- Art in Mexico City
- Cultural Geography of Puerto Rico
- Hospitality Management in London
- Literature in London
- Power, Place and Image in Florence and Rome.


## Spring and Summer Programs

- The European Cultural History Tours are unique travel-study programs that visit more than 30 cities in 10 countries throughout Western Europe and the Mediterranean. Five and 10-week programs are offered. Students and professors study major historic and cultural sites while pursuing in-depth academic work in an interdisciplinary context. Since their beginnings in 1974, the European Cultural History Tours have become a leader in innovative travel-study abroad, drawing students from EMU as well as other colleges and universities. The Emanuel Fenz Endowed Fund provides a competitive scholarship available to EMU students with financial need, applicable to either the Cultural History Tours or Adventures Abroad programs.
- Adventures Abroad Programs are short-term, low-cost travel-study tours that offer EMU students the opportunity to travel with EMU faculty to Europe or the Mediterranean while earning three credits
in literature, art or another discipline. The Adventures Abroad program is a short-term module embedded within the longer Cultural History Tours. Students with financial need may apply for the Emanuel Fenz Scholarship applicable to this program.
- Other spring and summer programs: EMU students may choose from a variety of travel and residence programs that carry credit in such fields as art, biology, business, community practice, education, history and political science. EMU faculty-led programs include such destinations as: Ecuador and the Galàpagos Islands, Mexico and the Americas, Europe and Asia. Several spring and summer programs are three weeks or less and designed to be especially affordable for EMU students.


## Summer Intensive Language Programs

Intensive French, Spanish, German and Japanese language programs are available in France, Mexico, Austria and Japan respectively, in settings of cultural immersion. Faculty coordinate additional instruction and provide supervision and cultural exercises. All levels of instruction are available. These programs are offered in cooperation with the Department of Foreign Languages and Bilingual Studies.

## Semester/Year Exchange Programs

Eastern Michigan University students may attend one of our Exchange Partner schools for one or two semesters for a cost equivalent to that of Eastern Michigan University. Students pay for EMU tuition and fees, plus a modest program fee. The courses taken appear on the EMU transcript as EMU courses. Students may select courses to count towards a major, minor, general education or elective credit.

- United Kingdom Exchanges include: University of Derby, England; Oxford-Brookes University, England; University of Paisley, Scotland.
- Other exchange programs include:
- University of Groningen, Netherlands (English-language courses offered)
- ESIDEC - Metz, France
- Karlsruhe University, Germany
- Reutlingen University of Applied Sciences, Germany
- Kansai Gaidai University, Japan
- Business majors at EMU may participate in the Regional Area Mobility Program (RAMP) during fall and winter semesters. Courses are taught in the language of the host institution: Spanish at Mexican Universities; English or French at Canadian Universities. Proficiency in the relevant language is required.
- The Japan Center for Michigan Universities (JCMU) in Hikone, Japan, offers Japanese Language and Culture courses open to all majors; no prior knowledge of Japanese is required.
- Affiliated programs include: Curtin University of Technology, Australia; Université Catholique de l'Ouest, France.


## Office of Academic Programs Abroad Student Services

The Office of Academic Programs Abroad provides EMU students with:

- Comprehensive study abroad advising
- Study Abroad Orientation
- Health and safety information
- International student identity cards
- International health insurance
- Financial aid coordination and scholarship advice
- Innovative and affordable study abroad programs

In addition to EMU programs, the Office of Academic Programs Abroad maintains a library of information on hundreds of study abroad programs sponsored by universities all over the world. Students may browse the library and make appointments for advising Monday through Friday throughout the school year. Most EMU programs are online at: www.emich.edu/abroad.

## World College

Margareta O'Connell, director
103 Boone Hall
www.emich.edu/worldcollege
Phone: 734.487.2414
Fax: 734.485.1980
E-mail: Cont_edworldcollege@emich.edu
The World College coordinates and facilitates the development of inter-nationally-focused programs via collaboration with the entire University community. Among the major goals of the World College are:

- To facilitate the incorporation of global perspectives in University curricula
- To assist in developing and maintaining a liaison with foreign academic institutions, governments and business organizations
- To serve as a clearinghouse of information and referrals regarding internationally-focused projects, programs, events and activities
- To assist faculty and staff in internationalizing their own expertise and in applying their expertise to new international endeavors
- To increase international educational experiences for students and faculty, on campus and abroad
- To develop international programs through federal and state funding

The World College is not a traditional academic college. Rather, it serves as a facilitating and coordinating center for international education, seeking to promote the broadening of awareness and understanding in all colleges, departments and programs at EMU of the world outside the borders of our country. World College programs are developed in conjunction with faculty and administrators in the other academic colleges.

## Centers for Corporate Training

Center for Organizational Risk Reduction/Great Lakes OSHA Education Center<br>www.emuosha.org<br>Center for Quality<br>www.centerforquality.org<br>Pamela Hill, director<br>2000 Huron River Drive, Suite 101<br>800.932.8689<br>E-mail: pamela.hill@emich.edu<br>Barbara L. Hopkins, director<br>2000 Huron River Drive, Suite 101<br>800.932.8689<br>E-mail: barbara.hopkins@emich.edu

The Centers for Corporate Training are nationally known for designing and providing a wide range of training, technical assistance and consulting for hundreds of companies each year in health, safety, security and quality. Our clients include the Big Three automotive manufacturers and their suppliers, plastics and electronics producers, healthcare providers and government agencies.

Each of the centers works, in its own way, to help individuals and organizations reach and maintain excellence. We are dedicated to helping companies not only survive but prosper during rapid organization, technological and economic change.

By developing customized programs, innovative training and effective, practical consulting, the centers support organizations as they improve the quality of their products, the productivity of their processes and the safety of their workplaces. Our partners are workers, supervisors, managers and executives who will create and succeed in the global marketplace.

The Centers for Corporate Training provided innovative education and training for more than 8,000 people from 2003 - 2004. Since 1990, the centers have conducted programs in more than a dozen countries in North America, Asia, Europe and South America.

They include:

- Center for Quality
- Center for Organizational Risk Reduction
- OSHA Training Institute


# Institute for the Study of Children, Families and Communities 

Ronald C. Woods J.D., director<br>203 Boone Hall<br>www.iscfc.emich.edu<br>Phone: 734.487.0372<br>Fax: 734.487.0284<br>E-mail: ronald.woods@emich.edu

The Institute for the Study of Children, Families and Communities is an interdisciplinary applied research unit. It is dedicated to enhancing the quality of life in society. Its focus upon human capital development and community growth embraces, in addition to research, demonstration projects, technical assistance, consultation, training, assessment and policy analysis and advocacy. The institute executes its mission through its three centers.

The Center for Applied Research (CAR) provides a full range of research services including needs assessments, asset mapping, survey research, program monitoring and evaluation, data collection and analysis, and policy impact analysis. The CAR includes a state-of-the-art Computer Assisted Telephone Interviewing facility, the CATI Lab. Director: Peggy Wiencek, M.S., e-mail: peggy.wiencek@emich.edu

The Center for Child and Family Programs (CCFP) focuses on vulnerable children, families and marginalized youth. The CCFP conducts applied research and program evaluation, develops training curricula, provides technical assistance and develops policy recommendations at the local, state and national levels. Director: Valerie Polakow, Ph.D., e-mail: valerie.polakow@emich.edu

The Center for Community Building and Civic Engagement (CCBCE), newly funded through a U.S. Department of Justice grant, operationally extends EMU's mission as a metropolitan University into the greater community. Through projects such as the HUD Community Outreach Partnership Center, it promotes community capacity building, youth violence reduction and a range of community-University collaborations.

Director: Elvia R. Krajewski-Jaime, Ph.D., e-mail: ekrajewski@emich.edu

## Upward Bound Program

Amy Prevo-Johnson, Director
Suite B4 Goddard Hall
Phone: 734.487.0488
Fax: 734.487.5088
E-mail: amy.prevo.johnson@emich.edu
Upward Bound is a pre-college academic support program funded by the U.S. Department of Education. The mission of this program is to provide the academic support, college preparation, career exploration and personal growth necessary to help students excel academically, enroll in and graduate from college, set and accomplish their goals and to realize their fullest potential as individuals. The program works with economically disadvantaged and/ or potential first generation college students from Ypsilanti area high schools.

Upward Bound provides participants with academic assessment and advising, tutoring and instruction in core academic subjects and study skills enhancement. Services also include preparation for college entrance exams, assistance with the college application process including securing scholarships and financial aid, as well as the opportunity to explore careers by participating in job shadowing and summer internship programs.

## INTERDISCIPLINARY PROGRAMS

## PROFESSIONAL MASTERS OF SCIENCE in Bioinformatics (BINF)

A professional science master's (PSM) recognized by the Alfred P. Sloan Foundation, the M.S. in bioinformatics has the goal of providing a path into industry. The program combines coursework from the biological sciences, mathematics, computer science and management. Capstone experiences emphasize solving problems from industry in a seminar in which students work in groups, and an internship.

## Admission Requirements

Students entering the program will meet the admission requirements of the Graduate School. In addition, students will show evidence on transcripts of having completed with a grade of C or better an introductory course in both biology and chemistry, an introductory computer programming course, a statistics course and one college calculus course. Students will also submit scores from the Graduate Record Examination (GRE), two letters of recommendation, and a personal statement.

The M.S. in Bioinformatics requires the completion of 34-35 hours of course work to be distributed among required courses and restricted electives as follows:

```
Required Courses
        28 hours
    BIOL551 Bioinformatics I (3 hrs)
    BIOL552 Bioinformatics II (3 hrs)
    CASI650 Current Challenges in Bioinformatics Seminar (3 hrs)
    CASI680 Internship in Bioinformatics (3 hrs)
    COSC576 Computational Tools in Bioinformatics (3 hrs)
    MATH566 Modeling in Bioinformatics (3 hrs)
    MATH570 Statistical Concepts and Methods for Bioinformatics (3 hrs)
    MGMT513 Business Communication Seminar ( 1 hr )
    MGMT602 Organizational Development (3 hrs)
    MGMT638 Building Continuous Improvement Teams (3 hrs)
Restricted Elective Courses .....................................................6-7 hours
    One course from the following:
        BIOL401 Genome Analysis (3 hrs)
        BIOL545 Recombinant DNA Technologies (3 hrs)
    One course from the following:
        COSC514 Fundamentals of Computer Science (4 hrs)
        COSC616 Algorithms in Bioinformatics (3 hrs)
```

Program Total
34-35 hours

## Interdisciplinary Graduate Certificates

Eastern's interdisciplinary graduate certificates prepare students interested in a cross-cutting topic with a wider range of integrated knowledge, skills and methods to meet the challenges of contemporary professional practice. Interdisciplinary studies catalyze new knowledge from many disciplines by uniting them under a central theme with shared principles and related focal points.

Credit earned in these programs can be applied toward master's degree programs and, conversely, credits earned in the master's degree programs can bundle toward a certificate. Please contact the programs you are interested in for more details or click the Web site to see the program's offerings.

The two interdisciplinary certificate programs listed below provide a coordinated program of study in the area of working with nonprofit organizations in the community. Designed for executive directors, program managers, board members, consultants of nonprofit organizations and public administration professionals who want to develop competencies and peer networks to strengthen community organizations that, in turn, improve the quality of life for citizens. Each certificate is a five-course program of 12-15 credit hours with courses drawn from multiple disciplines and that can either enhance of apply towards a graduate program (such as M.B.A., M.P.A., M.S.W., M.L.A. or other M.A./M.S. programs). Convenient scheduling, Web-enhanced learning and practical active learning strategies for working professionals and adult learners.

# GRADUATE CERTIFICATE in Nonprofit Management (NPMG) 

Dr. Don Koyluoglu<br>601N Pray Harrold<br>734.487.3113<br>sukru.koyluoglu@emich.edu

This interdisciplinary graduate certificate is designed to develop management competencies for working professionals in public and nonprofit organizations. Competency areas cover practical skills for building management capacity of an organization, such as financial management of resources and accountability for performance; governance issues and the legal and ethical environment of nonprofit organizations; human resources; managerial techniques; and technology and information systems. Coursework is focused on management skill development for immediate, practical application of the knowledge gained from the program to nonprofit organizations, rather than concepts and theory. The program may provide a foundation for further graduate work in business, public administration, health and human service and other disciplines or extend the skills of professionals who already have graduate degrees, such as a master's in social work.

```
Required Courses.
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$\qquad$

``` 14-15 hours
Financial Management, Accountability and Legal Competencies
ACC646 Financial Management of Nonprofit
Organizations (3 hrs)
LAW603 Legal Environment of Nonprofit Organizations (3 hrs)
Budgeting and Resource Management Competencies
One course from the following:
ACC605 Strategic Information and Control Systems (3 hrs)
PLSC540 Introduction to Government Budgeting (3 hrs)
Human Resource Management Competencies
One course from the following:
MGMT609 Human Resource Management (3 hrs)
MGMT628 Human Resource Development (3 hrs)
PLSC515 Public Personnel Administration (3 hrs)
SWRK570 Supervising Staff and Volunteers (3 hrs)
Networking, Application and Integration Competencies:
One course from the following:
SWRK694 Community Action Seminar (2 hrs)
SWRK662 Grant Writing and Resource Development (3 hrs)
PLSC645 Intergovernmental Relations (2 hrs)
```

Certificate Total
14-15 hours

## GRADUATE CERTIFICATE in Public Personnel Management (PPM)

Required Courses..................................................................... 14 hours
PLSC510 Modern Public Administration (3 hrs)
PLSC515 Public Personnel Administration (3 hrs)
PLSC665 Basic Arbitration Training for Professionals (2 hrs)
Two courses from the following:
MGMT611 HR and Technology (3 hrs)
MGMT618 Staffing Organizations (3 hrs)
MGMT620 Compensation Management (3 hrs)
MGMT625 Management in Unionized Settings (3 hrs)
MGMT628 Human Resources Development (3 hrs)
ECON505 Collective Bargaining in Public and Private Sectors (3 hrs)

Certificate Total
14 hours

# GRADUATE CERTIFICATE in Public Budget Management (PBM) 

Required Courses.<br>$\qquad$ 14 hours<br>PLSC510 Modern Public Administration (3 hrs)<br>PLSC540 Public Budget Administration (3 hrs) PLSC615 Public Budget Applications (2 hrs)<br>Two courses from the following:<br>ECON550 Modern Public Administration (3 hrs) ECON551 State and Local Government Finance (3 hrs) ACC546 Public and Nonprofit Sector Accounting (3 hrs)<br>ACC646 Financial Management of Nonprofit Organizations (3 hrs)

Certificate Total. 14 hours

## GRADUATE CERTIFICATE in Management of Public Healthcare Services (MPH)

Required Courses............................................................... 14-15 hours
PLSC510 Modern Public Administration (3 hrs)
HLAD510 Medical Care Organizations (3 hrs)
One course from the following:
PLSC515 Public Personnel Administration (3 hrs)
PLSC540 Public Budget Administration (3 hrs)
Two courses from the following:
PLSC660 Public Health Care Policy (2 hrs)
HLAD511 Health Law (3 hrs)
HLAD512 Reimbursement for Health Care Services (3 hrs)
Certificate Total
14-15 hours

## GRADUATE CERTIFICATE <br> in Public Land Planning and Development Management (PLP)

```
Required Courses.
```

$\qquad$

``` 14-15 hours
PLSC510 Modern Public Administration (3 hrs)
GEOG553 Urban and Regional Planning (2 hrs)
One course from the following:
PLSC515 Public Personnel Administration (3 hrs)
PLSC540 Public Budget Administration (3 hrs)
Two courses from the following:
PLSC520 Land Use and Preservation Law (3 hrs)
GEOG555 Comprehensive Planning (2 hrs)
GEOG556 Zoning (2 hrs)
GEOG557 Community Development and Downtown Revitalization (3 hrs)
GEOG570 Rural Planning and Preservation (2 hrs)
GEOG581 Advanced Environmental Assessment (3 hrs)
PLSC655 Politics of Planning (2 hrs)
```

Certificate Total
14-15 hours

## GRADUATE CERTIFICATE in Public Policy Analysis (PPA)

Before enrolling in this certificate program, all students will be required to have the prerequisites of an introductory macro and mirco economies class or the equivalent of ECON500 Economics: Principles and Institutions, plus a basic social science statistics class; 400-level economics classes will be taken for graduate credit.

```
Required Courses
                            16-17 hours
    PLSC630 Public Bureaucracies and Policy Formation (3 hrs)
    PLSC635 Public Policy Analysis (2 hrs)
    Three courses from the following:
        ECON415 Introduction to Econometrics (3 hrs)
        ECON455 Cost Benefit Analysis (3 hrs)
        ECON501 Macroeconomic Theory and Policy (3 hrs)
        ECON502 Microeconomic Theory and Policy (3 hrs)
        ECON515 Econometrics:Theory and Applications (3 hrs)
    Select one substantive policy focused course in health care, environ-
        ment, planning, education, nursing, gerontology, social work,
        poverty, local government, etc. (2-3 hrs)
```

Certificate Total
16-17 hours

## GRADUATE CERTIFICATE in Community Building (CBLD)

Dr. Marti Bombyk, professor of social work
333 Marshall Building
734.487.4173

Marcia.Bombyk@emich.edu
This unique certificate is designed to develop the competencies of community leaders, professionals and staff of nonprofit organizations in leadership, resource development and program evaluation; in understanding the community as a complex system; in understanding their organizations' potential for civic action; and in understanding how to improve the capacity of their community organizations to meet their missions and strengthen the community.

An external focus - to develop competencies for understanding the community as a social system and improving the social bonds and leadership skills among members of the community.

```
Required Courses.
```

$\qquad$

``` 12-13 hours
SWRK602 Community Building (2 hrs)
SWRK662 Grant Writing and Resource Development (3 hrs) One course from the following:
LAW603 Legal Environment of Nonprofit Organizations (3 hrs)
SWRK526 People of Color: Non-Deficit Perspective (2 hrs)
SOCL678 Methods in Social Program Evaluation (3 hrs)
SWRK694 Community Action Seminar (2 hrs)
```

Certificate Total.
12-13 hours

## GRADUATE CERTIFICATE IN Bioinformatics (BINF)

This certificate provides a specialization in the basic skills of bioinformatics from biology, computer science and mathematics. The graduate certificate in bioinformatics requires the completion of 18-19 hours of course work to be distributed among required courses and restricted electives as follows:

```
Required Courses
```

$\qquad$
$\qquad$

``` 18-19 hours
```

BIOL551 Bioinformatics I (3 hrs)

```COSC576 Computational Tools in Bioinformatics (3 hrs)One course from the following:
            COSC514 Fundamentals of Computer Science (4 hrs)
            COSC616 Algorithms in Bioinformatics (3 hrs)
    MATH570 Statistical Concepts and Methods for Bioinformatics (3 hrs)
    MATH566 Modeling in Bioinformatics (3 hrs)
    MGMT638 Building Continuous Improvement Teams (3 hrs)
```

Certificate Total. 18-19 hours

## Graduate Certificate in Water Resources (WTRS)

## Course Requirements

The graduate certificate in water resources requires the completion of 17 hours of course work to be distributed among required courses as follows:

Required Courses. 17 hours BIOL522 Limnology (3 hrs) BIOL535 Wetland Ecosystems (3 hrs) GEOG579 Geographic Information Systems (3 hrs) GEOG678 Advanced Applications of GIS (3 hrs)<br>One course from the following:<br>ESSC448 Hydrogeology ( 3 hrs )<br>ESSC459 Aquifer Analysis (3 hrs)<br>One course from the following:<br>BIOL697 Independent Study ( 1 hr ) (2 needed)<br>BIOL698 Independent Study ( 2 hrs )

Certificate Total........................................................................... 17 hours

## COLLEGE OF ARTS AND SCIENCES

Dean:<br>Linda Pritchard<br>411 Pray-Harrold<br>734.487.4344

Associate Dean:
Laura George, Interim
411 Pray-Harrold
734.487.4348

Associate Dean:
Hartmut Höft, Interim
411 Pray-Harrold
734.487.4349

Departments and Programs

- African American Studies
- Art
- Biology
- Chemistry
- Communication and Theatre Arts
- Computer Science
- Economics
- English Language and Literature
- Foreign Languages and Bilingual Studies
- Geography and Geology
- History and Philosophy
- Mathematics
- Music and Dance
- Physics and Astronomy
- Political Science
- Psychology
- Sociology, Anthropology and Criminology
- Women's Studies Program


## Mission Statement

The College of Arts and Sciences at Eastern Michigan University has as its mission the intellectual growth and the pursuit of excellence in the study and enhancement of the arts and humanities, mathematics and the social and natural sciences. The college is composed of students, faculty and staff committed to teaching and learning, to research and scholarship, to creative endeavors and to public service.

Through these pursuits, the college seeks to enrich the lives of all its members and prepare them for service in the local, national and global communities. The college seeks to encourage dynamic engagement with the arts and humanities and the pursuit of an ever-deeper understanding of the sciences and of physical and social life in all its forms and manifestations.

The college seeks to develop in all its members the ability and desire to think critically, to act independently and to communicate effectively. Finally, the college seeks to foster an appreciation for the diverse multicultural, ethnic and gender-related perspectives.

The College of Arts and Sciences is the largest of the five colleges at Eastern Michigan University, hosting seventeen academic departments and one program. It offers almost forty fields of graduate study, and enrolls more than 1,000 graduate students. The college was established during the 195960 academic year, unifying various disciplines that had existed on campus for the previous century and a half.

The breadth of the college's degrees reflects the varied objectives of its students. Its strengths include applied master's degrees, such as economics, bilingual studies, applied statistics, historic preservation and art education that prepare students for advanced positions in the workplace. Other students pursue a master's degree preparatory to doctoral studies in virtually any liberal arts field and have gained admission to some of the leading doctoral universities in the nation. Still other graduate students are improving their subject expertise as elementary, secondary or community college teachers, while others are pursuing a lifelong interest in a subject for personal enrichment. All find a place in the college.

Graduate students work closely with the college's skillful and experienced teachers and researchers. Students have an opportunity to work with nationally recognized scholars in many fields. More than 94 percent of the faculty have doctorates. The college includes within its ranks editors of scholarly journals and authors of major books published by leading university presses as well as peer-reviewed articles in the best academic journals. Equally impressive is the faculty's dedication to teaching. The college has earned more than its share of Distinguished Faculty Awards in Teaching, Research and Service.

Students and faculty in the College of Arts and Sciences reflect the diversity of the world around us. Eastern Michigan University, which evolved from a Normal School preparing teachers, pioneered in the employment of women in higher education. The college continues to do so. Today more than one-third of its faculty is made up of women, a figure which has continued to grow over the past 15 years. It also houses one of the oldest Women's Studies programs in the nation, and is one of about 50 universities nationally to offer a master's degree in the field. Twelve percent of the college's faculty are minorities, and it has a well-established African American Studies Department, the oldest in Michigan. The majority of the international students attending EMU are enrolled in College of Arts and Sciences degree programs.

Many graduate programs are tailored to the time demands of students in today's busy world. A number of courses are available at off-campus sites and online. Evening, weekend and summer classes also make the college's graduate programs accessible and reflect its commitment to meeting students' needs, without sacrificing the quality of instruction.

Graduate programs in the College of Arts and Sciences are actively involved in assessment and improvement. Several recent notable changes include a doctoral degree in clinical psychology which began to admit students in fall 2001. It is the second doctorate to be offered at EMU. Others are under discussion. A new Terrestrial and Aquatic Ecology Research Facility provides a 3,000 -square-foot greenhouse and other updated equipment to support research from molecular to ecosystems levels of organization. A new Center for Environmental Information Technology and Applications (CEITA) is the primary data warehouse for environmental information in southeast Michigan, and has a cooperation agreement with the Chinese Academy of Science. The Linguistics Program in the Department of

English Language and Literature is internationally recognized as a primary electronic repository for endangered languages and for its cutting-edge work on language digitization. The newly refurbished Pease Auditorium houses a world-class organ with 4,373 pipes and has been the scene of major musical recitals. Each year, too, the college appoints a distinguished scholar, artist or performer to its McAndless Chair in the Arts and Humanities. Appointments have included novelist, Maxine Hong Kingston; African-American historian, Roger Wilkins; literary theorist, Kenneth Burke; Shakespearean actor, Nicholas Pennell; animal rights philosopher, Tom Regan and Syrian literary critic and feminist, Bouthaina Shaaban. Each has taught an upper-level or graduate class in their field and has interacted extensively with students.

Above all, the College of Arts and Sciences fosters a graduate community of scholars who are dedicated to the discovery and transmission of knowledge. It is the goal of the arts and sciences faculty to foster the same enthusiasm for learning that drew them into their respective fields. Fundamentally, the college seeks to develop in all its members the ability and desire to think critically, act independently and communicate effectively, the traditional hallmarks of liberal arts learning.

## Graduate Degrees and Certificate Programs

The college offers the following graduate degrees and graduate certificate programs in the various disciplines of arts and sciences. Admission and degree requirements for each program can be found in the departmental sections of this catalog.

## African American Studies

GRADUATE CERTIFICATE in African American Studies

## Art

## MASTER OF FINE ARTS

MASTER OF ARTS in Art Education
MASTER OF ARTS in Studio Art

## Biology

PROFESSIONAL MASTER OF SCIENCE in Bioinformatics
MASTER OF SCIENCE in Community College Biology Teaching
MASTER OF SCIENCE in Ecosystem Biology
MASTER OF SCIENCE in Biology - General
MASTER OF SCIENCE in Molecular/Cellular Biology
MASTER OF SCIENCE in Physiology
GRADUATE CERTIFICATE in Bioinformatics
GRADUATE CERTIFICATE in Water Resources

## Chemistry

MASTER OF SCIENCE in Chemistry

## Communication and Theatre Arts

MASTER OF FINE ARTS in Drama/Theatre for the Young
MASTER OF ARTS in Theatre Arts
MASTER OF ARTS in Theatre Arts Administration
MASTER OF ARTS in Communication
MASTER OF ARTS in Interpretation/Performance Studies MASTER OF ARTS in Drama/Theatre for the Young

## Computer Science

PROFESSIONAL MASTER OF SCIENCE in Bioinformatics MASTER OF SCIENCE in Computer Science
GRADUATE CERTIFICATE in Artificial Intelligence GRADUATE CERTIFICATE in Bioinformatics SECONDARY TEACHING CERTIFICATE ENDORSEMENT Double MASTER OF SCIENCE in Computer Science Degree Program with Fachhochschule Karlsruhe, Germany

## Economics

MASTER OF ARTS in Economics
MASTER OF ARTS in International Economics and Development

MASTER OF ARTS in Health Economics
MASTER OF ARTS in Applied Economics
MASTER OF ARTS in Trade and Development
GRADUATE CERTIFICATE in Public Personnel Management
GRADUATE CERTIFICATE in Public Budget Management
GRADUATE CERTIFICATE in Public Policy Analysis

## English Language and Literature

MASTER OF ARTS in Children's Literature
MASTER OF ARTS in Creative Writing
MASTER OF ARTS in English Linguistics
MASTER OF ARTS in Literature
MASTER OF ARTS in Written Communication
GRADUATE CERTIFICATE in Technical Communication
Foreign Languages and Bilingual Studies
MASTER OF ARTS in Foreign Language - French
MASTER OF ARTS in Foreign Language - German
MASTER OF ARTS in Foreign Language - Spanish
MASTER OF ARTS in Language and International Trade
MASTER OF ARTS in Spanish Bilingual-Bicultural Education
MASTER OF ARTS in Teaching English to Speakers of Other Languages
GRADUATE CERTIFICATE in Teaching English as a Second Language
BILINGUAL ENDORSEMENT Programs for Certified Teachers (not a degree program)
GRADUATE CERTIFICATE in Hispanic Language and Cultures
GRADUATE CERTIFICATE in German for Business Practices

## Geography and Geology

MASTER OF SCIENCE in Geographic Information Systems
MASTER OF SCIENCE in Urban and Regional Planning
MASTER OF SCIENCE in Historic Preservation - Conservation and Technology
MASTER OF SCIENCE in Historic Preservation - Heritage Interpretation, Tourism and Administraion
MASTER OF SCIENCE in Historic Preservation - Preservation Planning
MASTER OF SCIENCE in Historic Preservation - General Science
GRADUATE CERTIFICATE in Geographic Information Systems (GIS) for Educators
GRADUATE CERTIFICATE in Geographic Information Systems (GIS) for Professionals
GRADUATE CERTIFICATE in Historic Preservation
GRADUATE CERTIFICATE in Public Land Planning and Development Management
GRADUATE CERTIFICATE in Water Resources

## History and Philosophy

MASTER OF ARTS in History
MASTER OF ARTS in Social Science
MASTER OF LIBERAL STUDIES in Social Science and American Culture
GRADUATE CERTIFICATE in State and Local History
ADVANCED GRADUATE CERTIFICATE in State and Local History

## Mathematics

MASTER OF ARTS in Mathematics
MASTER OF ARTS in Mathematics Education
MASTER OF ARTS in Computer Science
MASTER OF ARTS in Statistics
PROFESSIONAL MASTER OF SCIENCE in Bioinformatics
GRADUATE CERTIFICATE in Bioinformatics
Music and Dance
MASTER OF ARTS in Music
MASTER OF ARTS in Music Education

Physics and Astronomy
MASTER OF SCIENCE in General Science
MASTER OF SCIENCE in Physics
MASTER OF SCIENCE in Physics Education
Political Science
MASTER OF PUBLIC ADMINISTRATION (M.P.A.) in Public Management
MASTER OF PUBLIC ADMINISTRATION (M.P.A.) in Health Administration
MASTER OF PUBLIC ADMINISTRATION (M.P.A.) in Land Planning and Development
MASTER OF PUBLIC ADMINISTRATION (M.P.A.) in Gerontology
MASTER OF PUBLIC ADMINISTRATION (M.P.A.) in Human Resource Administration
MASTER OF PUBLIC ADMINISTRATION (M.P.A.) in Organization Management
MASTER OF PUBLIC ADMINISTRATION (M.P.A.) in Public Safety
GRADUATE CERTIFICATE in Community Building
GRADUATE CERTIFICATE in Nonprofit Management
GRADUATE CERTIFICATE in Public Personnel Management
GRADUATE CERTIFICATE in Public Budget Management
GRADUATE CERTIFICATE in Public Land Planning and Development Management
GRADUATE CERTIFICATE in Local Government Management
GRADUATE CERTIFICATE in Public Policy Analysis

## Psychology

DOCTOR OF PHILOSOPHY in Clinical Psychology
MASTER OF SCIENCE in Clinical Behavioral Psychology
MASTER OF SCIENCE in Clinical Psychology
MASTER OF SCIENCE in General Experimental Psychology
Sociology, Anthropology and Criminology
MASTER OF ARTS in Criminology and Criminal Justice
MASTER OF ARTS in Sociology
MASTER OF ARTS in Sociology - Evaluation and Applied Research in Sociology
MASTER OF ARTS in Sociology - Family Specialty
MASTER OF ARTS in Sociology - Schools, Society and Violence
GRADUATE CERTIFICATE in Community Building

## Women's Studies Program

MASTER OF LIBERAL STUDIES in Women's Studies

## Department of African American Studies

Campus Address: 620 Pray-Harrold<br>Internet: www.emich.edu/public/daas<br>Telephone: 734.487.3460<br>E-mail: ronald.woods@emich.edu

See page 169 for course descriptions.

The Department of African American Studies offers occasional graduate courses under three graduate special topics courses as well as offering students the option of independent study. These courses offer advanced study in the field and are available as electives to graduate students in diverse disciplines.

# GRADUATE CERTIFICATE in African American Studies 

Course Requirements<br>The certificate in African American Studies requires the completion of 15 hours of course work to be distributed among required courses as follows:<br>Required Courses.<br>.15 hours<br>AAS501 Foundational Issues in African American Studies (3 hrs) AAS602 Researching Black Communities (3 hrs)<br>Nine hours from the following:<br>AAS592 Special Topics in African American Studies (3 hrs)<br>AAS503 Public Policy and African Americans (3 hrs) AAS504 Politics in the African American Experience (3 hrs) AAS505 The African Political Economy (3 hrs)<br>AAS541 Law, Race and Community ( 3 hrs )<br>AAS542 Race and Crime and the African American Experience (3 hrs)<br>AAS543 Civil Rights and the African American Experience (3 hrs) Any other approved graduate-level course

Certificate Total 15 hours

# Department of Art 

Campus Address: 114 Ford Hall<br>Internet: www.emich.edu/art<br>Telephone: 734.487.1268<br>E-mail: tom.venner@emich.edu

See page 170 for course descriptions.

The Department of Art offers the master of fine arts (M.F.A.) and master of arts in art education and in studio art. The M.F.A. program requires a minimum of 60 hours beyond the bachelor's degree and full-time enrollment each semester. The master of arts programs require a minimum of 30 hours beyond the bachelor's degree and allow part-time enrollment. Further information may be obtained from the Department of Art.

Students without undergraduate majors in art must complete approximately 30 hours of undergraduate course work in art that is selected in consultation with the graduate coordinator before admission to the graduate program.

## MASTER OF FINE ARTS (M.F.A.) (SARF)

## Admission Requirements

Applicants should see the section on admissions for general admission information and procedure (page 9). Applicants for admission to the M.F.A. degree program must have an undergraduate degree, with a major in art or approximately 30 hours of undergraduate course work in art through an accredited institution; meet degree admission standards of the Graduate School; and

1. Send an application for admission to the coordinator of the M.F.A. program in the Department of Art.
2. Submit three letters of recommendation to the M.F.A. program coordinator.
3. Send to the M.F.A. coordinator in the Department of Art a portfolio of 10-15 color images (CD or slides) of recent work, with each image individually labeled with name, title of work, medium, size and date of completion. (Applicants in three-dimensional disciplines may submit multiple views of examples.)

Applications received in the Department of Art by February 15 for fall semester and by October 1 for winter semester will be given priority. Late applications will be considered as studio space permits. Please consult the Graduate School section of this catalog for application deadlines.

## Degree Requirements

The graduate coordinator will meet with each student to construct a program of study. Students should follow closely the Graduate School requirements for "Application for Diploma." Students whose degree program includes a final exhibition of work must apply for gallery space one semester prior to the proposed exhibition. Two years of residency (full-time enrollment) are required; exceptions may be made to this requirement with the approval of the student's adviser and the M.F.A. committee.

At the end of the first year, the M.F.A. committee will review the work of each M.F.A. student and either allow the student to continue or formally ask the student to withdraw from the program. Individual passing grades assigned by a student's principal adviser or other faculty during the first full year of enrollment in the M.F.A. program shall not be construed as a guarantee that any student will be granted continuation in the M.F.A. program beyond the initial first year of study, since the mid-program review by the M.F.A. committee is based upon a de-novo review of the student's entire first year of M.F.A. work and his or her performance in the mid-program review. Further, no student may rely on statements by faculty or other agents of the University that would suggest, even remotely, that the student is ensured continued enrollment in the M.F.A. program prior to a review and recommendation by the M.F.A. committee.

## Course Requirements

The M.F.A. requires the completion of 60 hours of course work to be distributed among required courses, elective courses and cognate courses as follows:
Required Courses.

.43 hours

    ART630 Graduate Studio (9 hrs)
    
    ART631 Graduate Studio (9 hrs)
    
    ART695 Seminar in Contemporary Ideas (3 hrs)
    
    ART696 Seminar in Contemporary Ideas (3 hrs)
    
    ART732 Graduate Studio (9 hrs)
    
    ART733 Graduate Thesis and Exhibition (8 hrs)
    
    ART734 Oral Defense of M.F.A. Exhibition (2 hrs)
    Elective Courses....................................................................... 11 hours
Eleven hours selected in consultation with the graduate adviser.
Art elective courses (5 hrs)
Art History elective courses (6 hrs)
Cognate Courses........................................................................ 6 hours
Six hours selected in consultation with the graduate adviser.
Program Total
60 hours

## MASTER OF ARTS in Art Education (ARTE)

This degree is designed for persons currently teaching, or who have fulfilled art teaching certificate requirements. The program builds in a comprehensive way on the four components of discipline-based art education (DBAE): aesthetics, art history, art criticism and art production.

## Model

Eastern Michigan University's advanced professional education programs develop leaders who demonstrate reflective thought and scholarship within the context of a culturally diverse society. In addition, the master of arts in art education program produces educators who are committed to their ongoing professional growth and are aware of the challenges of democracy in our culturally diverse society. These educators will assert leadership and the ability to cultivate abstract thinking skills and analyze visual statements for personal meaning.

## Admission Requirements

Applicants should see the Graduate Catalog section on admissions for general admission information and procedure (page 9). Entry requirements are a minimum of 34 hours of art education and studio art with a minimum 2.8 grade point average in these classes. In addition, each applicant is expected to hold a teaching certificate for the teaching of art. An applicant for admission must do the following:

1. Submit GRE test scores with the application;
2. Send a letter of purpose outlining aspirations in graduate work to the Department of Art;
3. Send a portfolio of 10-15 color images (CD or slides) of recent work, with each image individually labeled with name, title of work, medium or media, size, and date of completion to the Department of Art. (Applicants in three-dimensional disciplines may submit multiple views of examples); and
4. Portfolios and materials must be submitted to the Art Department during the fall semester for winter admission and during the winter semester for spring, summer and fall admission.

## Degree Requirements

The graduate coordinator will meet with each student to construct a program of study. Students should follow closely the Graduate School requirements for "Application for Diploma." Students whose degree program includes a final exhibition of work must apply for gallery space one semester prior to the proposed exhibition.

Graduate credit in art education (theory and practice) earned more than six years prior to the date on which the degree was granted may not be applied to meet the graduate requirements.

After the student has completed six hours of course work in art education, the graduate coordinator or program adviser will evaluate for approval the selection of a thesis proposal or paper option in an appropriate art education area. A required thesis review will be conducted by a faculty committee.

## Course Requirements

The M.A. in art education requires the completion of 30 hours of course work to be distributed among required courses, elective courses and cognate courses as follows:

```
Art Education Courses.
                . }10\mathrm{ hours
    Six to eight hours from the following, selected in consultation with an art
        education faculty member:
        ART504 Aesthetic Education (2 hrs)
        ART505 Curriculum Development (Art Education) (2 hrs)
        *ART506 ARTAG (Art for the Talented and Gifted) (2 hrs)
        *ART507 Studio Connections in Art Education (2 hrs)
        *ART508 Research in Art Education (2 hrs)
        *ART591 Special Topics (2 hrs)
        ART694 Seminar in Art Education (2 hrs)
        Other courses as they become available and approved by the adviser.
    Two to four hours from the following:
        *ART691 Thesis (2 hrs)
        *ART698 Independent Study (paper of publishable/distributable
            quality) (2 hrs)
```

Art Elective Courses (Studio, Art History, Art Education) ......... 14 hours Students wishing to have an exhibition in conjunction with their art education studies are subject to a 10 -hour review of their studio program.

> Cognate Courses........................................................................... 6 hours Six hours selected from art or other areas in consultation with the adviser.
Program Total ..... 30 hours
Note:
*These cousses may be repeated if determined appropriate by the graduate coordinator.

## MASTER OF ARTS in Studio Art (SAR)

This degree is designed for persons seeking an advanced degree in studio art.

## Admission Requirements

Applicants should see the Graduate Catalog section on admissions for general admission information and procedure (page 9). An undergraduate degree with a major in art and a minimum grade point average of 2.8 in art classes is normally required for admission. A student may be required by the M.A. committee to make up deficiencies at the undergraduate level. Applicants must:

1. Send to the M.A. coordinator in the Department of Art a portfolio of 10-15 color images (CD or Slides) of recent work, with each image individually labeled with name, title of work, medium, size and date of completion. (Applicants in three-dimensional disciplines may submit multiple views of examples.)
2. Portfolios and materials must be submitted to the Art Department during the fall semester for winter admission and during the winter semester for spring, summer and fall admission.

## Degree Requirements

The graduate adviser will meet with each student to construct a program of study. Students should follow closely the Graduate School requirements for "Application for Diploma." Students whose degree program includes a final exhibition of work must apply for gallery space one semester prior to the proposed exhibition.

At the end of 10 hours taken in the studio program, the M.A. committee will review the work of each M.A. student and either allow the student to continue or formally ask the student to withdraw from the program. Individual passing grades assigned by a student's instructor(s) during the first 10 hours in his or her M.A. degree program studio program shall not be construed as a guarantee that any student will be granted continuation in the M.A. program beyond the initial 10 hours of study in the program, since the 10 -hour review by the M.A. committee is based upon a de-novo review of the student's entire first 10 hours of work in his or her M.A. studio program, electives taken and his or her performance in the 10hour review. Further, no student may rely on statements by faculty or other agents of the University that would suggest, even remotely, that the student is ensured continued enrollment in the M.A. program prior to a review and recommendation by the M.A. committee.

## Course Requirements

The M.A. in studio art requires the completion of 30 hours of course work to be distributed among program courses, elective courses and cognate courses as follows:

Studio Concentration
.. 14 hours
Select from the following programs:

| drawing | sculpture |
| :--- | :--- |
| graphic design | ceramics |
| painting | jewelry |
| printmaking | textiles |
| photography | watercolor |

## Art Elective Courses................................................................. 10 hours <br> Ten hours selected from courses outside the major area. (Courses may be grouped to form a minor in consultation with the graduate adviser.)

## Cognate Courses.

.6 hours
Six hours selected from art andlor other areas in consultation with the adviser. Must include: ART428 Seminar in 20th Century Art (3 hrs) for graduate credit or ART530 Seminar in 20th Century Art (3 hrs).

Program Total 30 hours

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400-level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission. Otherwise, you will receive undergraduate credit.

```
ART406 Printmaking (3 hrs)
ART408 Ceramics (3 hrs)
ART409 Advanced Photographic Imagery (3 hrs)
ART410 Metal Casting Techniques (3 hrs)
ART412 Sculpture (3 hrs)
ART413 Painting (3 hrs)
ART414 Watercolor II (3 hrs)
ART419 Life Drawing (3 hrs)
ART421 History of Oriental Art (3 hrs)
ART422 Chinese and Japanese Art History (3 hrs)
ART423 Watercolor III (3 hrs)
ART424 Watercolor IV (3 hrs)
ART425 Arts of Africa (3 hrs)
ART426 Medieval Art History (3 hrs)
ART427 Baroque Art (3 hrs)
ART428 Seminar in 20th Century Art (3 hrs)
ART429 History of American Architecture (3 hrs)
ART430 Mesoamerican Art (3 hrs)
ART432 Drawing III (3 hrs)
ART436 Women in Art (3 hrs)
ART439 Life Drawing (3 hrs)
ART440 Art Since 1945 (3 hrs)
ART443 Jewelry (3 hrs)
ART455 Advanced Textiles (3 hrs)
ART456 Color, Dye and Fiber (3 hrs)
ART460 Advanced Graphic Design (3 hrs)
ART462 Image Making II (3 hrs)
ART464 Advanced Graphic Design Workshop (3 hrs)
ART480 Painting (3 hrs)
ART481 Painting (3 hrs)
ART487 Cooperative Education in Art (3 hrs)
```


## Department of Biology

Campus Address: 316 Mark Jefferson<br>Internet: www.emich.edu/public/biology/bioweb.htm<br>Telephone: 734.487.4242<br>E-mail: rwinning@emich.edu

See pages 174, 176, 201, 224, and 252 for course descriptions.

The Department of Biology offers programs leading to the master of science degree in biology, general biology, ecosystem biology (aquatic and terrestrial) and molecular/cellular biology. Applicants are encouraged to apply for a graduate assistantship, because the experience in teaching or research is a valuable part of the graduate program in biology. The master of science in general science is administered by the Department of Physics and Astronomy and includes some work in biology. For further information on the general science program, consult the Department of Physics and Astronomy section in this catalog.

The Department of Biology is located in the Mark Jefferson Science Building. This building provides modern laboratories and classrooms, an electron microscopy and photo-micrography suite, a molecular biology research suite, controlled-environment chambers, a walk-in cold room, animal-care rooms, photographic darkrooms, facilities for work in radiation biology, a radio-frequency screened area, and botanical and zoological museums. Other on-campus resources include a new Terrestrial and Aquatic Ecology Research Facility, which includes aquaria and greenhouses, and the Loesell Field Laboratory. The Huron River and nearby state game and recreation areas, as well as the Kresge Environmental Education Center at Lapeer, Michigan, are also accessible for fieldwork. Vans and boats are available for use by classes or in research.

## MASTER OF SCIENCE in Biology Programs

## Degree Admission

All concentrations in the biology master's program share the same general requirements for admission:

1. Obtain a baccalaureate from an accredited institution;
2. At least 20 hours in biology, with courses in genetics and physiology;
3. One year of general chemistry;
4. One year of organic chemistry, or one semester of organic chemistry and one semester of biochemistry;
5. One year of basic physics;
6. One semester of calculus or statistics;
7. An academic record of $B$ (3.0) or better during the junior and senior years;
8. Submission to the Office of Graduate Admissions of a completed departmental admission form, two letters of recommendation and a personal statement;
9. Submission to the Office of Graduate Admissions scores from the Graduate Record Examinations (GRE) general test (subject test not required); and
10. Meet admission requirements of the Graduate School.

Additional requirements for admission are stipulated for the ecology and cellular/molecular programs and are indicated under the descriptions of those programs.

## Conditional Admission

Students deficient in a requirement for degree admission to any of the programs may be granted conditional admission, subject to removal of the deficiency, while beginning graduate study. Hours earned in making up deficiencies are in addition to those normally required for the degree.

## Degree Requirements

At least 30 hours of approved graduate-level work is required, including a minimum of 24 hours within the Department of Biology. Two hours in seminar courses offered by the Department of Biology are required on all programs. To ensure scheduling of appropriate research experiences, internships and specialized course work, students must, by the end of their first semester, formulate a specific program of study in consultation with their faculty guidance committee. After approval, this program is kept on file by the graduate coordinator and may not be changed without written approval of the guidance committee.

In addition to the common requirements, students must opt for one of two alternative degree plans: thesis or nonthesis.

Thesis: This plan is most appropriate for students intending on a research career in biology. A candidate completes an original investigation under the supervision of a guidance (thesis) committee. This research must be suitable for publication, written in a form acceptable to the Graduate School and defended in an oral examination. The plan requires a minimum of 30 credit hours including a minimum of six credit hours and a maximum of 10 credit hours in research (thesis and independent study). A maximum of six hours may be earned in BIOL690/691/692 Thesis for thesis research.

Nonthesis: This plan is most appropriate for students intending on a professional career that does not emphasize research or interested in obtaining
a broader understanding of biological theory. All students in this plan must complete 34 credit hours of coursework. All candidates are encouraged to include research or practical experiences by enrolling for three hours in either cooperative education in Biology (BIOL/MICR597), practicum (BIOL686/ 687/688) or independent study (BIOL/BOTN/ZOOL697/698/699).

## Advising

Upon admission to the biology program, students will receive initial advising from the graduate coordinator, the principal adviser in their selected concentration, or the departmental graduate committee. Students are responsible for forming a permanent guidance committee and developing a program of study approved by that committee before registering for their second semester. After the first semester, if no program of study is on file, the guidance committee is not obligated to include any unapproved courses taken as part of the student's final program. The guidance committee for Thesis students will include at least three faculty members from the Department of Biology. The student usually selects the chair of the committee, and the other two members are chosen by the chair in consultation with the student. Additional members of the committee may be added from inside or outside the department by agreement between the chair and the student.

The guidance committee for Nonthesis students will consist of the principal graduate adviser for the selected concentration and the graduate coordinator. The graduate adviser, in consultation with the student, will prepare the student's program, which must be approved by the graduate coordinator. The student may select a third member of the guidance committee from faculty within the Department of Biology.

## PROFESSIONAL MASTER OF SCIENCE in Bioinformatics (BINF)

See page 35 for Interdisciplinary studies listings.

## MASTER OF SCIENCE in Ecosystem Biology (ECSY)

The master of science in ecology and organismal biology prepares students for research and teaching careers in such fields as aquatic ecology, terrestrial ecology, evolutionary biology, behavioral ecology and physiological ecology. It provides background for students entering doctoral programs in diverse areas of plant, animal and microbial ecology. It also prepares research personnel for careers with government agencies or private companies concerned with the protection or management of aquatic and terrestrial ecosystems. The program stresses the development of research skills, taxonomic expertise, field and laboratory methods and their application to both theoretical and applied ecology.

## Course Requirements

This concentration in ecology and organismal biology requires a minimum of 30 credit hours for thesis students and 34 credit hours for nonthesis students. As many as six hours may be taken outside of the Department of Biology as cognates. All courses in the program of study must be approved by the student's guidance committee.

```
Required Courses.
```

$\qquad$

```
    BIOL593 Seminar (1 hr)
    BIOL593 Seminar (1 hr)
    BIOL509 Statistics for Biologists (3 hrs)
    Thesis students must select a minimum of six hours of research:
        BIOL690/691/692 Thesis (1/2/3 hrs)
        BIOL/BOTN/MICR/ZOOL697/698/699 Independent Study
            (1/2/3 hrs)
```

Restricted Elective Courses ...................................................8-14 hours
Thesis students must select a minimum of three and nonthesis students must select a minimum of five from the following:

BIOL412 Biogeography (3 hrs)
BIOL522 Limnology (3 hrs)
BIOL535 Wetlands Ecosystems (3 hrs)
BIOL536 Terrestial Ecosystems (3 hrs)
BOTN552 Aquatic Plants (3 hrs)
ZOOL439 Animal Physiological Ecology (3 hrs)
ZOOL502 Animal Behavior (2 hrs)
Elective Courses.
11-15 hours
Elective courses to be selected in consultation with a graduate adviser. Nonthesis students must include a minimum of two taxonomic field courses, as listed in the Graduate Catalog.

Cognate Courses.
.0-6 hours
Up to six credit hours selected in consultation with graduate adviser.
Program Total
30-34 hours

## MASTER OF SCIENCE in Biology General (BIOG)

This program provides students with the opportunity to design a master of science program that meets their unique needs. As such, it is able to accommodate students with a wide range of backgrounds and career goals. It may be particularly suitable in providing additional background in biology for secondary teachers, preparing a broad background for students interested in community college teaching, and for students intent on entering into other professional careers.

## Course Requirements

This concentration is general biology requires a minimum of 30 credit hours for thesis students and 34 credit hours for nonthesis students. As many as six hours may be taken outside of the Department of Biology as cognates. All courses in the program of study must be approved by the student's guidance committee.

## Required Courses....................................................................2-8 hours <br> BIOL593 Seminar ( 1 hr ) <br> BIOL693 Seminar ( 1 hr ) <br> Thesis students must select a minimum of six hours of research: <br> BIOL690/691/692 Thesis (1/2/3 hrs) <br> BIOL/BOTN/MICR/ZOOL697/698/699 Independent Study ( $1 / 2 / 3 \mathrm{hrs}$ ) <br> Restricted Elective Courses . 22-32 hours <br> 22 to 32 credit hours selected in consultation with the graduate adviser.

Cognate Courses.
..0-6 hours
Up to six hours selected in consultation with the graduate adviser.
Program Total
30-34 hours

## MASTER OF SCIENCE IN Molecular/Cellular Biology (MCBI)

This program prepares students to pursue research and teaching careers in molecular and cellular biology. In addition to the general requirements stated for admission to the Master of Science in Biology stated above, this concentration requires the following for admission:

1. One year of general biology or equivalent (replaces twenty hours in biology);
2. A course in genetics and a course in physiology;
3. A course in biochemistry with laboratory; and
4. Two semesters of calculus or equivalent.

If a statistics course was not previously taken, then BIOL509 Statistics for Biologists must be taken as part of the program of study. A course in physical chemistry and a course in microbiology are highly recommended.

## Course Requirements

The concentration in molecular/cellular biology requires a minimum of 30 credit hours for thesis students and 34 credit hours for nonthesis students. As many as six hours may be taken outside of the Department of Biology as cognates. All courses in the program of study must be approved by the student's guidance committee.

```
Required Courses.
```

$\qquad$

``` 11-17 hours
    BIOL593 Seminar ( 1 hr )
    BIOL593 Seminar ( 1 hr )
    BIOL526 Immunology (3 hrs)
    BIOL540 Cell Biology (3 hrs)
    BIOL542 Molecular Genetics (3 hrs)
    Thesis students must select a minimum of six hours of research:
        BIOL690/691/692 Thesis ( \(1 / 2 / 3 \mathrm{hrs}\) )
        BIOL/BOTN/MICR/ZOOL697/698/699 Independent Study
                ( \(1 / 2 / 3 \mathrm{hrs}\) )
```

Restricted Elective Courses
13-23 hours
13 to 23 credit hours selected in consultation........................................ with the graduate adviser. At
least five hours must include research methodology courses.
Cognate Courses.
$\qquad$ .0-6 hours Up to six credit hours selected in consultation with graduate adviser.

Program Total 30-34 hours

## GRADUATE CERTIFICATE IN Bioinformatics (BINF)

See page 35 for Interdisciplinary studies listings.

## Graduate Certificate in Water Resources (WTRS)

See page 35 for Interdisciplinary studies listings.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form to the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

## Biology

BIOL401 Genome Analysis (4 hrs)
BIOL403 Methods and Materials for Teaching Biology (3 hrs)
BIOL406 Nature of Science (1 hr)
BIOL412 Biogeography (2 hrs)
*BIOL413 Animal and Plant Preservation Techniques (1 hr)
BIOL461 Oncology (3 hrs)

## Botany

BOTN404 Mycology (3 hrs)
BOTN412 Plant Anatomy (3 hrs)
BOTN442 Plant Physiology (3 hrs)
BOTN445 Plant Biotechnology (3 hrs)

Microbiology
MICR442 Microbial Ecology (3 hrs)
MICR444 Microbial Physiology (3 hrs)

## Zoology

ZOOL417 Neuroanatomy (3 hrs)
ZOOL431 Comparative Anatomy of Vertebrates ( 4 hrs )
ZOOL439 Physiological Ecology (3 hrs)
ZOOL445 Concepts in Animal Physiology (3 hrs)
ZOOL462 Parasitology (3 hrs)
Note:

* Denotes technique courses


# Department of Chemistry 

Campus Address: 225 Mark Jefferson Internet: http://chemistry.emich.edu

Telephone: 734.487.0106
E-mail: wade.tornquist@emich.edu
See page 177 for course descriptions.

## MASTER OF SCIENCE in Chemistry (CHM)

This program provides advanced study in chemistry for individuals who are currently employed in chemistry-related industrial or governmental positions, or desire professional training before entering the job market or a doctoral program.

## Admission Requirements

1. An undergraduate degree with a major or a strong minor (approximately 25 hours) in chemistry.
2. Advanced undergraduate courses corresponding to CHEM371/373, CHEM361 or CHEM461, CHEM463/465, and CHEM481, along with either CHEM432 or CHEM451/452. The graduate coordinator may use examinations to ascertain competency and the need for remedial work in any deficient areas. A maximum of four credit hours of graduate credit will be allowed for courses taken to correct deficiencies.
3. One year of calculus-based college physics (PHY223, PHY224), linear algebra and calculus through multivariable calculus.
4. Satisfaction of the Graduate School's admission requirements.
5. Submission of Graduate Record Examinations (GRE) general test scores.

## Degree Requirements

Students in this program follow either the Thesis Plan or the Non-Thesis Plan. Each includes a research seminar and a research experience, a course in chemical literature and four courses to satisfy distribution requirements, and additional courses to complete the stated minimum number of hours.

[^1]
## Non-Thesis Plan

This plan requires satisfactory completion of a minimum of 34 hours of graduate credit. It is intended for the part-time student whose professional experience constitutes a reasonable substitute (as determined by the graduate committee) for the laboratory research of the thesis plan.

## Course Requirements

The M.S. in chemistry requires the completion of 30 to 34 hours of course work to be distributed among required courses, distribution requirement courses, elective courses, a research requirement and cognate courses as follows:

```
Required Courses
```

$\qquad$

``` CHEM610 Information Retrieval in Chemistry ( 1 hr ) CHEM693 Seminar in Chemistry ( 1 hr ) and attendance at department seminars ( 1 hr )
Distribution Requirement Courses.
``` \(\qquad\)
``` 8-12 hours Select at least one course from four of the following six areas of chemistry (courses are listed below). A grade point average of B or better in all distribution courses is required.
```


## I. Analytical

```
CHEM581 Advanced Analytical Chemistry (3 hrs)
```


## II. Inorganic

```
CHEM632 Structural Inorganic Chemistry (3 hrs)
III. Organic
CHEM571 Advanced Organic Chemistry (3 hrs)
CHEM574 Advanced Organic Chemistry Topics (2 hrs)
IV. Physical
CHEM561 Quantum Chemistry and Spectroscopy (2 hrs) CHEM562 Statistical Mechanics and Chemical Kinetics (2 hrs)
```


## V. Biochemistry

```
CHEM553 Enzymology (2 hrs)
CHEM555 Neurochemistry (3 hrs)
CHEM655 Advanced Biochemistry Topics (2 hrs)
```


## VI. Polymer

```
CHEM665 Physical Chemistry of Polymers (2 hrs) CHEM675 Advanced Organic Polymer Chemistry (3 hrs)
``` 2 hours

Elective Courses 6-20 hours
Six to 20 hours selected from among graduate courses at the 500- or 600level, or from approved 400 -level CHEM courses. Courses are selected in consultation with the graduate coordinator and student's thesis research directors.

\section*{Research Requirement}
\(\qquad\) 6-10 hours Thesis Plan

CHEM697/698/699 (6-10 hrs) Research in Chemistry (1/2/3 hrs). An approved written thesis and an oral presentation of the research to the Department of Chemistry is required.
Non-Thesis Plan
Students must complete a satisfactory written report, in thesis style, on a project carried out in the student's job in the off-campus setting. Industrial research experience must be judged by the department head and the graduate committee to be a reasonable substitute for a typical academic research project. Students will also present to the chemistry faculty a seminar that meets the standards for the research seminar set out in the department's Graduate Student Handbook.

Cognate Courses .0-6 hours
Zero to six hours selected from courses outside the Department of Chemistry in consultation with the graduate coordinator. Cognates chosen from 400 -level courses will be included in the nine-hour limit.

Program Total 30-34 hours

\section*{Undergraduate Courses for Graduate Credit}

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

\author{
CHEM411 Toxicology I (2 hrs) \\ CHEM412 Toxicology II (2 hrs) \\ CHEM413 Toxicology Laboratory (2 hrs) \\ CHEM414 Regulatory Toxicology (2 hrs) \\ CHEM415 Environmental Chemistry (3 hrs) \\ CHEM432 Advanced Inorganic Chemistry (3 hrs) \\ CHEM433 Inorganic-Organic Synthesis Laboratory (2 hrs) \\ CHEM451 Biochemistry I (3 hrs) \\ CHEM452 Biochemistry II (3 hrs) \\ CHEM453 Biochemistry Laboratory (2 hrs) \\ CHEM465 Quantum and Statistical Mechanics (3 hrs) \\ CHEM475 Introduction to Polymer Chemistry (3 hrs) \\ CHEM481 Instrumental Analysis (4 hrs) \\ CHEM485 Introduction to Radiotracer Techniques (2 hrs) \\ CHEM487/488/489 Cooperative Education in Chemistry (1/2/3 hrs)
}

\title{
DEPARTMENT OF Communication and Theatre Arts
}

\author{
Campus Address: 124 Quirk \\ Internet: www.emich.edu/public/cta/cta.html \\ Telephone: 734.487.3131 \\ E-mail: dennis.beagen@emich.edu
}

See page 186 for course descriptions.

The Department of Communication and Theatre Arts provides graduate programs leading to the degrees of master of fine arts in drama/theatre for the young, master of arts in communication, master of arts in theatre arts and master of arts in drama/theatre for the young. Details of each of these programs may be obtained from the department or coordinator of advising.

\section*{Objectives}
1. Advancing students' mastery of their creative areas of specialization.
2. Enabling students to acquire and apply essential research tools.
3. Preparing students for careers and further study.

The department awards graduate assistantships to students with strong backgrounds in communication and/or theatre arts and an overall undergraduate GPA of at least 3.0. Graduate assistants help teach the Fundamentals of Speech courses or assist with co-curricular programs in communication, drama/theatre for the young, interpretation/performance studies or theatre arts.

\section*{MASTER OF FINE ARTS in Drama/ Theatre for the Young (DTY)}

This terminal degree program prepares qualified students for careers involving drama/theatre for developmental purposes, as well as theatre arts for the young. Required core courses are supplemented by elective and cognate courses to achieve a well-rounded knowledge of developmental drama and theatre for the young.

\section*{Admission Requirements}

Applicants must:
1. Be admitted to the Graduate School and accepted into the program by the department;
2. Have a minimum overall undergraduate GPA of 2.75 , or 3.0 in the last half of the undergraduate program if the bachelor's degree was earned before 1975; an overall GPA of 3.0 is required if the bachelor's degree was earned since 1975. Exceptions to this requirement can be made if at least 15 hours of graduate work have already been earned with a GPA of 3.0 or higher;
3. Send samples of previous work and have letters of recommendation sent;
4. Interview with at least one program faculty member;
5. Possess an appropriate foundation in undergraduate studies, with relevant extra-academic experiences taken into account, for the specific graduate focus chosen; and
6. In the case of international students, have a minimum TOEFL score (see the Admissions Web site for minimum scores).

\section*{Program Requirements}

Students must:
1. Early in their graduate work, prepare an official program of study in consultation with an assigned graduate adviser and file it with the Graduate School;
2. Meet all conditions stipulated upon entry into the program; and
3. Complete, with an overall GPA of at least 3.0, a minimum of 60 hours of approved course work beyond the bachelor's degree, or a minimum of 30 hours beyond an appropriate master's degree, as identified in the official program of study.

\section*{Course Requirements}

The M.F.A. in drama/theatre for the young requires the completion of 60 hours of course work to be distributed among required courses, required research courses, elective courses and internship courses as follows:
```

Required Courses....................................................................... }27\mathrm{ hours
CTAR429 History and Theory of Developmental
Drama/Theatre (3 hrs)
CTAR501 Creative Drama and Role-Playing (2 hrs)
CTAR504 Oral Interpretation of Literature and Language with the
Young (2 hrs)
CTAR522 TIE: Theatre-in-Education (2 hrs)
CTAR529 Producing Theatre for Young Audiences (3 hrs)
CTAR565 Studies in Drama/Theatre for the Young (2 hrs)
CTAR606 Colloquium in Communication and Theatre Arts (1 hr)
CTAR608 Colloquium in Communication and Theatre Arts (3 hrs)
CTAR627 The Playwright and the Young Audience (3 hrs)
CTAR657 Improvisation (3 hrs)
CTAR658 Theatre for Children (3 hrs)

```
Required Research Courses.................................................................. 8 hours
    CTAR677 Research Techniques (2 hrs)
    CTAR690/691/692 Degree Requirement (6 hrs)

\section*{Elective Courses} . .15 hours Fifteen hours selected in consultation with the advis................................................... from with the department and from other departments.

Internship
.10 hours
CTAR686/687/688 Cooperative Education in Arts Management (1/2/3 hrs)

Program Total
60 hours

\section*{MASTER OF ARTS in Theatre Arts (THAR)}

This program prepares students with an undergraduate major or minor in theatre arts for careers in all levels of theatre or for further graduate study.

\section*{Admission Requirements}

Applicants must:
1. Be admitted to the Graduate School and accepted into the program by the department;
2. Have at least a minor or the equivalent in communication, theatre arts, or drama/theatre for the young;
3. Have a minimum overall undergraduate GPA of 2.5 , or 2.75 in the last half of undergraduate work; and
4. In the case of international students, have a minimum TOEFL score (see the Admissions Web site for minimum scores).

\section*{Program Requirements}

Students must:
1. Early in their graduate work, prepare an official program of study in consultation with an assigned graduate adviser and file it with the Graduate School;
2. Successfully meet all conditions stipulated upon entry into the program; and
3. Complete, with an overall GPA of at least 3.0, a minimum of 30 hours of approved course work as identified in the official program of study.

\section*{Course Requirements}

The M.A. in theatre arts requires the completion of 30 hours of course work to be distributed among required courses and elective courses as follows:

\section*{Required Courses.. \\ 3-5 hours \\ CTAR677 Research Techniques (2 hrs) \\ One course from the following: \\ CTAR690/691/692 Degree Requirement (1/2/3 hrs)}

Elective Courses................................................................ 25-27 hours
Twenty-five to 27 hours selected from within the department in consultation with the graduate adviser.

Program Total 30 hours

\section*{MASTER OF ARTS in Arts Administration (THAD)}

This program is designed for individuals with strong commitment to the arts and a sincere interest in marketing, finance and information management. Applicants should have an undergraduate degree in the arts or equivalent experience.

Arts administration students develop skills in accounting, advertising, labor relations and other areas of business through studies in management and communication, combined with specialized training in arts administration, law and public policy, and marketing. Because the arts administrator must have aesthetic sensitivity, the program provides advanced study in theatre and the opportunity for professional internships.

\section*{Admission Requirements}

Applicants must:
1. Be admitted to the Graduate School and accepted into the program by the department;
2. Have at least a minor or the equivalent in communication, theatre arts, or drama/theatre for the young;
3. Have a minimum overall undergraduate GPA of 2.5 , or 2.75 in the last half of undergraduate work; and
4. In the case of international students, have a minimum TOEFL score (see the Admissions Web site at www.emich.edu/admissions for minimum scores).

\section*{Program Requirements}

Students must:
1. Early in their graduate work, prepare an official program of study in consultation with an assigned graduate adviser and file it with the Graduate School;
2. Successfully meet all conditions stipulated upon entry into the program; and
3. Complete, with an overall GPA of at least 3.0 , a minimum of 30 hours of approved course work as identified in the official program of study.

\section*{Course Requirements}

The M.A. in theatre arts administration requires the completion of 30 hours of course work to be distributed among required courses and elective courses as follows:
Required Courses

\(\qquad\)
 3-5 hours
 CTAR677 Research Techniques (2 hrs)
 One course from the following:
 CTAR690/691/692 Degree Requirement (1/2/3 hrs)

\section*{Elective Courses}
 25-27 hours
 Twenty-five to 27 hours selected from within the department in consul
tation with the graduate adviser.

Program Total 30 hours

\section*{MASTER OF ARTS in Communication (COMM)}

This program, for students who have completed undergraduate degrees with majors or minors in communication or speech, prepares them for careers demanding sophisticated knowledge of human communication or for doctoral graduate work. Interpersonal, small-group, organizational, intercultural and speech communication are stressed. Students are encouraged to take six hours of cognate courses as part of the required program.

\section*{Admission Requirements}

Applicants must:
1. Be admitted to the Graduate School and accepted into the program by the department;
2. Have at least a minor or the equivalent in communication;
3. Have a minimum overall undergraduate GPA of 2.7 (exceptions on recommendation of area faculty); and
4. In the case of international students, have a minimum TOEFL score (see the Admissions Web site for minimum scores).

\section*{Program Requirements}

Students must:
1. Early in their graduate work, prepare an official program of study in consultation with an assigned graduate adviser and file it with the Graduate School;
2. Successfully meet all conditions stipulated upon entry into the program; and
3. Complete, with an overall GPA of at least 3.0 , a minimum of 30 hours of approved course work as identified in the official program of study.

\section*{Course Requirements}

The M.A. in communication requires the completion of 30 hours of course work distributed among required courses, elective courses and cognate courses as follows:
```

Required Courses. .6-8 hours CTAC600 Communication Inquiry (3 hrs) CTAC677 Research Techniques in Communication (2 hrs) CTAC690/691/692 Degree Requirement (1/2/3 hrs)

```

\section*{Elective Courses}

15-24 hours
Fifteen to 24 hours selected.............................................................. from within the department in consultation with the graduate adviser (minimum of 15 hours of theory courses required).

Cognate Courses.
.0-6 hours
Zero to six hours selected from other areas or departments in consultation with the graduate adviser.

Program Total 30 hours

\section*{MASTER OF ARTS in Interpretation/Performance Studies (INPS)}

This program offers advanced study of the nature and interaction of performance, performance arts, and texts and contexts. Through performance and scholarship, the program addresses literary study and aesthetics, cultural diversity, and postmodern performance acts and critical perspectives.

\section*{Admission Requirements}

Applicants must:
1. Be admitted to the Graduate School and accepted into the program by the department;
2. Have at least a minor or the equivalent in communication;
3. Have a minimum overall undergraduate GPA of 2.5 (exceptions on recommendation of area faculty); and
4. In the case of international students, have a minimum TOEFL score (see the Admissions Web site for minimum scores).

\section*{Program Requirements}

Students must:
1. Early in their graduate work, prepare an official program of study in consultation with an assigned graduate adviser and file it with the Graduate School;
2. Successfully meet all conditions stipulated upon entry into the program; and
3. Complete, with an overall GPA of at least 3.0, a minimum of 30 hours of approved course work as identified in the official program of study.

\section*{Course Requirements}

The M.A. in communication requires the completion of 30 hours of course work distributed among required courses, elective courses and cognate courses as follows:

\footnotetext{
Required Courses.
s...................................................................3-5 hours CTAC677 Research Techniques in Communication (2 hrs) CTAC690/691/692 Degree Requirement (1/2/3 hrs)
}
Elective Courses. \(\qquad\) 19-27 hours Nineteen to 27 hours selected from within the department in consultation with the graduate adviser (minimum of 15 hours of theory courses required).

\section*{Cognate Courses. \\ \(\qquad\) .0-6 hours Zero to six hours selected from other areas or departments in consultation with the graduate adviser.}

Program Total 30 hours

\section*{MASTER OF ARTS in Drama/ Theatre for the Young (DTY)}

This program prepares students to enter careers involving work in drama/ theatre and communications with and for children, young people and intergenerational groups.

\section*{Admission Requirements}

Applicants must:
1. Be admitted to the Graduate School and accepted into the program by the department;
2. Have an undergraduate GPA of 2.5 , or 2.75 in the last half of the undergraduate program;
3. Possess an appropriate foundation in undergraduate studies; and
4. In the case of international students, have a minimum TOEFL score (see the Admissions Web site for minimum scores).

\section*{Program Requirements}

Students must:
1. Early in their graduate work, prepare an official program of study in consultation with an assigned graduate adviser and file it with the Graduate School;
2. Successfully meet all conditions stipulated upon entry into the program; and
3. Complete, with an overall GPA of at least 3.0, a minimum of 30 hours of approved course work as identified in the official program of study.

\section*{Course Requirements}

The M.A. in drama/theatre for the young requires the completion of 30 hours of course work to be distributed among required courses and elective courses as follows:

\section*{Required Courses................................................................... 3-5 hours CTAR677 Research Techniques (2 hrs) CTAR690/691/692 Degree Requirement (1/2/3 hrs)}

\section*{Elective Courses}

25-27 hours
Twenty-five to 27 hours selected in consultation with the graduate adviser.
Program Total \(\qquad\) 30 hours

\section*{Undergraduate Courses for Graduate Credit}

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

\section*{Activity Courses:}

CTAA466 Forensics (1 hr)
CTAA467 Theatre Practice ( 1 hr )
CTAA468 Interpretation ( 1 hr )
CTAA479 Special Topics (3 hrs)

\section*{Communication:}

CTAC440 Public Discourse Analysis (3 hrs)
CTAC460 Theories of Speech Criticism (3 hrs)
CTAC475 Research in Speech Communication (3 hrs)
CTAC485 Communication Theory (3 hrs)
Interpretation/Performance Studies:
CTAO402 Voice Development ( 1 hr )
CTAO404 Dynamic Speaking Skills (3 hrs)
CTAO405 Voice and Dialects (3 hrs)
CTAO410 Oral Interpretation of Shakespeare (3 hrs)
CTAO411 Advanced Problems in Interpretation (3 hrs)
CTAO412 Oral Interpretation of Poetry (3 hrs)
Theatre and Drama:
CTAR429 History and Theory of Developmental Drama/Theatre (3 hrs)
CTAR450 History of the Theatre to 1642 (3 hrs)
CTAR451 History of the Theatre: 1642 to the Present ( 3 hrs )
CTAR452 Arts Management (3 hrs)
CTAR453 Marketing the Arts (3 hrs)
CTAR 454 Law, Public Policy, and the Arts (3 hrs)
CTAR457 Auditions (2 hrs)
CTAR458 Acting/Directing/Production Intensive I (3 hrs)
CTAR459 Acting/Directing/Production Intensive (2 hrs)
CTAR461 Musical Theatre Acting (2 hrs)
CTAR462 Directors on Directing (2 hrs)
CTAR463 The American Musical Stage ( 3 hrs )
CTAR464 Style for the Actor (3 hrs)
Telecommunication and Film:
CTAT431 Advanced Radio Production and Direction (3 hrs)
CTAT432 Advanced Television Production and Direction (3 hrs)
CTAT445 Film Theory and Criticism (3 hrs)
CTAT446 Contemporary Problems in Telecommunications (3 hrs)
CTAT447 Radio-Television Station Management (3 hrs)
Additional 400-level undergraduate courses also are available to graduate students under special circumstances. On this matter the student should have a clear understanding with the department and the Graduate School before expecting to use such courses toward a master of arts or a master of fine arts in the Department of Communication and Theatre Arts.

\section*{Department of Computer Science}

Campus Address: 511-A Pray-Harrold
Internet: www.emich.edu/compsci
Telephone: 734.487.1063
E-mail: computer.science@emich.edu
See page 180 for course descriptions.

The Department of Computer Science offers a master of science in computer science, a master of science in bioinformatics, a graduate certificate in artificial intelligence, a graduate certificate in bioinformatics, a secondary teacher certification endorsement and the double master's degree program
with the Fachhochschule Karlsruhe, Germany. The department collaborates closely with the Department of Mathematics in support of the master of arts in mathematics - computer science (see Department of Mathematics listing in this catalog).

Several graduate assistantships in computer science are awarded each year through the Graduate School office. For additional information, contact the department.

Upon admission to a program, the student must meet with the graduate coordinator to arrange a program of study.

\section*{MASTER OF SCIENCE in Computer Science (CSC)}

The master of science in computer science provides a flexible and rigorous education in the advanced principles of computer science. Graduates are prepared for employment in business, government organizations, educational institutions and other enterprises.

\section*{Admission Requirements}

Applicants must:
1. Meet Graduate School admission requirements;
2. Have at least 18 hours of 200 -level (or above) computer science courses, including data structures, programming languages, computer organization and operating systems, and competency in a high-level programming language such as \(\mathrm{C}, \mathrm{C}++\), or Java; A major in computer science is preferred. Students must have a minimum GPA of 2.75 in computer science course work; and
3. Have completed courses in discrete mathematics, probability and statistics, linear algebra and calculus (two semesters).

Statement of the meaning of the three levels of admissions assessment in the prerequisites for graduate courses:
```

Each assessment has two possible scores: 0 : unsatisfactory
1: satisfactory.

```

ADM: Student satisfies the admissions requirements to the computer science master's degree program, CSC.
ADP: Student satisfies the ADM admissions assessment, and student has completed COSC444 Foundations of Automata and Languages or COSC541 Automata, Computability and Formal Languages or equivalent.
UGM: The student has completed an undergraduate computer science major that includes senior level courses in computer architecture, database and operating systems.

\section*{Degree Requirements}

Students may follow one of three plans: plan A, with practicum; plan B, with research study; or plan C, with thesis. Each plan requires 33 hours with at least nine hours in approved 600 -level computer science courses. At most nine hours of cognates ( 500 -level and 600 -level courses pre-approved by the graduate coordinator) may be credited toward the degree. At most nine hours of approved 400 -level courses taken for graduate credit may be counted. All students must satisfactorily complete (or have completed at the undergraduate level) at least one course in each of the following areas: operating system principles, network principles, database principles and theoretical computer science. All students must have an approved and current program of study.

\section*{Plan A: Practicum}

This plan requires a written exit examination and a capstone practicum course.

\footnotetext{
Required Course.
3 hours
COSC683 Software Engineering Practicum (3 hrs)
}
```

Elective Courses Category I.
.0-9 hours
Zero to nine hours selected in consultation with the graduate coordinator:
COSC405 Switching Theory (3 hrs)
COSC421 Systems Programming (3 hrs)
COSC422 Introduction to Microprocessors (3 hrs)
COSC423 Computer Operating Systems (3 hrs)
COSC439 Computing Network Principles (3 hrs)
*COSC444 Foundations of Automata and Languages (3 hrs)
COSC445 Compiler Construction (3 hrs)
COSC456 Microcomputer Graphics (3 hrs)
COSC461 Heuristic Programming (3 hrs)
COSC471 Database Principles (3 hrs)
COSC481 Software Engineering and Senior Project (3 hrs)

```
Elective Courses Category II................................................. 9-30 hours
    Nine to 30 hours, a minimum of nine hours must be taken at the 600-level:
        COSC511 Design and Analysis of Algorithms (3 hrs)
        COSC513 Formal Methods in Software Development (3 hrs)
        COSC522 Computer Communication Networks and
                Distributed Systems (3 hrs)
            COSC523 Advanced Computer Organization (3 hrs)
            COSC527 Wireless Networking Principles (3 hrs)
            *COSC541 Automata, Computability, and Formal
                Languages (3 hrs)
            COSC544 Programming in LISP ( 1 hr )
            COSC545 Programming in Prolog ( 1 hr )
            COSC552 Human-Computer Interaction (3 hrs)
            COSC556 Advanced Computer Graphics (3 hrs)
            COSC561 Artificial Intelligence (3 hrs)
            COSC571 Database Management Systems Design (3 hrs)
            COSC581 Software Design and Development ( 3 hrs )
            COSC582 Object-Oriented Design ( 3 hrs )
            COSC590/591/592 Special Topics ( \(1 / 2 / 3 \mathrm{hrs}\) )
            COSC612 Parallel Algorithms (3 hrs)
            COSC623 Advanced Operating Systems (3 hrs)
            COSC625 Real Time Processing (3 hrs)
            COSC631 ECommerce and Web Database (3 hrs)
            COSC645 Advanced Compiler Construction (3 hrs)
            COSC653 Software Requirements Engineering (3 hrs)
            COSC661 Automated Reasoning (3 hrs)
            COSC662 Seminar in Computer Science ( 1 hr )
            COSC663 Fuzzy Logic and Design of Fuzzy Systems (3 hrs)
            COSC667 Machine Learning and Data Mining (3 hrs)
            COSC671 Advanced Topics in DBMS (3 hrs)
            COSC679/680/681 Special Topics ( \(1 / 2 / 3 \mathrm{hrs}\) )
            COSC685 Software Quality Assurance (3 hrs)

Elective Courses Category III \(\qquad\)
    Zero to three hours selected in consultation with the graduate coordinator:
        COSC597/598/599 Independent Study ( \(1 / 2 / 3 \mathrm{hrs}\) )
            COSC697/698/699 Independent Study (1/2/3 hrs)

Cognate Courses (pre-approved, 500- and 600-level)................0-9 hours Zero to nine hours selected in consultation with the graduate coordinator.

Program Total 33 hours

Note:
*Graduate students in the computer science masters program may not count on their program of study both of the following courses: COSC444 and COSC541

\section*{Plan B: Research Study}

Plan B requires completion of a research project. A committee of three members, chaired by the student's research adviser, is responsible for confirming the student's preparedness, approving the topic and readings, and accepting the research report. One committee member may be from outside the department. The research report must be publicly presented after approval by the committee.
```

Required Courses .3-4 hours
COSC690/691/692 Thesis (1/2/3 hrs)
Elective Courses Category I.

``` \(\qquad\)
``` .0-9 hours
Zero to nine hours selected in consultation with the graduate coordinator: COSC405 Switching Theory (3 hrs) COSC421 Systems Programming (3 hrs) COSC422 Introduction to Microprocessors (3 hrs)
COSC423 Computer Operating Systems (3 hrs)
COSC439 Computing Network Principles (3 hrs)
*COSC444 Foundations of Automata and Languages (3 hrs)
COSC445 Compiler Construction (3 hrs)
COSC456 Microcomputer Graphics (3 hrs)
COSC461 Heuristic Programming (3 hrs)
COSC471 Database Principles (3 hrs)
COSC481 Software Engineering and Senior Project (3 hrs)
```

Elective Courses Category II $\qquad$ ..9-30 hours
Nine to 30 hours, a minimum of nine hours must be taken at the 600-level: COSC511 Design and Analysis of Algorithms (3 hrs)
COSC513 Formal Methods in Software Development (3 hrs)
COSC522 Computer Communication Networks and Distributed Systems ( 3 hrs )
COSC523 Advanced Computer Organization ( 3 hrs )
COSC527 Wireless Networking Principles (3 hrs)
*COSC541 Automata, Computability, and Formal Languages (3 hrs)
COSC544 Programming in LISP (1 hr)
COSC545 Programming in Prolog ( 1 hr )
COSC552 Human-Computer Interaction (3 hrs)
COSC556 Advanced Computer Graphics (3 hrs)
COSC561 Artificial Intelligence (3 hrs)
COSC571 Database Management Systems Design (3 hrs)
COSC581 Software Design and Development (3 hrs)
COSC582 Object-Oriented Design ( 3 hrs )
COSC590/591/592 Special Topics ( $1 / 2 / 3 \mathrm{hrs}$ )
COSC612 Parallel Algorithms ( 3 hrs )
COSC623 Advanced Operating Systems (3 hrs)
COSC625 Real Time Processing (3 hrs)
COSC631 ECommerce and Web Database (3 hrs)
COSC645 Advanced Compiler Construction ( 3 hrs )
COSC653 Software Requirements Engineering (3 hrs)
COSC661 Automated Reasoning ( 3 hrs )
COSC662 Seminar in Computer Science ( 1 hr )
COSC663 Fuzzy Logic and Design of Fuzzy Systems (3 hrs)
COSC667 Machine Learning and Data Mining (3 hrs)
COSC671 Advanced Topics in DBMS (3 hrs)
COSC679/680/681 Special Topics (1/2/3 hrs)
COSC685 Software Quality Assurance (3 hrs)
Elective Courses Category III $\qquad$ .0-3 hours
Zero to three hours selected in consultation with the graduate coordinator:
COSC597/598/599 Independent Study ( $1 / 2 / 3 \mathrm{hrs}$ )
COSC697/698/699 Independent Study ( $1 / 2 / 3$ hrs)
Cognate Courses (pre-approved, 500 -and $600-\mathrm{level}$ ) $\qquad$ .0-9 hours
Zero to nine hours selected in consultation with the graduate coordinator.
Program Total .33 hours

Note:
*Graduate students in the computer science masters program may not count on their program of study both of the following courses: COSC444 and COSC541

## Plan C: Thesis

Plan C requires completion of a thesis for six hours. A committee of three members, chaired by the student's research adviser, is responsible for confirming the student's preparedness, approving the topic and readings, and
accepting the thesis. One committee member may be from outside the department. The thesis must be publicly presented after approval by the committee.

Required Courses: 6 hours
COSC690/691/692 Thesis (1/2/3 hrs)
Elective Courses Category I.
0-9 hours
Zero to nine hours selected in consultation with the graduate coordinator. COSC405 Switching Theory (3 hrs) COSC421 Systems Programming (3 hrs) COSC422 Introduction to Microprocessors (3 hrs)
COSC423 Computer Operating Systems (3 hrs)
COSC439 Computing Network Principles (3 hrs)
*COSC444 Foundations of Automata and Languages (3 hrs)
COSC445 Compiler Construction (3 hrs)
COSC456 Microcomputer Graphics (3 hrs)
COSC461 Heuristic Programming (3 hrs)
COSC471 Database Principles (3 hrs)
COSC481 Software Engineering and Senior Project (3 hrs)
Elective Courses Category II $\qquad$ .9-30 hours
Nine to 30 hours, a minimum of six hours must be taken at the 600-level COSC511 Design and Analysis of Algorithms (3 hrs)
COSC513 Formal Methods in Software Development (3 hrs)
COSC522 Computer Communication Networks and Distributed Systems (3 hrs)
COSC523 Advanced Computer Organization (3 hrs)
COSC527 Wireless Networking Principles (3 hrs)
*COSC541 Automata, Computability, and Formal Languages (3 hrs)
COSC544 Programming in LISP (1 hr)
COSC545 Programming in Prolog ( 1 hr )
COSC552 Human-Computer Interaction (3 hrs)
COSC556 Advanced Computer Graphics (3 hrs)
COSC561 Artificial Intelligence (3 hrs)
COSC571 Database Management Systems Design (3 hrs)
COSC581 Software Design and Development ( 3 hrs )
COSC582 Object-Oriented Design (3 hrs)
COSC590/591/592 Special Topics ( $1 / 2 / 3 \mathrm{hrs}$ )
COSC612 Parallel Algorithms (3 hrs)
COSC623 Advanced Operating Systems (3 hrs)
COSC625 Real Time Processing (3 hrs)
COSC631 ECommerce and Web Database (3 hrs)
COSC645 Advanced Compiler Construction (3 hrs)
COSC653 Software Requirements Engineering (3 hrs)
COSC661 Automated Reasoning ( 3 hrs )
COSC662 Seminar in Computer Science ( 1 hr )
COSC663 Fuzzy Logic and Design of Fuzzy Systems (3 hrs)
COSC667 Machine Learning and Data Mining (3 hrs)
COSC671 Advanced Topics in DBMS (3 hrs)
COSC679/680/681 Special Topics ( $1 / 2 / 3 \mathrm{hrs}$ )
COSC685 Software Quality Assurance (3 hrs)
Elective Courses Category III
.0-3 hours
Zero to three hours selected in consultation with the graduate coordinator.
COSC597/598/599 Independent Study ( $1 / 2 / 3 \mathrm{hrs}$ )
COSC697/698/699 Independent Study (1/2/3 hrs)
Cognate Courses (pre-approved, 500 -and $600-\mathrm{level}$ ) $\qquad$ .0-9 hours
Zero to nine hours selected in consultation with the graduate coordinator.
Program Total 33 hours

Note:
${ }^{*}$ Graduate students in the computer science masters program may not count on their program of study both of the following courses: COSC444 and COSC541

# PROFESSIONAL MASTER OF SCIENCE in Bioinformatics (BINF) 

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE in Artificial Intelligence (AI)

Artificial intelligence (AI), viewed from the perspective of computer science, attacks problems that elude solution by traditional, provably-correct algorithms. Often borrowing ideas from human intelligence, AI is applied to such tasks as expert reasoning, game-playing, pattern recognition, robotics, natural language and evolution of problem solutions through selective processes. AI methods are employed in other areas of computer science, including networking and software engineering. The graduate certificate in artificial intelligence prepares the student to develop AI-related applications in industry, to keep abreast of new research developments and to pursue more advanced academic study in the field.

## Admission Requirements <br> Applicants must:

1. Have a minimum GPA of 2.75 in all prior computer science courses;
2. Completion of programming classes up to and including Data Structures; and
3. Completion of one semester of discrete mathematical structures.
Program Requirements
4. No more than one 400 -level course may be used on the graduate cer
tificate program.
5. A minimum GPA of 3.0 (B) must be achieved.
6. Credits earned for the graduate certificate may count, subject to ap
plicability, toward a graduate degree.
7. All requirements must be completed within three years from the
time of first enrollment.

Required Courses...................................................................... 3 hours
COSC561 Artificial Intelligence (3 hrs)

Restricted Electives ....................................
Choose 3 courses from the following list:

COSC562 Information Retrieval and Recommendation (3 hrs)
COSC661 Automated Reasoning ( 3 hrs )
COSC663 Fuzzy Logic and Design of Fuzzy Systems (3 hrs)
COSC667 Machine Learning and Data Mining (3 hrs)
COSC668 Evolutionary Programming (3 hrs)

Certificate Total 12 hours

## GRADUATE CERTIFICATE in Bioinformatics (BINF)

See page 35 for Interdisciplinary studies listings.

## Secondary Teacher Certification Endorsement

This program is intended for secondary school computer teachers already certified in other content areas. Successful completion of the program leads to a certificate endorsement in computer science.

## Admission Requirements

Students must satisfy requirements of the Graduate School and hold, or be eligible for, a current secondary teaching certificate issued by the state of Michigan Department of Education.

## Certificate Requirements

This certificate requires 23 hours of course work to be distributed as follows:
COSC101 Computers for the Non-specialist (3 hrs)
COSC111 Introduction to Programming (3 hrs)
COSC303 Applications in Computer Science ( 3 hrs )
COSC342 Programming Languages for Educators (3 hrs)
COSC506 Methods of Teaching Computer Science in the Secondary School (3 hrs)
COSC514 Fundamentals of Computer Science I (4 hrs)
COSC515 Fundamentals of Computer Science II (4 hrs)
Program Total ........................................................................ 23 hours

## Double Master’s Degree Program with Fachhochschule Karlsruhe, Germany (University of Applied Sciences)

## Purpose of the Program

The purpose of the Double Master's Degree Program is to enroll excellent students of both departments with two separate yet closely allied degrees, master of computer science, Department of Computer Science, Eastern Michigan University and master of computer science and multimedia studies, Fachbereich Informatik, Fachhochschule Karlsruhe-Hochschule fur Technik (Karlsruhe University of Applied Sciences).

## Admission to the Program

The Department of Computer Science at Eastern Michigan University (EMU) and the Fachbereich Informatik at Fachhochschule Karlsruhe Hochschule fur Technik (FHK-HT), henceforth labeled partner institutions, agree that admission into the Double Master's Degree Program requires strictly equivalent academic qualification in both institutions.

For admission into the Double Master's Degree Program with EMU as the home institution, EMU requires the equivalent of a four-year US bachelor's degree from an accredited college or university, suitable English language skills, and all qualifications as specified and deemed appropriate by the Graduate School and the Department of Computer Science.

For admission into the Double Master's Degree Program with FHKHT as the home institution, FHK-HT requires a bachelor's degree or a Diploma in Informatik or Wirtschaftsinformatik, suitable German and English language skills, and all qualifications as specified and deemed appropriate by the Fachbereich Informatik at FHK-HT.

A student who has been admitted into the Double Master's Degree Program at one partner institution must apply to the Double Master's Degree Program at the other partner institution for the completion of the international component of this program. Where the admission criteria are not easily translatable or not well articulated, reasonable judgements will be made by persons authorized and qualified to make them. An application to the partner institution shall be accompanied by a letter of recommendation for the student from the graduate coordinator in the department of the home institution that elaborates on the specific qualifications of that student for international study.

Graduation from the Double Master's Degree Program documents that the holder of the two degrees has completed all required coursework, has excelled under international conditions, has developed a global view of the field of computer science, and has become an outstanding computer scientist.

## Description of the Program Requirements

The partner institutions agree that the Double Master's Degree Program is based on a strict equivalence of credits and student performance. Successful completion of the Double Master's Degree Program and eligibility for the two degrees named above require the completion of a significant portion of both the two master's degree programs at the partner institutions as specified below.

Upon admission to the Double Master's Degree Program, a student must design a program of study approved by the graduate coordinator of the participating department. Every program of study must encompass a
minimum of four semesters of full-time study at the graduate level. At EMU four semesters are counted as the equivalent of 48 graduate credit hours, and at FHK-HT four semesters are counted as the equivalent of 12 six-hour blocks and one master's thesis seminar. The partner institutions therefore agree on the following framework for suitable programs of study within their respective master's degree programs in order to accommodate students for the Double Master's Degree Program.

A student admitted to the Double Master's Degree Program by the Department of Computer Science with EMU as the home institution will receive master's degrees from both institutions when the following requirements are fulfilled:

1. Satisfactory completion of six classes ( 18 credit hours) of graduate studies in the Department of Computer Science at EMU. The classes must appear on an approved Program of Study based on Plan B (Research Study). For the specific requirements consult with the double degree program adviser.
2. Satisfactory completion of one semester of graduate studies, including four blocks of Multimedia Studies in the Fachbereich Informatik at FHK-HT (the blocks must appear on an approved Program of Study). For the specific requirements consult with the double degree program adviser.
3. Satisfactory completion of a one-semester internship including a master's thesis directed by a faculty member in the Fachbereich Informatik at FHK-HT.

A student admitted to the Double Master's Degree Program by the Fachbereich Informatik at FHK-HT as the home institution will receive master's degrees from both institutions when the following requirements are fulfilled:

1. Satisfactory completion of two semesters of graduate studies, including six blocks of Multimedia Studies in the Fachbereich Informatik at FHK-HT (the blocks must appear on an approved Program of Study). For the specific requirements consult with the double degree program adviser.
2. Satisfactory completion of five classes ( 15 credit hours) of graduate studies in the Department of Computer Science at EMU (the classes must appear on an approved Program of Study based on Plan B [Research Study]). For the specific requirements consult with the double degree program adviser.
3. Satisfactory completion of a one-semester research study directed by a faculty member in the Department of Computer Science at EMU.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

```
COSC405 Switching Theory (3 hrs)
COSC421 Systems Programming (3 hrs)
COSC422 Introduction to Microprocessors (3 hrs)
COSC423 Computer Operating Systems (3 hrs)
COSC436 Web Programming (3 hrs)
COSC439 Computing Network Principles (3 hrs)
COSC444 Foundations of Automata and Languages (3 hrs)
COSC445 Compiler Construction (3 hrs)
COSC456 Microcomputer Graphics (3 hrs)
COSC461 Heuristic Programming (3 hrs)
COSC471 Database Principles (3 hrs)
COSC481 Software Engineering and Senior Project (3 hrs)
COSC403 Seminar and Project Design for Educators (3 hrs)
```


# Department of Economics 

Campus Address: 703-A Pray-Harrold<br>Internet: www.emich.edu/public/economics/homepage.htm<br>Telephone: 734.487.3395<br>E-mail: raouf.hanna@emich.edu<br>See page 193 for course descriptions.

The Department of Economics has about 50 graduate students who come from a variety of countries and regions of the world: China, Egypt, Indonesia, Japan, Malaysia, the Middle East, Taiwan, Thailand and the United States. Class sizes are relatively small (10 to 20 students). Given the diversity of our students and faculty, students are exposed to a great variety of economic conditions, problems and government policies. The department offers several graduate programs: master of arts in economics, master of arts in applied economics and master of arts in trade and development.

These programs are designed to accommodate students with varied backgrounds and needs, and offer sufficient flexibility to meet the career objectives of students with various interests. The programs prepare students for careers in business, finance, industry and government service. They also provide training for students who intend to pursue the study of economics at more advanced levels. Together, the three programs can accommodate students with undergraduate backgrounds in fields ranging from mathematics and engineering, economics and business, to political science, public administration and liberal arts.

## Admission Requirements

Admission to any of the department's programs is available in three ways:

## Degree Admission <br> Applicants must:

1. Obtain a baccalaureate from an accredited college or university;
2. Have an undergraduate grade point average of at least 2.5 ; and
3. Satisfy the undergraduate course requirements, including the equivalent of ECON201, ECON202, ECON301, ECON302 and ECON310.

## Conditional Admission

Conditional admission is granted to those students not meeting the standards stated in (3.) above, but who show promise. Students who are conditionally admitted are required to overcome specified deficiencies existing at the time of admission. When these deficiencies are overcome, the student's status is changed to degree admission. No more than 12 hours of graduate course work in economics taken by students on conditional status may be applied toward the M.A. degree.

## Non-Degree Admission

Non-degree student status is available for those not qualified for degree or conditional admission, or those who wish to take courses for self-improvement and are not interested in obtaining a degree.

## Program Length

The length of each program is 30 hours, which can be completed as follows: 18 credit hours in fall (nine) and winter (nine) semesters, six or nine hours over spring and summer, and a final semester for the remaining three or six hours, plus meet the research requirement. Students meet the research requirement by satisfactorily completing: (1) ECON604 (a research seminar), (2) a master's thesis, or (3) ECON699 (Supervised Research Paper). There are no foreign language requirements.

## Admission Policies and Procedures

A score from the Graduate Record Examinations (GRE) is not required. International students must take TOEFL and the Test of Written English (TWE). Students with scores below the minimum must take English as a Second Language (ESL) courses at EMU to raise their English proficiency up to a satisfactory level. See the Admissions Web site at www.emich.edu/ admissions for minimum scores.

## Financial Aid

Financial aid includes the graduate assistantship (GA) program and fellowship program. The Department of Economics awards about five full-time graduate assistantships per academic year. Recipients of full-time positions work about 20 hours per week, earn about $\$ 8,000$ per academic year and receive a tuition waiver of 18 hours per academic year. Awards are based on the student's academic performance (as shown by grade point average and letters of recommendation), and experience in using computer programs. Graduate fellowships are awarded by the Graduate School, with particular focus on women and minority students desiring study in disciplines where these populations are under-represented. Awards are based on the student's academic performance and consist of a $\$ 4,000$ stipend per academic year.

## MASTER OF ARTS in Economics (ECN)

The master of arts in economics provides a basic understanding of the theoretical foundations and tools of economic analysis so that students gain competence in economic theory and its uses. The program exposes students to a variety of areas of economic study through course work, independent study and research. The general program enables students to choose any mix of elective courses in economics (with up to six hours of cognates upon approval) that meet their career goals.

## Degree Requirements

In addition to satisfying general Graduate School requirements, the student must satisfactorily complete the following course requirements.

## Course Requirements

The M.A. in economics requires 30 hours of course work to be distributed among required courses and program courses as follows:

[^2]
## MASTER OF ARTS in International Economics and Development (ECNI)

This program provides a basic understanding of the theoretical foundations and tools of economic analysis, enabling students to gain competence in economic theory and its uses. The program exposes students to a variety of areas of economic study through course work, independent study and research. In addition, this program prepares students for technical careers (e.g. research and/or consulting for government and private business) in the fields of international economics and economic development.

## Degree Requirements

In addition to satisfying general Graduate School requirements, the student must satisfactorily complete the following course requirements.

## Course Requirements

The M.A. in international economics and development requires 30 hours of course work to be distributed among required courses and program courses as follows:

```
Required Courses............................................................... }15\mathrm{ hours
    *ECON415 Introduction to Econometrics (3 hrs)
    *ECON511 Mathematical Economics (3 hrs)
    *ECON601 Macroeconomic Analysis (3 hrs)
    *ECON602 Microeconomic Analysis (3 hrs)
        Select from option I, option II or option III:
            Option I:
                ECON604 Research Seminar in Economics (3 hrs)
            Option II:
                ECON699 Independent Study (3 hrs) in which the stu-
                dent writes a supervised research (M.A.) paper under the
                direction of a faculty member.
            Option III:
                ECON692 Thesis (3 hrs)
Restricted Elective Courses
            ECON581 The International Monetary System (3 hrs)
            ECON585 Economic Growth and Development (3 hrs)
            ECON586 Economic Planning (3 hrs)
            ECON587 Case Studies in Economic Development (3 hrs)
            ECON681 Special Topics (3 hrs)
            Other adviser-approved electives (0-3 hrs)
            Program Total
                                    30 hours
Note:
*These courses must be completed with a grade of B- or better.
```


## MASTER OF ARTS in Health Economics (ECNH)

The master of arts in health economics provides a basic understanding of the theoretical foundations and tools of economic analysis so that students gain competence in economic theory and its uses. The program exposes students to a variety of areas of economic study through course work, independent study and research. In addition, this program provides students with quantitative and computer skills that can be used to do analysis for health organizations and consulting firms that advise health organizations.

## Degree Requirements

In addition to satisfying general Graduate School requirements, the student must satisfactorily complete the following course requirements.

## Course Requirements

The M.A. in Health Economics requires 30 hours of course work to be distributed among required courses and program courses as follows:

```
Required Courses
15 hours
    *ECON415 Introduction to Econometrics (3 hrs)
    *ECON511 Mathematical Economics (3 hrs)
    *ECON601 Macroeconomic Analysis (3 hrs)
    *ECON602 Microeconomic Analysis (3 hrs)
        Select from option I, option II or option III:
            Option I:
                ECON604 Research Seminar in Economics (3 hrs)
            Option II:
                ECON699 Independent Study (3 hrs) in which the stu-
                dent writes a supervised research (M.A.) paper under the
                direction of a faculty member.
            Option III:
                ECON692 Thesis (3 hrs)
```

Restricted Elective Courses.
15 hours
ECON436G Health Economics (must be taken for graduate......................................... ( 3 hrs )
ECON536 Advanced Health Economics (3 hrs)
Three hours from the following:
HLAD510 Medical Care Organization (3 hrs)
HLAD511 Health Law (3 hrs)
HLAD512 Reimbursement for Health Care Services (3 hrs)
Six hours from the following:
ECON455 Cost-Benefit Analysis (must be taken for graduate
credit) (3 hrs)
ECON515 Econometrics: Theory and Applications (3 hrs)
ECON517 Economic Analysis of Law (3 hrs)
ECON520 Analytic Labor Economics (3 hrs)
ECON550 Public Finance: Analysis and Policy (3 hrs)
ECON560 Economics of Industrial Organization (3 hrs)
ECON606 Applied Economics (3 hrs)
ECON697/698/699 Independent Study (1/2/3 hrs)
Program Total

30 hours
Note:
*These courses must be completed with a grade of B- or better.

## MASTER OF ARTS in Applied Economics (ECNA)

This program provides an organized and carefully developed study of applied economics. While the program satisfies the general education requirements of the economics profession, it seeks to meet the need for empirically oriented applied economists.

In addition to the sequence of core courses, the program stresses research opportunities and the use of quantitative approaches. Extensive application of computer techniques is integral to the program.

The program introduces students to model building for the analysis of complex public policy issues, such as taxation, transportation, energy, environment, technology, education, demography and health care. It enables students to utilize modern techniques of model estimation, assessment, simulation and forecasting.

## Admission Requirements

## Degree Admission

Degree admission is available to applicants who:

1. Hold a bachelor's degree, with a major or minor in economics, from an accredited college or university, or a bachelor's or master's degree in business administration or another appropriate field;
2. Have an undergraduate GPA of at least 2.5 on a 4.0 scale; and
3. Satisfy the undergraduate course requirements including the equivalent of ECON201 and ECON202, ECON301 and ECON302 and ECON310.

## Conditional Admission

Conditional admission may be granted to otherwise promising applicants who do not meet the above stated standards. Conditionally admitted students must overcome specified deficiencies in order to have their status changed to degree admission. No more than 12 hours of graduate course work in economics taken by students on conditional status may be applied toward the M.A. degree.

## Non-Degree Admission

Non-degree student status is available to those not qualifying for degree or conditional admission, or those who wish to take courses for self-improvement only.

## Degree Requirements

In addition to satisfying general Graduate School requirements, the student must satisfactorily complete the following course requirements:

## Course Requirements

The M.A. in applied economics requires 30 hours of course work to be distributed among required courses, restricted elective courses, and elective courses as follows:

```
Required Courses................................................................ }18\mathrm{ hours
    *ECON415 Introduction to Econometrics (3 hrs)
    *ECON511 Mathematical Economics (3 hrs)
    *ECON601 Macroeconomic Analysis (3 hrs)
    *ECON602 Microeconomic Analysis (3 hrs)
        ECON606 Applied Economics (3 hrs)
        Select from option I, option II or option III:
```

            Option I:
                ECON604 Research Seminar in Economics (3 hrs)
            Option II:
                ECON699 Independent Study ( 3 hrs ) in which the stu-
                dent writes a supervised research (M.A.) paper under the
                direction of a faculty member.
            Option III:
                ECON692 Thesis (3 hrs)
    Restricted Elective Courses ......................................................... 6 hours
Two courses from the following:
ECON510 Applied Economic Statistics (3 hrs)
ECON515 Econometrics: Theory and Applications (3 hrs)
ECON545 Economic Forecasting and Policy (3 hrs)

Elective Courses......................................................................... 6 hours Six hours selected in consultation with the graduate adviser.

Program Total ......................................................................... 30 hours
Note:
*ECON415, ECON511, ECON601, and ECON602 must be completed with
a grade of B- or better.

## MASTER OF ARTS in Trade and Development (TRDV)

Rapidly growing international trade, the complexities of world financial markets, and the collision of economic development with environmental problems place special demands on economists engaged in business and public policy making. There are master's degree programs that provide training in business or foreign language, or some combination thereof. The economics components of these programs are often minimal and insufficient,
however. Many master's programs in economics are designed chiefly to serve students with strong analytic skills. By contrast, the master of arts in trade and development not only offers comprehensive training in international trade and economic development, but also stresses applications and policy issues relevant to nontechnical careers in business and government service.

## Admission Requirements

## Degree Admission

Degree admission is available to applicants who:

1. Hold a bachelor's degree, with a major or minor in economics, from an accredited college or university, or a bachelor's or master's degree in business, foreign language, political science or another appropriate field;
2. Have an undergraduate GPA of at least 2.5 on a 4.0 scale; and
3. Satisfy undergraduate course requirements including at least one course in economics and the equivalent of MATH118 and ECON310.

Conditional Admission
Conditional admission may be granted to otherwise promising applicants who do not meet the above stated standards. Conditionally admitted students must overcome specified deficiencies in order to have their status changed to degree admission. No more than 12 hours of graduate course work in economics taken by students on conditional status may be applied toward the M.A. degree.

## Non-degree Admission

Non-degree student status is available to those not qualifying for degree or conditional admission, or those who wish to take courses for self-improvement only.

## Degree Requirements

In addition to satisfying general Graduate School requirements, the student must satisfactorily complete the following course requirements:

## Course Requirements

The M.A. in trade and development requires 30 hours of course work to be distributed among required courses and restricted elective courses as follows:
Required Courses.
24 hours
ECON415 Introduction to Econometrics (3 hrs)
ECON501 Macroeconomic Theory and Policy (3 hrs)
ECON502 Microeconomic Theory and Policy (3 hrs)
ECON508 International Trade (3 hrs)
ECON509 International Monetary Economics (3 hrs)
ECON561 Economics of Multinational Enterprise (3 hrs)
ECON585 Economic Growth and Development (3 hrs)
Select from option I, option II or option III:
Option I: ECON604 Research Seminar in Economics (3 hrs)
Option II: ECON699 Independent Study (3 hrs) in which the
student writes a supervised research (M.A.) paper under
the direction of a faculty member.
Option III: ECON692 Thesis (3 hrs)
Restricted Elective Courses.
.6 hours
Six hours from the following:
ECON587 Case Studies in Economic Development (3 hrs)
ECON681 Special Topics (3 hrs)
FIN540 International Finance (3 hrs)
MKTG520 International Business (3 hrs)

## GRADUATE CERTIFICATE in Public Personnel Management (PPM)

See page 35 for Interdisciplinary studies listings.

# GRADUATE CERTIFICATE IN Public Budget Management (PBM) 

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE in Public Policy Analysis (PPA)

See page 35 for Interdisciplinary studies listings.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400-level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

ECON405 Economic Analysis for Business (3 hrs)
ECON406 History of Economic Thought (3 hrs)
ECON407 Economic Analysis and Law (3 hrs)
ECON415 Introduction to Econometrics (3 hrs)
ECON420 Comparative Labor Unionism (3 hrs)
ECON 436 Health Economics (3 hrs)
ECON440 Money, Credit, and Monetary Policy (3 hrs)
ECON445 Economic Fluctuations and Forecasting (3 hrs)
ECON455 Cost-Benefit Analysis (3 hrs)
ECON460 Industrial Organization (3 hrs)
ECON479 Special Topics (Financial Economics) (3 hrs)
ECON480 International Economics (3 hrs)

# Department of English Language and Literature 

Campus Address: 612 Pray-Harrold<br>Internet: www.emich.edu/public/english/index.html Telephone: 734.487.4220<br>E-mail: russell.larson@emich.edu

See pages 200, 218, and 219 for course descriptions.

Degree candidates in other departments may elect English department courses as cognates if they meet prerequisites and if class size permits.
Members of the department's graduate committee are available for consultation during regular office hours. Students are assigned advisers upon admission and may request specific faculty advisers if available.

## Departmental Admission Requirements

Applicants must:

1. Have at least 24 hours of undergraduate English, excluding freshman composition, and a GPA of at least 3.0. Applicants not meeting these standards may apply for conditional admission;
2. Nonnative speakers of English must have a minimum score on the Test of English as a Foreign Language (TOEFL) or a 90 on the Michigan English Language Assessment Battery (MELAB), and pass the Test of Written English (TWE) with a minimum score. Students should see the Admissions Web site at www.emich.edu/admissions for minimum scores;
3. GRE general test scores are recommended, but not required; and
4. Meet the requirements of the graduate school.

## Departmental Degree Requirements

1. A minimum of 30 hours of graduate work in a program of study approved by the coordinator of graduate studies, with a GPA of at least 3.0.
2. A master's thesis is required in several programs, optional in others. See individual program requirements. The thesis or project topic and design are developed by the candidate with the advice of a departmental faculty member. The thesis or project must be submitted for the approval of the directing committee.

## MASTER OF ARTS in Literature (LITR)

## Objectives

The M.A. in literature provides master's-level competence in English and American literature.

The degree is appropriate for teachers on the elementary, high school or community college level, and for students planning to pursue doctoral study in English or American literature. The degree provides a valuable educational background for professions where critical thinking and clear, accurate expression, combined with a knowledge of literature, are desired.

## Program Requirements

Students must complete a major of 18 hours in the department's courses in English and American literature (excluding children's literature, for which there is a separate degree).

## Course Requirements

The M.A. in literature requires 30 hours of course work to be distributed among required courses, major program courses, elective courses, and cognate courses as follows:

[^3]LITR565 Studies in 19th Century Fiction (3 hrs)
LITR570 Studies in Romantic Literature (3 hrs)
LITR575 Studies in Victorian Literature (3 hrs)
LITR568 Studies in 19th Century American Poetry (3 hrs)
LITR569 The American Renaissance: 1830-1860 (3 hrs)
LITR523 Realism and Naturalism in American Literature (3 hrs)
c) Twentieth Century and Contemporary Literature 6 hours Two courses from the following:

LITR526 Studies in African-American Literature to 1945 (3 hrs)
LITR527 Studies in African-American Literature since 1945 (3 hrs)
LITR566 Studies in 20th Century British Fiction (3 hrs)
LITR567 Studies in 20th Century Irish Literature (3 hrs)
LITR576 Studies in 20th Century American Fiction (3 hrs)
LITR577 Studies in 20th Century American Poetry (3 hrs)
LITR580 Studies in Contemporary Literary Trends (3 hrs)
Elective or Cognate Courses ....................................................... 6 hours
Program Total ............................................................................ 30 hours

## M.A. Examination

During the semester before graduation, candidates must pass an examination on major works covering a broad spectrum of periods and genres of British and American literature and of critical theory.

## MASTER OF ARTS in Written Communication (WRCM)

This program prepares students for careers in professional writing, editing and publishing, or the teaching of writing at the elementary, secondary or community college levels. It also provides a thorough preparation for Ph.D. studies in rhetoric and composition.

Applicants may combine academic and professional experience in support of their application.

## Course Requirements

The M.A. in written communication requires 30-32 hours from one of the options below:

## Option I: Teaching of Writing

Required Courses............................................................... 21-23 hours
ENGL503 Rhetorical Theory and the Teaching of Writing (3 hrs)
ENGL515 Literacy and Written Literacy Instruction (3 hrs)
ENGL516 Computers and Writing: Theory and Practice (3 hrs)
ENGL621 Research in Theory and Practice of Writing (3 hrs)
One course from the following:
ENGL514 Issues in Teaching Writing (3 hrs)
ENGL675 Eastern Michigan Writing Project Summer Institute (3 hrs)
One course from the following:
ENGL517 Topics in the Teaching of Writing (3 hrs)
ENGL518 Topics in English Education (3 hrs)
One course from the following:
ENGL692 Thesis (3 hrs)
ENGL693 Master's Writing Project (3 hrs)
ENGL694 Teacher Research/Professional Writing Internship (3 hrs)

Elective Courses and Cognates $\qquad$ 9 hours
Students select from among courses in writing, linguistics, literature, reading, teaching English as a second language, communication theory, computer science, measurement and evaluation, psychology or statistics.

Program Total 30-32 hours

## Option II: Professional Writing

```
Required Courses.
```

$\qquad$

```18 hours
    ENGL505 Rhetoric of Science and Technology (3 hrs)
    ENGL524 Advanced Technical Writing and Research (3 hrs)
    ENGL525 Advanced Public Relations Writing (3 hrs)
    ENGL621 Research in Theory and Practice of Writing (3 hrs)
    One course from the following:
                            ENGL526 Topics in Technical Communication (3 hrs)
                            ENGL527 Topics in English Education (3 hrs)
        One course from the following:
            ENGL692 Thesis (3 hrs)
            ENGL693 Master's Writing Project (3 hrs)
            ENGL694 Teacher Research/Professional Writing Internship (3 hrs)
```

Elective Courses and Cognates ................................................. 12 hours
Students select from among courses in writing, linguistics, literature,
graphic design, communication theory, computer science, science or
industrial technology.

## Program Total

30 hours

## Option III: Discourse Studies

Required Courses..................................................................... 18 hours
ENGL503 Rhetorical Theory and the Teaching of Writing (3 hrs)
ENGL505 Rhetoric of Science and Technology (3 hrs)
ENGL515 Literacy and Written Literacy Instruction (3 hrs) LING535 Discourse Analysis (3 hrs)
ENGL621 Research in Theory and Practice of Writing (3 hrs)
One course from the following:
ENGL692 Thesis (3 hrs)
ENGL693 Master's Writing Project (3 hrs)
Elective Courses and Cognates
12 hours Students select from among courses in writing, linguistics, literature, communication theory, computer science or teaching English as a second language.

Program Total
30 hours

## MASTER OF ARTS in Creative Writing (CW)

Objectives
This program provides advanced, individualized work in creative writing and contemporary studies. It prepares writers to continue their creative work and to teach creative writing, English, humanities or contemporary studies.

Applicants must submit a portfolio of their creative writing and meet the general requirements for admission to the graduate program in English language and literature. The portfolio may replace part of the 24 hours of undergraduate course work in English.

## Course Requirements

The M.A. in creative writing requires 30 hours of course work to be distributed among required courses, restricted elective courses and cognate courses as follows:

[^4]LITR576 Studies in 20th Century American Fiction (3 hrs) LITR580 Studies in Contemporary Literary Trends (3 hrs) Other courses with permission of adviser

Cognate Courses. .9 hours
Nine hours selected in consultation with the graduate coordinator. Courses from any area of contemporary studies - art, foreign language literature, music, history, philosophy, etc.

Program Total 30 hours

## MASTER OF ARTS in English Linguistics (LING)

## Objectives

Linguistics is the scientific study of how languages are learned, processed, used and structured; it investigates why and how languages change, and what status they have in social life. Linguistics is important to social and cognitive psychology, native and foreign language teaching at all levels, artificial intelligence and computer science, communications, sociology and anthropology, and historical accounts of human civilization. Linguists work in colleges and universities, in language instruction and educational planning, in the communications industries (including publishing), in translation services, and in cross-cultural business and government agencies.

## Program Requirements

Students must complete those parts of the LING401/420/425 sequence that were not a part of their undergraduate work. Graduate credit may be given for these courses.

In addition, each candidate must complete a thesis (LING692) or a comprehensive examination, including questions from general linguistics and specialized area(s) chosen by the candidate.

## Course Requirements

The M.A. in English linguistics requires 30 hours of course work to be distributed among restricted elective courses and elective courses as follows:
Restricted Elective Courses ....................................................... 18 hours
Six courses from the following:
LING501 Current Trends in Linguistics ( 3 hrs )
LING502 History of Linguistics (3 hrs)
LING510 Historical and Comparative Linguistics (3 hrs)
LING525 Syntactic Analysis (3 hrs)
LING531 Semantics: The Study of Meaning (3 hrs)
LING532 Sociolinguistics (3 hrs)
LING533 General Psycholinguistics (3 hrs)
LING534 Phonological Analysis (3 hrs)
LING535 Discourse Analysis (3 hrs)
LING536 Typology and Universals of Language (3 hrs)
LING592 Special Topics (3 hrs)
with adviser's approval

Elective Courses
12 hours
Thesis plan students will take three of these hours in LING692 Thesis. Suggested areas include anthropology, composition and rhetoric, linguistics courses not taken above, literature (particularly the early periods), mathematics and computer science, psychology, reading, sociology, speech and hearing science and TESOL.

## Program Total

.30 hours

## TESOL Program

Students interested in practical applications of English linguistics are also advised to consult the master of arts program in teaching English to speakers of other languages (TESOL) offered by the Department of Foreign Languages and Bilingual Studies.

# MASTER OF ARTS in Children's Literature (CLT) 

## Objectives

The M.A. in children's literature is designed to provide master's level competency in all major areas of children's literature, including folklore and mythology.

The degree is an appropriate choice for candidates who anticipate teaching on the elementary, middle, or junior high school levels, as well as special education teachers, reading specialists, librarians, authors and editors of children's books. It also provides preparation for college teachers of children's literature and for those who anticipate undertaking doctoral studies.

## Program Requirements

A candidate completes a major of 18 hours in the department's courses in children's literature.

```
Required Courses. 18 hours
    LITR511 Literary Criticism (3 hrs)
    Five courses from the following:
        LITR516 Major Genres in Children's Literature (3 hrs)
        LITR517 Teaching of Children's Literature (3 hrs)
        LITR518 History of Children's Literature (3 hrs)
        LITR519 History of Children's Literature: 20th Century (3 hrs)
        LITR581 Critical Approaches to Mythology (3 hrs)
        LITR582 Wisdom of the People: Ballads, Legends and Tales (3 hrs)
        LITR583 Literature for Early Childhood (3 hrs)
        LITR584 Literature for Adolescents (3 hrs)
        LITR592 Special Topics (3 hrs)
```

Elective Courses .6-12 hours Select additional children's literature courses from the above list or appropriate courses in literature, writing or linguistics.
Cognate Courses.
0-6 hours
Zero to six hours selected in consultation with the graduate coordinator.

Program Total 30 hours

## M.A. Examination

During the semester before graduation, a candidate is required to pass a written examination in children's literature covering a broad spectrum of periods, genres and critical theory. A new list of works is posted each September.

## Graduate Certificate in Teaching of Writing

Required Courses<br>15-17 hours<br>ENGL515 Literacy and Written Literacy Instruction (3 hrs)<br>ENGL516 Computers and Writing: Theory and Practice (3 hrs) ENGL503 Rhetorical Theory and the Teaching of Writing (3 hrs) One course from the following:<br>ENGL514 Issues in the Teaching of Writing (3 hrs)<br>ENGL596 Teaching Composition at the College Level (3 hrs)<br>ENGL675 Eastern Michigan Writing Project Invitational Summer Institute ( 5 hrs )<br>One course from the following:<br>ENGL517 Topics in the Teaching of Writing (3 hrs)<br>ENGL518 Topics in English Education (3 hrs)

Certificate Total. 15-17 hours

## Graduate Certificate in Technical Communication (TECM)

## Objectives

The certificate program provides specialist training, at the graduate level, to individuals who wish to increase their knowledge, or obtain new knowledge, in the field of technical communication. The program addresses the needs of individuals who have been trained in other fields who wish to become technical communicators; of individuals who have been trained in English or technical communication who wish to take additional, advanced course work in the field; and of practitioners in technical communication who wish to increase their knowledge base. The program provides students with the skills they will need to work as technical communicators and/or to pursue further graduate study in technical communication.

## Admission Requirements

In addition to the Graduate School admission requirements for certificate programs, the department stipulates the following:

1. At least 18 hours of undergraduate English, excluding freshman composition, and a GPA of at least 3.0. Applicants not meeting these standards may apply for conditional admission. Further, applicants may also combine academic and professional experience in support of their application.
2. Non-native speakers of English must have a minimum score on the Test of English as a Foreign Language (TOEFL) or on the Michigan English Language Assessment Battery (MELAB), and pass the Test of Written English (TWE) with a minimum score of five. Students with TWE scores below five will be denied admission; students with TOEFL scores lower than minimum can be considered for conditional admission, but must attain minimum scores by the end of the first semester of enrollment. See the Admissions Web site for minimum scores.

## Certificate/Degree Requirements

1. A minimum of 15 credit hours of graduate course work in technical communication with a GPA of at least 3.0.
2. Students are encouraged to compile a portfolio of work completed in the program accompanied by a reflective essay. The portfolio and reflective essay are optional.

Note:
Advanced 400-level undergraduate courses are also available to graduate students. A maximum of three hours of approved 400 -level course work may count toward the graduate certificate in technical communication.

Students must submit a request form from the Graduate School to enroll in an advanced 400-level undergraduate course for graduate credit.

Required Courses..................................................................... 15 hours
ENGL524 Advanced Technical Writing and Research (3 hrs)
Three courses from the following:
ENGL525 Advanced Public Relations Writing (3 hrs)
INDT502 Microcomputer Applications in Administration and Research (3 hrs)
ENGL526 Topics in Technical Communication (3 hrs)
ENGL527 Topics in Professional Communication (3 hrs)
One course from the following:
ENGL427 Technical Editing (3 hrs)
ENGL428 Writing Computer Documentation (3 hrs)
Certificate Total. 15 hours

## Note:

Students must take some combination of the above courses to obtain a total of 15
hours. Students may only take one advanced 400 -level class for graduate credit; therefore, they cannot take both ENGL427 and ENGL428 for credit. They must take one or the other of these classes.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

ENGL408 Writing for Writing Teachers (3 hrs)
ENGL417 Writing about Controversies (3 hrs)
ENGL422 Writer's Workshop: Fiction or Poetry (3 hrs)
ENGL424 Technical Writing (3 hrs)
ENGL427 Technical Editing (3 hrs)
ENGL428 Writing Computer Documentation
ENGL444 Writing for the World Wide Web (3 hrs)
ENGL450 Children's Literature: Criticism and Response (3 hrs)
ENGL451 Writing about Controversy in Literature for the Young (3 hrs)
ENGL487 Cooperative Education in English (3 hrs)
ENGL488/489/490 Internship in Technical Writing (1/2/3 hrs)
ENGL409 Teaching English in the Secondary Schools (3 hrs)
JRNL408 Case Studies in Public Relations (3 hrs)
JRNL423 Magazine Article Writing (3 hrs)
JRNL453 Advanced Reporting (3 hrs)
JRNL454 Contemporary Problems in Journalism (3 hrs)
JRNL455 Journalism and the Law (3 hrs)
LING401 Introduction to Linguistic Science (3 hrs)
LING402 Modern English Grammar (3 hrs)
LING415 Women and Language (3 hrs)
LING420 Introduction to Phonology (3 hrs)
LING421 The History of the English Language (3 hrs)
LING425 Introduction to Syntax (3 hrs)
LING426 Topics in Linguistics (3 hrs)
LING434 The Linguistic Analysis of Literature (3 hrs)
LITR411 Studies in Epic and Romance (3 hrs)
LITR413 The Poetry of Chaucer (3 hrs)
LITR440 Genre Studies (3 hrs)
LITR443 Women in Literature (3 hrs)
LITR450 Major Authors (3 hrs)

## Department of Foreign Languages and Bilingual Studies

Campus Address: 219 Alexander<br>Internet: www.emich.edu/public/foreignlanguages/fl_welcome.html Telephone: 734.487.0130<br>E-mail: elisabeth.morgan@emich.edu

See pages 174, 201, 203, 204, 206, 217, 246 and 250 for course descriptions.

## The department offers four master of arts degrees:

1. The master of arts in Spanish (bilingual-bicultural education)
2. The master of arts in language and international trade
3. The master of arts in teaching English to speakers of other languages (TESOL)
4. The master of arts in foreign languages with programs in French, German and Spanish

The department also offers graduate certificates in TESOL, in Hispanic language and cultures and in German for business practices. In addition, candidates for the master of arts in secondary education or the master of arts in individualized studies can earn concentrations in French, German or Spanish.

## MASTER OF ARTS in Spanish Bilingual-Bicultural Education (SPBL)

## Objectives

The program is intended to lead to the master's degree with high-level competencies in the following areas:

## Language

This area comprises proficiency in both Spanish and English, in the use of both languages as a vehicle of instruction in content areas.

## Culture

This area comprises specific knowledge of Latino and other cultures and the diversity within each; sensitivity to differences in socioeconomic, cultural and linguistic background; and the development of skills in guiding students to understand and accept cultural pluralism.

## Methodology

This area comprises the accommodation of various cultural, linguistic and socioeconomic backgrounds through individualized instruction and appropriate evaluation procedures; development of skills in classroom management, including team teaching and working with paraprofessionals; and enhancement of expertise in organizing, planning and teaching lessons that interface the bilingual-bicultural curriculum with standard local district curricula.

## Admission Requirements

Applicants must:

1. Meet Graduate School admission requirements;
2. Possess sufficient skills in both Spanish and English to participate in graduate courses and fieldwork in either language;
3. Have experience living and/or working in a culturally diverse setting; and
4. Demonstrate intent and commitment to pursue and successfully complete the program leading to a graduate degree.

## Note: Conditional admission will not be granted.

## Program Requirements

In addition to completing the course requirements below, students must:

1. Demonstrate oral and written language proficiency, by examination, in both Spanish and English;
2. Possess or be eligible for a valid teaching certificate; and
3. Complete three days of collateral field experience for each required and track course, except seminar, representing a total of 15 days of such experience.

## Course Requirements

The M.A. in Spanish bilingual-bicultural education requires 31 to 34 hours of course work to be distributed among required courses, track courses, restricted elective courses, cognate courses and a culminating experience as follows:

## Required Courses.

18 hours
BILN622 Teaching Hispanic Culture and Language ( 3 hrs )
FLAN695 Seminar in Bilingual-Bicultural Education (3 hrs)
SPNH682 U.S. Dialects of Spanish (3 hrs)
TSLN410 TESOL Methods (3 hrs)
FLAN421 History and Theory of Bilingual-Bicultural Education (3 hrs)
SPNH471 Culture and Literature of the Hispanic Groups in the U.S. (3 hrs)
Restricted Elective Courses
Six hours from the following:
TSLN501 Theoretical Foundations of Second-Language Pedagogy (3 hrs)
TSLN520 Foreign Language Testing and Evaluation (2 hrs)
TSLN679 Special Topics ( 1 hr )
CURR512 Enriching the Elementary Classroom Program (2 hrs)
CURR600 Trends and Issues in Early Childhood Education (2 hrs)
CURR616 Issues in Elementary School Curriculum (2 hrs)
CURR630 Issues in Secondary School Curriculum (2 hrs)
CURR632 Individualizing Instruction in the Secondary School (2 hrs)
CURR657 The Open Classroom (4 hrs)
EDPS631 Measurement and Evaluation (2 hrs)
RDNG518 Developmental Reading - Elementary (2 hrs)
RDNG519 Programs in Language Arts (2 hrs)
RDNG530 Developmental Reading - Secondary (2 hrs)
RDNG554 Reading Problems of Learners with Special Needs (2 hrs)
SOFD580 Sociology of Education (2 hrs)
SPNH519 Spanish Phonology (2 hrs)
SPNH620 Spanish Grammar and Syntax (2 hrs)
SPNH621 Graduate Spanish Conversation (2 hrs)
Cognate Courses. ..... 6 hoursSix hours selected in consultation with a graduate adviser.
Culminating Experience.

$\qquad$
.1-3 hours

## Program Total

$\qquad$ .31-33 hours

## Bilingual Endorsement Program for Certified Teachers (Not a DEGREE PROGRAM)

In addition to completing the course requirements below, students must:

1. Demonstrate oral and written language proficiency, by examination, in both Spanish and English as measured by examination;
2. Possess or be eligible for a valid teaching certificate; and
3. Complete three days of collateral field experience for each required course, except seminar, representing a total of 15 days of such experience.

## Certificate Requirements

This certificate requires 18 hours of course work to be distributed as follows:
BILN622 Teaching Hispanic Culture and Language ( 3 hrs )
TSLN410 TESOL Methods (3 hrs)
FLAN421 History and Theory of Bilingual Education (3 hrs)
FLAN695 Seminar in Bilingual-Bicultural Education (3 hrs)
SPNH471 Culture and Literature of the Hispanic Groups in the United States (3 hrs)
SPNH682 U.S. Dialects of Spanish (3 hrs)
Program Total
18 hours

## MASTER OF ARTS in Language and International Trade (LGIT)

## Objectives

Objectives of the program are to promote cultural awareness and sensitivity with reference to our own society as well as to societies of other world regions and to provide the skills and knowledge necessary for competent performance in an international business environment.

## Admission Requirements

Degree Admission
Applicants must:

1. Declare the foreign language to be used for the language area requirement on the application for admission to the Graduate School (e.g., Language and International Trade - French). Native speakers of a language may not elect that language without permission of the language section concerned. (Students applying to the ESL section of the master of arts in language and international trade should be sure their completed applications reach the Graduate School five months prior to the first semester of their program.);
2. Possess a minimum overall undergraduate grade point average of 2.75 ;
3. Submit a statement of their reasons for pursuing this degree;
4. Have two of their former university professors complete departmental recommendation forms and forward them directly to the department; and
5. Meet the background requirements stated below:

## a. Foreign Language

Non-native speakers of French, German or Spanish must possess at least a minor in that language with a minimum grade point average of 3.0, or the equivalent proficiency.

Non-native speakers of English must possess a minimum score of 80 on the Michigan English Language Assessment Battery (MELAB), or a minimum score on the Test of English as a Foreign Language (TOEFL) or a minimum score on the computerized versions, and a minimum score on the Test of Written English (TWE) for admission. Students should see the EMU Admissions Web site for required minimum scores.

## b. Economics

A two-course sequence in macroeconomic theory and policy. A two-course sequence in microeconomic theory and policy. (Students not meeting the above requirements may be granted conditional admission and be required to complete either ECON201 and ECON301, or ECON501; and either ECON202 and ECON302, or ECON502. Students must achieve an overall grade point average of 3.0 [B] or better in deficiency courses.)
c. Business

A course in the principles of accounting.
A course in basic computers in business.
Note:
Students not meeting the above degree requirements may be granted conditional admission and be required to complete either ACC240 and ACC241, or ACC501; and MATH1 18 plus COSC101 or IS215, or IS502. Students must achieve an overall grade point average of 3.0 (B) or better in deficiency courses.

## Conditional Admission

Conditional admission may be granted to students who do not meet the above admission requirements. These students will be required to take deficiency courses to meet these requirements; this work will be done in addition to regular program requirements. Students must achieve an overall grade point average of 3.0 (B) or better in deficiency courses.

## Program Requirements

Students must complete a minimum of 10 hours in a foreign language, six hours in economics, 12 hours in business, and a cooperative education assignment for three to six hours.

## Cooperative Education

To complement their academic training and enhance their professional preparation and chances for future employment, all students are expected to complete a minimum 15 -week cooperative education assignment in the public or private sector, provided an appropriate position can be found. U.S. citizens may undertake this assignment either in the United States or in a country where the language being studied is spoken, while ESL students may elect only the U.S. co-op. In all cases, students must satisfy the requirements of the co-op for which they are eligible.

## U.S. Co-op Placement

To be eligible for this placement, a student must have achieved at least a 3.0 GPA and have completed at least 12 hours of graduate business and economics courses, as well as half of the foreign language requirements. Students meeting these requirements should make an appointment with the language and international trade co-op adviser at least six months prior to the semester in which the student wishes to begin the co-op assignment.

## Overseas Co-op Placement

To be eligible for this placement, a student must have achieved at least a 3.25 GPA and have completed 18 hours of graduate business and economics courses, as well as the foreign language requirement for the master of arts in language and international trade. The student must also pass an oral interview conducted by department faculty in the language being studied at least seven months before the date on which the student wishes to begin the international co-op assignment. Consult the language and international trade co-op adviser for further information.

## Course Requirements

The M.A. in language and international trade requires 31-34 hours of course work to be distributed among required courses in foreign language, economics, business and cooperative education courses as follows:

```
Required Courses............................................................... }31\mathrm{ hours
    Foreign Language 10 hours
        If fulfilling foreign language requirement with English, com-
            plete ESLN642 and ESLN648 (five hours each).
        If fulfilling foreign language requirement with French German
                or Spanish, complete }10\mathrm{ hours, including courses FRNH/
                GERN/SPNH646/647 (three hours each), in the chosen
                language.
    Economics
                            6 hours
        ECON508 International Trade (3 hrs)
            (Prerequisites for this course are either ECON2O1 and
                ECON301; or ECON202 and ECON302; or ECON501
                and ECON502.)
        ECON509 International Monetary Economics (3 hrs)
        Other hours may be selected from among 500-level economics courses
        with the aid and approval of the language and international trade
        graduate adviser.
    Business
                                12 hours
        MKTG510 Marketing Management (3 hrs)
        DS501 Introductory Probability and Statistics for Business (3 hrs)
        (Prerequisites for this course are MATH118/119.) Other hours are
        to be selected from 500-level business courses with the aid and ap-
        proval of the language and international trade adviser. At least one
        of these must be a business course with an international focus.
    Cooperative Education
        3-6 hours
        FLAN688 Internship in Language and International Trade (3 hrs)
        Program Total
        31-34 hours
```


# MASTER OF ARTS in Teaching English to Speakers of Other Languages (TSL) 

## Objectives

Objectives of the program are to graduate teachers who possess a knowledge of English perceived as a second language, a knowledge of foreign language teaching and learning strategies, practical experience in applying theoretical knowledge, an awareness of the realities of the multicultural classroom, and a commitment to continued professional growth.

## Admission Requirements

Degree Admission
Applicants must:

1. Satisfy Graduate School admission requirements;
2. Have at least one year's college study of a foreign language, or the equivalent as determined by the Foreign Languages and Bilingual Studies Department;
3. Submit at least two letters of recommendation attesting to the applicant's promise of success in working with speakers of other languages and in multicultural settings;
4. Submit a statement of the applicant's reasons for pursuing this degree; and
5. For regular admission, non-native speakers of English must submit either an official TOEFL minimum score or the computerized version, with a writing subscore minimum, or a MELAB score of at least 80 , with a score of 93 on the composition subtest. Students should see the EMU Admissions Web site for required minimum scores.

## Conditional Admission

Conditional admission may be granted to students who do not meet the above admission requirements. These students will be required to take deficiency courses to meet these requirements, in addition to regular program requirements.

The deadline for applications is six months prior to the semester in which the applicant wishes to begin study. Because of the sequencing of core courses, starting the program in fall semester is recommended.

## Course Requirements

The M.A. in teaching English to speakers of other languages requires 32 hours of course work to be distributed among required courses, restricted elective courses, and cognate courses as follows:

```
Required Courses
                                    20 hours
    TSLN500 Observation and Analysis of ESL Programs ( 1 hr )
    TSLN501 Theoretical Foundations of Second-Language
            Pedagogy ( 3 hrs )
    TSLN502 A Pedagogical Grammar and Phonology of ESL (3 hrs)
    TSLN520 Foreign Language Testing and Evaluation (2 hrs)
    TSLN530 TESOL Methods: Reading, Writing and Grammar (2 hrs)
    TSLN531 TESOL Materials: Reading, Writing and Grammar (1 hr)
    TSLN532 TESOL Methods: Listening, Speaking and
            Pronunciation (2 hrs)
        TSLN533 TESOL Materials: Listening, Speaking and
            Pronunciation ( 1 hr )
    TSLN688 TESOL Practicum (3 hrs)
    TSLN694 Seminar (2 hrs)
```

Restricted Elective Courses.
6 hours
Six hours selected in consultation with the graduate coordinator.

Cognate Courses...................................................................... 6 hours Six hours of supportive or complementary courses from other departments should be selected with the approval of the graduate adviser. Select from the following recommended courses:

LING401 Introduction to Linguistic Science (3 hrs)
LING402 Modern English Grammar (3 hrs)
LING420 Introduction to Phonology (3 hrs)
LING425 Introduction to Syntax (3 hrs)
LING525 Syntactic Analysis (3 hrs)
LING531 Semantics: The Study of Meaning (3 hrs)
LING532 Sociolinguistics (3 hrs)
LING533 General Psycholinguistics (3 hrs)
LING534 Phonological Analysis (3 hrs)
LING535 Discourse Analysis (3 hrs)
Program Total
32 hours
Before enrolling in approved 400 -level courses for graduate credit, students must obtain (a) a recommendation of their adviser, and (b) a request form from the Graduate School. Not more than nine hours of approved 400level courses can be used on a graduate program.

## GRADUATE CERTIFICATE IN Teaching English as a Second Language (TSL)

This program is offered at Eastern Michigan University's center in Livonia.

## Objectives

This program prepares teachers who are already certified to teach in public schools to teach English as a second language. The primary goal is to enable teachers to address more effectively the academic and social challenges of an increasingly diverse student population, including the growing number of non-native English speakers, and to appreciate those students as resources for instruction and classroom management.

## Admission Requirements

Applicants must:

1. Submit at least two letters of recommendation that attest to the applicant's promise of success in working with speakers of other languages and in multicultural settings;
2. Submit a statement of reasons for pursuing this certificate;
3. Submit a Michigan (or other state) teaching certificate;
4. Submit proof of classroom teaching experience; and
5. Meet the requirements of the graduate school.

Note: There is no opportunity for conditional admission to this program for non-native speakers of English.

## Certificate Requirements

This certificate requires 15 hours of course work to be distributed as follows.
Required Courses..................................................................... 15 hours
TSLN410G TESOL Methods (3 hrs)
TSLN521 Content-Based Materials and Testing in the ESL Classroom (2 hrs)
TSLN503 Observation and Analysis of Multicultural Classrooms (2 hrs)
FLAN540 Cultural Issues in Language Teaching (2 hrs)
TSLN502 A Pedagogical Grammar and Phonology of ESL (3 hrs)
One course from the following:
TSLN525 Second Language Acquisition for Classroom Teachers (3 hrs)
TSLN501 Theoretical Foundations of Second-Language Pedagogy (3 hrs)
Certificate Total. .15 hours

Exit requirement for TESOL Graduate Certificate and ESL Endorsement: Students must have at least one year's college study of a foreign language, or the equivalent as determined by the Foreign Languages and Bilingual Studies Department.

## MASTER OF ARTS in Foreign Language - French (FRNH)

The goal of the master of arts in foreign language program is to bring candidates to a superior level of proficiency in the chosen foreign language as defined by the Interagency Language Roundtable/American Council on the Teaching of Foreign Languages (ILR/ACTFL) scale, as well as to provide a broad knowledge of the geography and cultures of the regions where the target language is spoken, and to improve overall teaching effectiveness.

## Objectives

General objectives of the program include:

1. Development of superior-level skills in listening, speaking, reading and writing in the chosen foreign language;
2. Incorporation of current pedagogies into the candidates' personal teaching styles; and
3. Analysis of current cultural patterns, literary material and/or technical information.

## Admission Requirements

1. Candidates must hold undergraduate majors or minors in the language of their specialization, with an overall undergraduate grade point average of 2.75 , and a grade point average of 3.0 in courses in the target language.
2. Candidates must complete an oral proficiency interview in the language of their specialization with a rating of "Advanced."
3. Conditional admission may be granted to candidates with deficiencies in target language proficiency. Such candidates must successfully complete deficiency courses including, but not limited to, FRNH443 Advanced French Grammar and Composition and FRNH444 Advanced French Conversation. Graduate credit will not be granted for these courses.
4. Applications will be reviewed by the faculty of the language area of specialization.

## Program Requirements

Students in all programs must complete a cultural immersion experience of at least six weeks in a country where the target language is predominant. Students who believe they have already fulfilled this requirement may petition to have the requirement waived or reduced; if the petition is approved, the candidate may substitute up to six hours of restricted electives. Students may satisfy this requirement through the intensive immersion experience offered in their language program. Similar programs of study with corroborating documentation may be accepted upon approval of the faculty of the area of concentration. Students should select a study abroad program in consultation with a faculty adviser prior to enrollment in any such program.

Students must, in consultation with a faculty adviser, complete a culminating experience such as a master's examination, a piece of data-based research, a thesis or an external oral proficiency exam such as the Certificate des Professions techniques et scientifiques de la Chambre de Commerce et d'Industrie de Paris, or Certificat or Diplome de francais scientifique et technique de la Chambre de Commerce et d'Industrie de Paris.

## Course Requirements

The M.A. in foreign language-French requires 31 to 33 hours of course work to be distributed among required courses, restricted elective courses, cognate courses and culminating experience courses as follows:

```
Required Courses.
18 hours FRNH523 Contemporary French Scene (3 hrs) FRNH610 Intensive French Abroad (6 hrs) FRNH620 French Grammar and Syntax (3 hrs) FRNH621 Advanced Conversation in French (3 hrs)
*Three additional hours in 500- or 600-level French or any of the following 400-level French courses:
FRNH431 Studies in French Theatre (3 hrs)
FRNH432 Studies in French Poetry (3 hrs)
FRNH433 Studies in French Prose ( 3 hrs )
FRNH451/452 Readings in French ( \(1 / 2 \mathrm{hrs}\) )
FRNH466 French Speaking Cultures of the World (3 hrs)
FRNH477/478/479 Special Topics (1/2/3 hrs)
```

Restricted Elective Courses ......................................................... 6 hours Six hours from the following:

TSLN501 Theoretical Foundations of Second-Language Pedagogy (3 hrs)
TSLN520 Foreign Language Testing and Evaluation (2 hrs)
FLAN611 Theory and Methods of Modern Language Teaching (3 hrs)
FLAN612 The Proficiency-Based Curriculum (3 hrs)
FLAN613 Using Technology in the Foreign Language Classroom (3 hrs)
Cognate Courses. Six hours in a related content area (not in the Department of Foreign Languages and Bilingual Studies), selected in consultation with a faculty adviser.
Culminating Experience Course ..... 1-3 hours
Program Total ..... 31-33 hours
Note:
*A maximum of nine hours of undergraduate course work may be permitted inthe earning of any graduate degree.

## MASTER OF ARTS in Foreign Language - German (GERN)

The goal of the master of arts in foreign language program is to bring candidates to a superior level of proficiency in the chosen foreign language as defined by the ILR/ACTFL scale, as well as to provide a broad knowledge of the geography and cultures of the regions where the target language is spoken, and to improve overall teaching effectiveness.

## Objectives

General objectives of the program include:

1. Development of superior-level skills in listening, speaking, reading and writing in the chosen foreign language;
2. Incorporation of current pedagogies into the candidates' personal teaching styles; and
3. Analysis of current cultural patterns, literary material and/or technical information.

## Admission Requirements

1. Candidates must hold undergraduate majors or minors in the language of their specialization, with an overall undergraduate grade point average of 2.75 , and a grade point average of 3.0 in courses in the target language.
2. Candidates must complete an oral proficiency interview in the language of their specialization with a rating of "advanced."
3. Conditional admission may be granted to candidates with deficiencies in target language proficiency. Such candidates must successfully complete deficiency courses including, but not limited to, GERN443 German Syntax and Advanced Composition and GERN444 Advanced German Conversation. Graduate credit will not be granted for these courses.
4. Applications will be reviewed by the faculty of the language area of specialization.

## Program Requirements

Students in all programs must complete a cultural immersion experience of at least six weeks in a country where the target language is predominant. Students who believe they have already fulfilled this requirement may petition to have the requirement waived or reduced; if the petition is approved, the candidate may substitute up to six hours of restricted electives. Students may satisfy this requirement through the intensive immersion experience offered in their language program. Similar programs of study with corroborating documentation may be accepted upon approval of the faculty of the area of concentration. Students should select a study abroad program in consultation with a faculty adviser prior to enrollment in any such program.

Students must, in consultation with a faculty adviser, complete a culminating experience such as a master's examination, a piece of databased research, a thesis or an external oral proficiency exam such as the Mittelstufenpruefung and Pruefung Wirtschaftsdeutsch International.

## Course Requirements

The M.A. in foreign language-German requires 31 to 33 hours of course work to be distributed among required courses, restricted elective courses, cognate courses and culminating experience courses as follows:

Required Courses.
GERN610 Intensive German in Europe (6 hrs)
GERN620 Advanced German Syntax and Composition (3 hrs) GERN621 Advanced Conversation in German (3 hrs)
*Six additional hours in 500- or 600-level German or any of the following 400-level German courses:

GERN425 German Literature from the Middle Ages to the Baroque (3 hrs)
GERN426 German Literature from 1750-1850 (3 hrs)
GERN427 German Literature from 1850-1945 (3 hrs)
GERN428 German Literature from 1945 to the Present (3 hrs)
GERN451/452 Readings in German ( $1 / 2 \mathrm{hrs}$ )
GERN466 German for International Affairs (3 hrs)
GERN477/478/479 Special Topics ( $1 / 2 / 3 \mathrm{hrs}$ )
Restricted Elective Courses......................................................... 6 hours Six hours from the following:

TSLN501 Theoretical Foundations of Second-Language Pedagogy (3 hrs)
TSLN520 Foreign Language Testing and Evaluation (2 hrs)
FLAN611 Theory and Methods of Modern Language Teaching (3 hrs)
FLAN612 The Proficiency-Based Curriculum (3 hrs)
FLAN613 Using Technology in the Foreign Language Classroom (3 hrs)

Cognate Courses.
6 hours
Six hours in a related content area (not in the Department of Foreign Languages and Bilingual Studies), selected in consultation with a faculty adviser.

Culminating Experience Courses.............................................1-3 hours
Program Total 31-33 hours

Note:
*A maximum of nine hours of undergraduate course work may be permitted in the earning of any graduate degree.

## MASTER OF ARTS in Foreign Language - Spanish (SPNH)

The goal of the master of arts in foreign language program is to bring candidates to a superior level of proficiency in the chosen foreign language as defined by the ILR/ACTFL scale, as well as to provide a broad knowledge of the geography and cultures of the regions where the target language is spoken, and to improve overall teaching effectiveness.

## Objectives

General objectives of the program include:

1. Development of superior-level skills in listening, speaking, reading and writing in the chosen foreign language;
2. Incorporation of current pedagogies into the candidates' personal teaching styles; and
3. Analysis of current cultural patterns, literary material and/or technical information.

## Admission Requirements

1. Candidates must hold undergraduate majors or minors in the language of their specialization, with an overall undergraduate grade point average of 2.75 , and a grade point average of 3.0 in courses in the target language.
2. Candidates must complete an oral proficiency interview in the language of their specialization with a rating of "advanced."
3. Conditional admission may be granted to candidates with deficiencies in target language proficiency. Such candidates must successfully complete deficiency courses including, but not limited to, SPNH443 Advanced Spanish Grammar and Composition and SPNH444 Advanced Spanish Conversation and Composition. Graduate credit will not be granted for these courses.
4. Applications will be reviewed by the faculty of the language area of specialization.

## Program Requirements

Students in all programs must complete a cultural immersion experience of at least six weeks in a country where the target language is predominant. Students who believe they have already fulfilled this requirement may petition to have the requirement waived or reduced; if the petition is approved, the candidate may substitute up to six hours of restricted electives. Students may satisfy this requirement through the intensive immersion experience offered in their language program. Similar programs of study with corroborating documentation may be accepted upon approval of the faculty of the area of concentration. Students should select a study abroad program in consultation with a faculty adviser prior to enrollment in any such program.

Students must, in consultation with a faculty adviser, complete a culminating experience such as a master's examination, a piece of data-based research or a thesis.

## Course Requirements

The M.A. in foreign language - Spanish requires 31 to 33 hours of course work to be distributed among required courses, restricted elective courses, cognate courses and a culminating experience course as follows:

## Required Courses. 18 hours <br> SPNH610 Intensive Summer Program in Spani....................................................... <br> SPNH620 Spanish Grammar and Syntax (2 hrs) <br> SPNH621 Graduate Spanish Conversation (2 hrs) <br> *Two to eight additional hours in 500- or 600-level Spanish or any of the following 400-level Spanish courses: <br> SPNH445 Spanish-American Prose (3 hrs) <br> SPNH448 Modern Drama (3 hrs) <br> SPNH449 Romanticism (3 hrs) <br> SPNH454 Modernism in Spanish America (3 hrs) <br> SPNH455 The Generation of 1898 (3 hrs) <br> SPNH463 Don Quixote (3 hrs) <br> SPNH464 Drama of the Golden Age (3 hrs) <br> SPNH465 Modern Novel (3 hrs) <br> SPNH471 Culture and Literature of the Hispanic Groups in the United States (3 hrs) <br> Restricted Elective Courses <br> 6 hours Six hours from the following: <br> TSLN501 Theoretical Foundations of Second-Language Pedagogy (3 hrs) <br> TSLN520 Foreign Language Testing and Evaluation (2 hrs) <br> FLAN611 Theory and Methods of Modern Language Teaching (3 hrs) <br> FLAN612 The Proficiency-Based Curriculum (3 hrs) <br> FLAN613 Using Technology in the Foreign Language Classroom (3 hrs)

Cognate Courses......................................................................... 6 hours
Six hours in a related content area (not in the Department of Foreign Lan-
guages and Bilingual Studies), selected in consultation with a faculty adviser.
Culminating Experience Courses

1-3 hours

Program Total
31-33 hours

[^5]
## Graduate Certificate Program in Hispanic Language and Cultures (HLC)

The graduate certificate program in Hispanic language and cultures is designed to assist candidates in attaining high levels of skill in the Spanish language and greater knowledge of Hispanic cultures. Successful students will gain greater competence in both oral and written expression as well as enhance their knowledge of selected facets of Hispanic life through analysis of current cultural patterns, including those of business and technology.

```
Required Courses.
    ..................................................................... 1
        10 hours
    SPNH610 Intensive Summer Program in Spanish (6 hrs)
    SPNH620 Spanish Grammar and Syntax (2 hrs)
    SPNH621 Graduate Spanish Conversation (2 hrs)
Elective Courses.......................................................................... 3 hours
    One course from the following:
        SPNH646 Spanish for Business Practices (3 hrs)
        SPNH647 Spanish for Business Practices (3 hrs)
        SPNH682 U.S. Dialects of Spanish (3 hrs)
```

Program Total

## Graduate Certificate Program in German for Business Practices (GRNB)

The graduate certificate program in German for business practices is designed for candidates who want to acquire professional proficiency in the idiom of business German and sensitize themselves to German business culture. They will accomplish this through intensive practice in speaking and writing as well as through analysis of current cultural patterns in various business contexts.

## Admission Requirements

1. Candidates must hold an undergraduate major or minor in German, with an overall grade point average of 2.75 and a grade point average of 3.0 in courses taken in German.
2. Candidates must complete an oral proficiency interview in German with a rating of "advanced." This is a 30-minute interview in German during which the candidate must demonstrate the ability to satisfy routine social situations and limited work requirements.
3. Conditional admission may be granted to candidates evidencing deficiencies in German proficiency. Such candidates must successfully complete deficiency courses chosen in consultation with the German faculty.
Required Courses........................................................................ 6 hours
GERN646 German Business Practices $(3 \mathrm{rrs})$
GERN647 German Business Practices $(3 \mathrm{hrs})$
Elective Courses.

6 hours
Six hours from the following:

GERN610 Intensive German in Europe (6 hrs)
GERN620 Advanced German Syntax and Conversation (3 hrs)
GERN621 Advanced Conversation in German (3 hrs)

Program Total 12 hours

## Graduate Certificate Program in Japanese Language Teaching (JLT)

The graduate certificate program in Japanese language teaching is designed to assist applicants in attaining the equivalent of a superior level of proficiency in the Japanese language, as well as a broad knowledge of the geography and cultures of the regions where the Japanese language is spoken, and to improve overall teaching effectiveness.

```
Admission Requirements
1. Applicants in this graduate certificate program must demonstrate at least intermediate low level of Japanese proficiency using the ACTFL's Oral Proficiency Interview or Level 4 of the Japanese Proficiency Test developed by the Japan Foundation, or equivalent.
2. Conditional admission may be granted to candidates evidencing deficiencies in Japanese proficiency. Such candidates must successfully complete deficiency courses including, but not limited to, JPNE344 Japanese Conversation, JPNE345 Japanese Composition, and JPNE444 Advanced Japanese Conversation.
3. Submit a copy of Japanese Teaching Certification or Departmental permission.
4. Submit a statement of reasons for pursuing this certificate
5. Meet the requirements for admission to the graduate school
```

This certificate requires 14 hours of course work to be distributed as follows:

```
Required Courses.
``` \(\qquad\)
``` .12 hours FLAN611 Theory and Methods of Modern Language Teaching (3 hrs) FLAN613 Using Technology in the Foreign Language Classroom (3 hrs) JPNE544 Graduate Japanese Conversation (3 hrs) JPNE 594 Intensive Seminar in Japanese Studies (3 hrs)
```


## Elective Courses

$\qquad$ .2 hours One course from the following: CURR510 Developing Creativity in the Classroom (2 hrs) CURR552 The Pedagogy of Group Learning (2 hrs) CURR650 Improving Instruction through Inquiry and Assessment (2 hrs)
FLAN540 Cultural Issues in Language Teaching (2 hrs) FLAN612 The Proficiency-Based Curriculum (2 hrs) RDNG506 Storytelling (2 hrs)
SOFD535 Multi-cultural and International Education (2 hrs)
TSLN501 Theoretical Foundation of Second-Language Pedagogy (2 hrs)
TSLN520 Foreign Language Testing and Evaluation (2 hrs)
Program Total $\qquad$ 14 hours

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

[^6]FRNH446 Business French I (3 hrs)
FRNH447 Business French II (3 hrs)
FRNH451 Readings in French (1 hr)
FRNH452 Readings in French (2 hrs)
German Courses:
GERN425 German Literature from the Middle Ages to the Baroque (3 hrs)
GERN426 German Literature from 1750-1850 (3 hrs)
GERN427 German Literature from 1850-1945 (3 hrs)
GERN428 German Literature from 1945 to the Present (3 hrs)
GERN443 German Syntax and Advanced Composition (3 hrs)
GERN444 Advanced German Conversation (3 hrs)
GERN451/452 Readings in German ( $1 / 2 \mathrm{hrs}$ )
GERN456 Technical German I (3 hrs)
GERN457 Technical German II (3 hrs)
Japanese Courses:
JPNE494 Seminar in Japanese Studies (3 hrs)
Spanish Courses:
SPNH444 Advanced Spanish Conversation and Composition (3 hrs)
SPNH445 Spanish-American Prose (3 hrs)
SPNH448 Modern Drama (3 hrs)
SPNH449 Romanticism (3 hrs)
SPNH454 Modernism in Spanish America (3 hrs)
SPNH455 The Generation of 1898 (3 hrs)
SPNH456 Scientific and Technical Spanish I (3 hrs)
SPNH457 Scientific and Technical Spanish II (3 hrs)
SPNH465 Modern Novel (3 hrs)
SPNH471 Culture and Literature of the Hispanic Groups in the United States (3 hrs)
SPNH482 Language of the Hispanic Groups in the United States (3 hrs)

General Language and Bilingual-Bicultural Education Courses:
FLAN421 History and Theory of Bilingual Education (3 hrs)
FLAN490 Internship in Language and International Trade (3 hrs)
Language Courses:
LNGE425 Second Language Acquisition (3 hrs)
TESOL Courses:
TSLN410 TESOL Methods (3 hrs)

## Department of Geography and Geology

Campus Address: 205 Strong<br>Internet: www.emich.edu/public/geo/welcome.html Telephone: 734.487.0218<br>E-mail: yichun.xie@emich.edu

See pages 202, 204, 207 and 209 for course descriptions.

The department offers master of science degrees in geographic information systems (GIS); urban and regional planning; historic preservation - general studies; historic preservation - conservation and technology; historic preservation - heritage interpretation; historic preservation - tourism and administration; historic preservation - planning; and graduate certificates in historic preservation, GIS and water resources.

The department awards several graduate assistantships each year, providing cash stipends and full tuition for 18 hours for each fiscal year of the assistantship, as well as registration and general fee. Fellowships are also awarded, when finances permit, to qualified students with high GPAs who may or may not be receiving other financial assistance.

## MASTER OF SCIENCE in Urban and Regional Planning (URP)

http://planning.emich.edu

## Objectives

The M.S. in urban and regional planning prepares students to work in city and regional planning agencies and private consulting firms, where they will be highly desired because of this degree's emphasis on skills in land use and environmental planning and Geographic Information Systems (GIS).

## Admission Requirements

1. 2.75 GPA from a regionally accredited undergraduate institution and/or at least 1500 on the aptitude test of the GRE
2. International students must receive a minimum score on the TOEFL language examination. See Admissions Web site for minimum scores.
3. A minimum of two letters of recommendation, preferably one from a professor in the student's major/minor field of study and one from an employer. If the student does not have related work experience then two letters from faculty members in the student's major or minor field of study will be required.
4. Class status: undergraduate degree from an accredited college/ university; senior standing for conditional admission.

## Course Requirements

The M.S. in urban and regional planning requires 36 credit hours of course work distributed among required courses, elective courses and thesis or internship courses as follows.

```
Required Courses
30-32 hours
GEOG553 Urban and Regional Planning (2 hrs)
GEOG555 Comprehensive Planning (2 hrs)
GEOG556 Zoning (2 hrs)
GEOG557 Community Development and Downtown Revitalization (3 hrs)
GEOG559/GHPR559 Urban Planning/Preservation Studio (3 hrs)
GEOG579 Geographic Information Systems (2 hrs)
GEOG581 Advanced Environmental Assessment (3 hrs)
GEOG585 GIS Applications (3 hrs)
GEOG674 Professional Publication/Report (2 hrs)
GEOG677 Seminar in Methods and Research (2 hrs)
PLSC655 Politics of Local Planning (2 hrs)
*One of the following internship courses or equivalent: GEOG687 Internship ( 4 hrs )
GEOG688 Internship (5 hrs)
GEOG689 Internship (6 hrs)
```

Restricted Elective Courses $\qquad$ .4-6 hours
Four to six hours from the following: BIOL524 Conservation (2 hrs) CTAC508 Small Group Decision Making (2 hrs) CTAC509 Communication for Leaders ( 2 hrs ) CTAC510 Listening Skills for Professionals (2 hrs) ENGL524 Advanced Technical Writing (3 hrs) GEOG570 Rural Planning and Preservation (2 hrs) GEOG575 Interpretation of Aerial Photography (3 hrs) GEOG580 Urban Environment Management (2 hrs) GEOG582 Remote Sensing of Earth Resources (3 hrs) GEOG584 Visual Programming for GIS Customization (3 hrs) GEOG668 GIS Project (2 hrs) GEOG678 Advanced Applications of GIS (3 hrs) GHPR530 Introduction to Historic Preservation (2 hrs)

GHPR638 Preserving Community Character (2 hrs)
PLSC510 Modern Public Administration (3 hrs)
SOCL656 Human Ecology and Community Development (3 hrs)
Program Total
36 hours
Note:
*Equivalency: If a student is employed in a planning position, a portfolio of work completed during employment may substitute for the internship requirement and credits. The acceptability of the portfolio will be determined by the program adviser. If an internship is not feasible, a student may request a six credit thesis to replace the Internship and Professional Publication/Report requirements.

## MASTER OF SCIENCE in Geographic Information Systems (GIS)

www.emich.edu/public/geo/geography/GISUrban.htm

## Objectives

The M.S. in geographic information systems (GIS) prepares students to work as GIS analysts, applied researchers and consultants providing expertise in this area of computer mapping analysis and application development. GIS technologies are widely utilized in the U.S. and abroad and there is a high demand for these skills.

## Admission Requirements

1. 2.75 GPA from a regionally accredited undergraduate institution and/or at least 1500 on the aptitude test of the GRE
2. International students must receive a minimum score on the TOEFL language examination. See Admissions Web site for minimum scores.
3. A minimum of two letters of recommendation, preferably one from a professor in the student's major/minor field of study and one from an employer. If the student does not have related work experience then two letters from faculty members in the student's major or minor field of study will be required.
4. Class status: undergraduate degree from an accredited college/ university; senior standing for conditional admission.

## Course Requirements

The M.S. in geographic information systems requires 36 credit hours of course work distributed among required courses, elective courses and thesis or internship courses as follows.

```
Required Courses..
                                    28-30 hours
    GEOG553 Urban and Regional Planning (2 hrs)
    GEOG555 Comprehensive Planning (2 hrs)
    GEOG575 Interpretation of Aerial Photography (3 hrs)
    GEOG579 Geographic Information Systems (2 hrs)
    GEOG581 Advanced Environmental Assessment (3 hrs)
    GEOG584 Visual Programming for GIS Customization (3 hrs)
    GEOG677 Seminar in Methods and Research (2 hrs)
    GEOG678 Advanced Applications of GIS (3 hrs)
    GEOG668 GIS Project (2 hrs)
    GEOG674 Professional Publication/Report (2 hrs)
    *One of the following internship courses or equivalent:
        GEOG687 Internship (4 hrs)
        GEOG688 Internship (5 hrs)
        GEOG689 Internship (6 hrs)
Restricted Elective Courses..................................................5-7 hours
    Four to six hours from the following:
        BIOL524 Conservation (2 hrs)
        CTAC508 Small Group Decision Making (2 hrs)
        CTAC509 Communication for Leaders (2 hrs)
        CTAC510 Listening Skills for Professionals (2 hrs)
        ENGL524 Advanced Technical Writing (3 hrs)
        GEOG556 Zoning (2 hrs)
```

```
GEOG557 Community Development and Downtown Revitalization (3 hrs)
GEOG570 Rural Planning and Preservation (2 hrs)
GEOG580 Urban Environment Management (2 hrs)
GEOG582 Remote Sensing of Earth Resources (3 hrs) GEOG585 GIS Applications (3 hrs)
GHPR530 Introduction to Historic Preservation (2 hrs)
GHPR638 Preserving Community Character (2 hrs)
PLSC510 Modern Public Administration (3 hrs)
PLSC655 Politics of Local Planning (2 hrs)
SOCL656 Human Ecology and Community Development (3 hrs)
```

Program Total $\qquad$ 36 hours

## Note:

*Equivalency: If a student is employed in a GIS position, a portfolio of work completed during employment may substitute for the internship requirement and credits. The acceptability of the portfolio will be determined by the program adviser. If an internship is not feasible, a student may request a six credit thesis to replace the Internship and Professional Publication/Report requirements.

## MASTER OF SCIENCE in Historic Preservation - General Studies (HPRS)

www.emich.edu/public/geo/geography/hp.htm
The M.S. in historic preservation - general studies requires a minimum of 36 hours. The master's curriculum emphasizes preparation for careers in historic preservation in a planning, administrative, historic museum, consulting or heritage tourism capacity. It provides practical experience through work study, internship, cooperative education and field study opportunities.

## Admission Requirements

Degree Admission
Applicants must:

1. Have a bachelor's degree from an accredited institution;
2. Meet Graduate School admission requirements; and
3. Have attained at least a 2.75 grade point average in the major field during the last two undergraduate years.
In addition to applying to the Graduate School, the applicant must obtain program application forms from the historic preservation coordinator and follow all application procedures.

## Conditional and Non-Degree Admission

Otherwise promising students who do not meet Graduate School or departmental undergraduate GPA requirements may be granted non-degree admission. Students who fulfill the probationary requirements of non-degree admission may be granted regular admission.

## Degree Requirements

1. Selection, in consultation with the program adviser, of a course of study in historic preservation.
2. Completion of 36 hours of approved graduate-level course work beyond the bachelor's degree as described below under course requirements.
3. Completion of prerequisite courses. The number of hours and the specific courses will be stipulated by the program adviser according to the student's prior course work.

## Prerequisites

Students must complete course work in each of the following foundation areas or have acceptable undergraduate equivalent, in which case the course may be waived.

ART429 History of American Architecture (3 hrs)<br>GEOG333 Settlement Geography (3 hrs)<br>GHPR475 Architectural Nomenclature (2 hrs)<br>HIST123 The United States to 1877 ( 3 hrs )<br>HIST124 The United States, 1877 to the Present (3 hrs)<br>One course from the following:<br>GEOG446 Heritage Interpretation and Tourism (3 hrs) GPLN435 History of Urban Form and Function (3 hrs)

## Course Requirements

The M.S. in historic preservation - general studies requires 36 credit hours of course work to be distributed among core, required and restricted elective courses as follows:

```
Core Courses
                                    16-18 hours
    GHPR530 Introduction to Historic Preservation (2 hrs)
    GEOG531 American Cultural Landscapes (2 hrs)
    GHPR547 Problems in Architectural Interpretation (2 hrs)
    GEOG548 American Vernacular Architecture (2 hrs)
    GHPR551 Principles of Building Technology (2 hrs)
    GHPR620 Preservation Research Techniques (2 hrs)
    GHPR636 Historic Preservation Field Methods (3 hrs)
    GHPR690/691/692 Individual Preservation Project (1/2/3 hrs)
```


## Required Courses

13-14 hours Courses are chosen that create a focused hist................................................... proach in an area of concentration of the student's choosing, selected with advisor approval. Courses may be chosen from relevant historic preservation, geography or geographic information systems and planning program offerings.

Restricted Elective Courses
..8-10 hours
Courses may include any other relevant historic preservation-related electives including appropriate cognate courses.

Program Total
.36 hours

## MASTER OF SCIENCE in Historic Preservation - Conservation and Technology (HP/CT)

www.emich.edu/public/geo/geography/hp.htm
The M.S. in historic preservation-conservation and technology requires a minimum of 36 hours. The master's curriculum emphasizes preparation for careers in museum, historic building technologies or architectural conservation. It provides practical experience through work study, internship, cooperative education and field study opportunities.

## Admission Requirements

## Degree Admission

Applicants must:

1. Have a bachelor's degree from an accredited institution;
2. Meet Graduate School admission requirements; and
3. Have attained at least a 2.75 grade point average in the major field during the last two undergraduate years.

In addition to applying to the Graduate School, the applicant must obtain program application forms from the historic preservation coordinator and follow all application procedures.

## Conditional and Non-Degree Admission

Otherwise promising students who do not meet Graduate School or departmental undergraduate GPA requirements may be granted non-degree admission. Students who fulfill the probationary requirements of non-degree admission may be granted regular admission.

## Degree Requirements

1. Selection, in consultation with the program adviser, of a course of study in historic preservation.
2. Completion of 36 hours of approved graduate-level course work beyond the bachelor's degree as described below under course requirements.
3. Completion of prerequisite courses. The number of hours and the specific courses will be stipulated by the program adviser according to the student's prior course work.

## Prerequisites

Students must complete course work in each of the following foundation areas or have acceptable undergraduate equivalent, in which case the course may be waived.

```
ART429 History of American Architecture (3 hrs)
CHEM117/118 Fundamentals of Chemistry: Lecture/Lab (4 hrs)
GEOG333 Settlement Geography (3 hrs)
GHPR475 Architectural Nomenclature (2 hrs)
Choose one of the following:
    HIST123 The United States to 1877 (3 hrs)
    HIST124 The United States,1877 to the Present (3 hrs)
```

Core Courses
16-18 hours
GHPR530 Introduction to Historic Preservation (2 hrs)
GEOG531 American Cultural Landscapes (2 hrs)
GHPR547 Problems in Architectural Interpretation (2 hrs)
GEOG548 American Vernacular Architecture (2 hrs)
GHPR551 Principles of Building Technology (2 hrs)
GHPR620 Preservation Research Techniques (2 hrs)
GHPR636 Historic Preservation Field Methods (3 hrs)
GHPR690/691/692 Individual Preservation Project (1/2/3 hrs)
Concentration Courses
.12 hours
GHPR546 International Preservation: Historic Applications (2 hrs)
GHPR552 Material Conservation I ( 2 hrs )
GHPR572 Funding Preservation Projects (2 hrs)
GHPR630 Documenting Historic Places (2 hrs)
GHPR651 Principles of Preservation Technology (2 hrs)
GHPR652 Material Conservation II (2 hrs)
Restricted Elective Courses .....................................................6-8 hour
Courses selected with advisor approval
GHPR532 Introduction to Curatorship (3 hrs)
GHPR533 Introduction to Historic Administration (2 hrs)
GHPR539 American Decorative Arts (3 hrs)
GHPR695/696 Seminar in Preservation Issues ( $2 / 3 \mathrm{hrs}$ )
GHPR 697/698/699 Independent Study ( $1 / 2 / 3 \mathrm{hrs}$ )
And other relevant Historic Preservation Program electives with
permission of program advisor.
Program Total
36 hours

# MASTER OF SCIENCE in Historic Preservation - Heritage Interpretation, Tourism and Administration (HPRS) 

www.emich.edu/public/geo/geography/hp.htm

The M.S. in historic preservation-heritage interpretation, tourism and administration requires a minimum of 36 hours. The master's curriculum emphasizes preparation for careers in historic preservation in an administrative, historic museum, consulting or heritage tourism capacity. It provides practical experience through work study, internship, cooperative education and field study opportunities.

## Admission Requirements

## Degree Admission

Applicants must:

1. Have a bachelor's degree from an accredited institution;
2. Meet Graduate School admission requirements; and
3. Have attained at least a 2.75 grade point average in the major field during the last two undergraduate years.

In addition to applying to the Graduate School, the applicant must obtain program application forms from the historic preservation coordinator and follow all application procedures.

## Conditional and Non-Degree Admission

Otherwise promising students who do not meet Graduate School or departmental undergraduate GPA requirements may be granted non-degree admission. Students who fulfill the probationary requirements of non-degree admission may be granted regular admission.

## Degree Requirements

1. Selection, in consultation with the program adviser, of a general course of study in historic preservation.
2. Completion of 36 hours of approved graduate-level course work beyond the bachelor's degree as described below under course requirements.
3. Completion of prerequisite courses. The number of hours and the specific courses will be stipulated by the program adviser according to the student's prior course work.

## Prerequisites

Students must complete course work in each of the following foundation areas or have acceptable undergraduate equivalent, in which case the course may be waived.

> ART429 History of American Architecture (3 hrs)
> GEOG333 Settlement Geography ( 3 hrs )
> GEOG446 Heritage Interpretation and Tourism (3 hrs)
> GHPR475 Architectural Nomenclature (2 hrs)
> HIST123 The United States to 1877 ( 3 hrs )
> HIST124 The United States, 1877 to the Present ( 3 hrs )

## Course Requirements

The M.S. in historic preservation - heritage interpretation, tourism and administration requires 36 hours of course work to be distributed among core and restricted elective courses as follows:

Core Courses 16-18 hours
GHPR530 Introduction to Historic Preservation (2 hrs)
GEOG531 American Cultural Landscapes (2 hrs)
GHPR547 Problems in Architectural Interpretation (2 hrs)
GEOG548 American Vernacular Architecture ( 2 hrs )
GHPR551 Principles of Building Technology (2 hrs)
GHPR620 Preservation Research Techniques ( 2 hrs )
GHPR636 Historic Preservation Field Project (3 hrs)
GHPR690/691/692 Historic Preservation Project (1/2/3 hrs)
Required Courses.
13 hours
GHPR532 Introduction to Curatorship (3 hrs)
GHPR533 Introduction to Historic Administration (2 hrs)
GHPR534 Community Interpretation and Appropriate Tourism (3 hrs)
GHPR537 Interpretive Programming for Organizations (3 hrs)
GHPR538 Historic Preservation and Tourism (2 hrs)
Restricted Elective Courses .................................................... $4-7$ hours
Courses selected with adviser approval
GEOG445G Cultural Tourism Resources (3 hrs)
GHPR539 American Decorative Arts (3 hrs)
GEOG541 Material Culture: A Disciplinary Review (3 hrs)
GEOG549 Cultural Landscape Interpretation (2 hrs)

GHPR572 Funding Preservation Projects (2 hrs) GHPR630 Documenting Historic Places (2 hrs) GHPR632 Interpreting the Historic House (3 hrs) GHPR587 Coop-Education in Cultural Resource Management (3 hrs) GHPR687/688/689 Internship (4/5/6 hrs) And other relevant Historic Preservation Program electives andlor selected cognates, with permission of program advisor.

Program Total
36 hours

# MASTER OF SCIENCE in Historic Preservation - Preservation Planning (HPPP) 

www.emich.edu/public/geo/geography/hp.htm

The M.S. in historic preservation-preservation planning requires a minimum of 36 hours. The master's curriculum emphasizes preparation for careers in historic preservation in a planning, administrative, historic agency, consulting or heritage tourism capacity. It provides practical experience through work study, internship, cooperative education and field study opportunities.

## Admission Requirements

## Degree Admission

Applicants must:

1. Have a bachelor's degree from an accredited institution;
2. Meet Graduate School admission requirements; and
3. Have attained at least a 2.75 grade point average in the major field during the last two undergraduate years.

In addition to applying to the Graduate School, the applicant must obtain program application forms from the historic preservation coordinator and follow all application procedures.

## Conditional and Non-Degree Admission

Otherwise promising students who do not meet Graduate School or departmental undergraduate GPA requirements may be granted non-degree admission. Students who fulfill the probationary requirements of non-degree admission may be granted regular admission.

## Degree Requirements

1. Selection, in consultation with the program adviser, of a general course of study in historic preservation-preservation planning.
2. Completion of 36 hours of approved graduate-level course work beyond the bachelor's degree as described below under course requirements.
3. Completion of prerequisite courses. The number of hours and the specific courses will be stipulated by the program adviser according to the student's prior course work.

## Foundation/prerequisite courses:

Students must complete course work in each of the following foundation areas or have acceptable undergraduate equivalent, in which case the course may be waived.

ART429 History of American Architecture (3 hrs)
GEOG333 Settlement Geography (3 hrs)
GHPR475 Architectural Nomenclature (2 hrs)
GHPR401/GPLN401 Planning/Preservation Graphics (3 hrs)
One course from the following:
GEOG332 Urban Geography (3 hrs)
GPLN435 History of Urban Form and Function (3 hrs)

## One course from the following:

HIST123 The United States to 1877 (3 hrs)
HIST124 The United States, 1877 to the Present (3 hrs)

## Course Requirements

The M.S. in historic preservation-preservation planning requires 36 hours of course work to be distributed among core and restricted elective courses as follows:
Core Courses

$\qquad$
16-18 hours

GHPR530 Introduction to Historic Preservation (2 hrs)

GEOG531 American Cultural Landscapes (2 hrs)

GHPR547 Problems in Architectural Interpretation (2 hrs)

GEOG548 American Vernacular Architecture ( 2 hrs )

GHPR551 Principles of Building Technology (2 hrs)

GHPR620 Preservation Research Techniques ( 2 hrs )

GHPR636 Historic Preservation Field Project (3 hrs)

GHPR690/691/692 Historic Preservation Project (1/2/3 hrs)

Required Courses.. $\qquad$ 12 hours
GHPR531 Preservation and Planning Law ( 3 hrs )
GEOG553 City and Regional Planning (2 hrs)
GHPR557 Downtown Planning and Revitalization (3 hrs)
GHPR630 Documenting Historic Places (2 hrs)
GHPR631 Preservation Planning and Administration (2 hrs)
Restricted Elective Courses. 10-13 hours
Courses selected with adviser approval
GHPR532 Introduction to Curatorship (3 hrs) GHPR534 Community Interpretation and Appropriate Tourism (3 hrs)
GHPR538 Historic Preservation and Tourism (2 hrs)
GHPR539 American Decorative Arts (3 hrs)
GEOG541 Material Culture: A Disciplinary Overview (3 hrs)
GHPR546 International Preservation (2 hrs)
GEOG549 Cultural Landscape Interpretation ( 2 hrs )
GHPR552 Materials Conservation I (2 hrs)
GEOG555 Comprehensive Planning (2 hrs)
GEOG556 Zoning (2 hrs)
GHPR558 Adaptive Use (2 hrs)
GHPR559 Urban Planning and Preservation Studio (3 hrs)
GEOG570 Rural Planning and Preservation (2 hrs)
GHPR572 Funding Preservation Projects (2 hrs)
GHPR587 Cooperative Education in Cultural Resource Management (3 hrs)
GEOG579 Geographic Information Systems (2 hrs) GHPR632 Interpreting the Historic House ( 3 hrs )
GHPR638 Preserving Community Character (2 hrs)
CNST648 Principles of Construction Technology (2 hrs)
GHPR651 Preservation Technology (2 hrs)
GHPR687/688/689 Internship (4/5/6 hrs)
GHPR 694 Seminar in Neighborhood Preservation (2 hrs) GHPR695/696 Seminar in Historic Preservation (3-6 hrs)
Other relevant electives, including any historic preservation (GHPR) or planning course not already listed above, with permission of program adviser.

Program Total . 36 hours

## GRADUATE CERTIFICATE IN Geographic Information Systems (GIS) for Educators

A five-course curriculum, granting a certificate of completion and satisfactory academic performance, is available for non-degree students. It is designed primarily for K-16 teachers, curriculum specialists and others interested in GIS applications in classrooms and school environments.

## Admission Requirements

Certificate curriculum applicants must have a bachelor's degree from an accredited institution and meet Graduate School non-degree student status requirements.

## Certificate Requirements

Following admission, the student should consult with the GIS educator's certificate program coordinator regarding the set up of a study plan. This certificate requires 15 hours of required course work as follows:

Restricted Elective Courses
.15 hours
GEOG520 GIS Introduction for Educators (3 hrs)
GEOG522 Internet GIS Resources for Educators (3 hrs)
GEOG524 GIS As an Instructional Tool in Classrooms (3 hrs) GEOG667 School GIS Projects (3 hrs)
GEOG669 GIS Lesson Plan Development (3 hrs)
Certificate Total.
.15 hours

## GRADUATE CERTIFICATE IN

Geographic Information Systems (GIS) for Professionals
A five-course curriculum, granting a certificate of completion and satisfactory academic performance, is available for non-degree students. It is designed for GIS specialists, technicians, planners, information technology professionals and others interested in using geographic information technology in jobs or for careers.

## Admission Requirements <br> Certificate curriculum applicants must have a bachelor's degree from an accredited institution and meet Graduate School non-degree student status requirements.

## Certificate Requirements

Following admission, the student should consult with the GIS professional certificate program coordinator regarding the set up of a study plan. This certificate requires 15 hours of required course work as follows:

Restricted Elective Courses ....................................................... 15 hours
GEOG579 Geographic Information Systems (3 hrs)
GEOG584 Visual Programming for GIS Customization (3 hrs)
GEOG585 GIS Applications (3 hrs)
GEOG668 GIS Project (3 hrs)
GEOG678 Advanced Applications of GIS (3 hrs)
Certificate Total. .15 hours

## GRADUATE CERTIFICATE in Historic Preservation (HPRS)

A five-course curriculum, granting a certificate for completion and satisfactory academic performance, is available for non-degree students. It is designed for planners, historic-district commissioners and others interested in the preservation field.

## Admission Requirements

Certificate curriculum applicants must have a bachelor's degree from an accredited institution and meet Graduate School non-degree student status requirements.

## Certificate Requirements

Following admission, the student should consult with the historic preservation program coordinator regarding completion of the course requirements. This certificate requires 11 to 14 hours of course work distributed among required courses and restricted elective courses as follows:
Required Courses. ..... 5 hours
*ART429 History of American Architecture (3 hrs)GHPR530 Introduction to Historic Preservation (2 hrs)
Restricted Elective Courses. ..... $.7-9$ hours
Six to nine hours from the following:
GHPR531 Preservation and Planning Law (3 hrs)
GHPR620 Preservation Research Techniques (2 hrs)
GHPR651 Principles of Preservation Technology (2 hrs)
GHPR695/696 Seminar in Preservation Issues ( $2 / 3 \mathrm{hrs}$ )
*GPLN435 History of Urban Form and Function (3 hrs)
GEOG531 American Cultural Landscapes ( 2 hrs )
GEOG548 American Vernacular Architecture (2 hrs)
GEOG570 Rural Planning and Preservation (2 hrs)
Any 500- or 600-level GHPR courses except GHPR587,GHPR637, GHPR687/688/689, GHPR690/691/692and GHPR697/698/699

# GRADUATE CERTIFICATE in Public Land Planning and Development Management (PLP) 

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE IN Water Resources (WTRS)

See page 35 for Interdisciplinary studies listings.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

## Historic Preservation Courses:

GHPR475 Architectural Nomenclature (2 hrs)

## Geography Courses:

GEOG441 Transportation Geography and Planning (3 hrs)
GEOG445 Cultural Tourism Resources (3 hrs)
GEOG446 Heritage Interpretation and Tourism ( 3 hrs )
GEOG477/478/479 Special Topics ( $1 / 2 / 3 \mathrm{hrs}$ )
GEOG480 Geographic Information Systems Projects (3 hrs)
GPLN435 History of Urban Form and Function (3 hrs)
GPLN495/ESSC495 Environmental Assessment and Planning (3 hrs)
Earth Science Courses:
ESSC425 Severe and Unusual Weather (3 hrs)
ESSC428 Optical Mineralogy (3 hrs)
ESSC430 Petroleum Geology (3 hrs)
ESSC439 Economic Geology (3 hrs)
ESSC448 Hydrogeology (3 hrs)

ESSC450 Lake and Coastal Management (3 hrs)
ESSC459 Aquifer Analysis (3 hrs)
ESSC460 Contaminant Hydrology (3 hrs)
ESSC470 Quantitative Methods in Geography and Geology (3 hrs)
ESSC485 Introduction to Remote Sensing (3 hrs)

# Department of History and Philosophy 

Campus Address: 701 Pray-Harrold<br>Internet: www.emich.edu/public/history/hisphi.html<br>Telephone: 734.487.1018<br>E-mail: philip.schmitz@emich.edu<br>See pages 209 and 230 for course descriptions.

The Department of History and Philosophy offers a master of arts degree in history and coordinates an interdisciplinary master of arts in social science and a master of liberal studies in social science and American culture. Graduate and advanced graduate certificates in state and local history are also offered.

## MASTER OF ARTS in History (HST)

Objectives
The master of arts in history enables students to acquire both general and specific knowledge concerning the human past. The program features specialization and breadth in subject matter. It also incorporates instruction in historiography and methodology as well as practice in research and writing. Students learn to locate, assess and present historical data from primary and secondary sources. This helps students refine their understanding of the meaning and matter of history. The degree can serve as preparation for teaching at the secondary level, for positions in government or business or for further graduate work at the doctoral level.

## Admission Requirements

Applicants must:

1. Meet the Graduate School's admission requirements;
2. Complete at least 20 hours of undergraduate course work in history, with a GPA of at least 2.75 for all undergraduate history courses;
3. Have a minimum TOEFL score, if an international student (see the Admissions Web site for minimum scores); and
4. Prospective thesis program students must score at least 1600 on the GRE and demonstrate competency in a foreign language before being admitted to the program.

## Program Requirements

The master of arts in history requires successful completion of at least 30 hours and a comprehensive examination. The 30 hours may include up to nine hours of approved 400 -level courses. The comprehensive examination is given during the first week of December, and the first week of April, on a date and at a time announced at the beginning of each semester. Courses in history are divided into the following areas:

Area 1: United States
Area 2: Europe
Area 3: Other World Areas

The M.A. requires completion of one of the three following programs, which must be chosen by the time the candidate has completed at least 12 , but not more than 19 , hours of cognate work.

## Standard Program

Primarily for those interested in secondary, middle school or community college teaching, this program calls for 30 hours of course work and a comprehensive examination in each of two areas of concentration. The scope, nature and method of examination are determined by each examiner in consultation with the student. Course requirements for the standard program are as follows:

## Course Requirements

The M.A. in history requires 30 hours of course work to be distributed among required courses, restricted elective courses, elective courses in history and cognate courses as follows:

## Required Courses.. <br> .5 hours <br> *HIST505 Historical Method (3 hrs) HIST688 Historiography (2 hrs)

Restricted Elective Courses ................................................. 12-18 hours
$\dagger$ Three courses in each of two of the following three areas:
Area 1: United States
Area 2: Europe
Area 3: Other World Areas
Elective Courses in History $\qquad$ 1-13 hours One to 13 hours selected in consultation with..........................................

Cognate Courses. $\qquad$ 0-6 hours Zero to six hours selected in consultation with the graduate adviser.

Program Total 30 hours

## Note:

*Students entering the program without credit for a course in historical method must register for HIST505 during their first two semesters.
$\dagger$ Students with superior upper-division undergraduate performance in these areas may be permitted to substitute elective hours for some or all of these requirements, with approval of the graduate adviser.

## Thesis Program

Designed for those intending to pursue doctoral study in history, this program has additional admissions requirements as described in the standard program, and six hours of directed research, concluding with a thesis. In addition to a 2.75 undergraduate GPA in history, thesis program students must score at least 1600 on the GRE before being admitted to the program, and show competency in a foreign language at the time of the submission of their thesis proposal. Foreign language competency may be satisfied by passing the Graduate Student Foreign Language Test (GSFLT) or by completing 12 hours of undergraduate credit either during the undergraduate program or as non-credit course work while pursuing the M.A. Course requirements for the thesis program are as follows:
Required Courses.

5 hours

*HIST505 Historical Method (3 hrs)

HIST688 Historiography (2 hrs)
Restricted Elective Courses ................................................. 12-18 hours $\dagger$ Three courses in each of two of the following three areas:

Area 1: United States
Area 2: Europe
Area 3: Other World Areas

[^7]Thesis 6 hours
Six hours from the following: HIST690/691/692 Thesis (1/2/3 hrs)

Program Total 30 hours

Note:
*Students entering the program without credit for a course in historical method must register for HIST505 during their first two semesters.
$\dagger$ Students with superior upper-division undergraduate performance in these areas may be permitted to substitute elective hours for some or all of these requirements, with approval of the graduate adviser.

## Local History Program (SLH)

Designed for those with a particular interest in regional and local history, this program requires the comprehensive examination in U.S. history and a written, oral or visual presentation resulting from original scholarly investigation. Course requirements are as follows:

```
Required Courses.
```

$\qquad$

``` 12-14 hours
    HIST505 Historical Method (3 hrs)
    HIST530 Urban Communities in U.S. History (3 hrs)
    HIST533 Studies and Techniques in Local History (3 hrs)
    HIST688 Historiography (2 hrs)
    One course from the following:
        HIST687 Cooperative Education in History (3 hrs)
        HIST689 Local History Internship (3 hrs)
        HIST690/691/692 Thesis (1/2/3 hrs)
        HIST597/598/599 Independent Study (1/2/3 hrs)
        HIST697/698/699 Independent Study (1/2/3 hrs)
```

    Restricted Elective Courses
    Select at least one course from group \(A\) and one from group \(B\) :
    Group A
            HIST482 The Age of Washington and Jefferson (3 hrs)
            HIST538 Studies in Colonial American History (2 hrs)
            HIST541 The United States, 1825-1860: Ferment and
                Reform (2 hrs)
            HIST583 Studies in the Civil War and Reconstruction (3 hrs)
            HIST585 Studies in 20th Century U.S. History (2 hrs)
        Group B
            HIST414 The Automobile Industry and Modern America (3 hrs)
            HIST463 United States Labor History (3 hrs)
            HIST525/WMST525 Technology, Social Change and the Role
                    of Women (3 hrs)
            HIST464 The Old West, 1540-1890 (3 hrs)
            HIST531 Studies in Black History (3 hrs)
            HIST532 Studies in Native American History (3 hrs)
            HIST535 Studies in the History of the Family in the United
                States (2 hrs)
            HIST687 Cooperative Education in History (3 hrs)
            HIST689 Local History Internship (3 hrs)
            HIST597/598/599 Independent Study (1/2/3 hrs)
            HIST697/698/699 Independent Study (1/2/3 hrs)
            Cognate Courses....................................................................4-6 hours
        Four to six hours selected from one cognate area (e.g., historic preservation)
        or topic (e.g. musical theatre), in consultation with the graduate adviser.
    Program Total 30 hours

## MASTER OF ARTS in Social Science (SOCS)

## Advising

In addition to these requirements, degree candidates must satisfy all of the general requirements of the Graduate School.

New students should arrange an early conference with the graduate adviser to plan their programs in detail.

All course selections must be approved by the graduate adviser before registration each semester.

## Objectives

The M.A. in social science is an interdisciplinary effort among the Economics; Geography and Geology; History and Philosophy; Political Science; and Sociology, Anthropology and Criminology departments, coordinated through the Department of History and Philosophy. Students in the program take courses in at least three of the five departments.

Because the master of arts in social science is interdisciplinary and does not require specialization, it is responsive to individual interests and curricular needs. The program can offer greater expertise to social studies teachers in the elementary and secondary schools. Students with career interests in business or government service can acquire the deeper knowledge and broader perspective that stem from graduate work in social science. In general, the program offers better understanding of the social, cultural, political, economic and geographic factors that shape human experience.

## Admission Requirements

Degree Admission
Applicants must:

1. Meet the Graduate School's admission requirements;
2. Have at least 30 hours of undergraduate courses in social science, an overall undergraduate GPA of at least 2.5; and
3. Have a minimum TOEFL score, if an international student (see Admissions Web site for minimum scores).

## Non-Degree Admission

Non-Degree admission may be granted to promising students who do not meet the above GPA requirements. Such students must maintain a B average to be granted degree admission. From at least nine to at most 12 hours earned during a non-degree status may be applied toward the M.A. degree, upon recommendation of the program coordinator of advising.

## Courses Requirements

The M.A. in social science requires the completion of 30 hours of course work to be distributed among major concentration courses, restricted elective courses and elective courses as follows:

[^8]Program Total .30 hours

## MASTER OF LIBERAL STUDIES in Social Science and American Culture (SSAC)

The M.L.S. in social science and American culture is interdisciplinary in design. The program stresses individual inquiry and diverse opportunities for educational development.

Objectives
The M.L.S. in social science and American culture, administered by the Department of History and Philosophy, draws upon courses in history and philosophy; art; communication and theatre arts; economics; English language and literature; foreign languages and bilingual studies; geography and geology; interdisciplinary technology; music and dance; political science; sociology, anthropology and criminology; and teacher education. This highly flexible program familiarizes students with a wide range of American cultures. It both helps students seeking employment in business, industry, or government and facilitates professional advancement for those already employed. The program also provides preparatory training for those desiring to teach or to pursue doctoral studies.

## Admission Requirements

Degree Admission
Applicants must:

1. Have completed a bachelor's degree, but no particular field or major is required;
2. Meet the GPA requirements for admission and for graduation established by the Graduate School; and
3. Have a minimum TOEFL score, if an international student (see Admissions Web site for minimum scores).

## Conditional Admission

Applicants not meeting the requirements for regular admission may follow the requirements for conditional admission in the department of primary concentration.

## Non-Degree Admission

Promising students who do not meet the undergraduate GPA requirement may be granted non-degree admission.

To facilitate course scheduling and field placements, prospective students should begin their studies during the fall semester.

## Program Requirements

The degree requires 30 hours of courses approved for graduate credit. These may include a maximum of nine hours in approved 400 -level undergraduate courses. In addition to 24 hours in the American history and complementary concentrations below, the student will complete one of the following options:

Option I: Three hours of electives in approved courses in departments participating in the program, and a three-hour independent study. A two-hour integrated examination (oral or written) in American culture, administered by a committee of at least two professors from departments involved in the student's program.

Option II: Three hours of electives in approved courses in departments participating in the program, and a three-credit-hour creative, scholarly or pedagogical special project supervised by a committee of at least two professors from departments involved in the student's program.

Option III: A thesis for six hours of credit. The thesis must relate to the student's course work in American culture and demonstrate an integrated knowledge of American life and thought. The thesis committee must consist of at least two professors from departments involved in the student's program.

## Course Requirements

The M.L.S. in social science and American culture requires the completion of 30 hours of course work to be distributed among American history concentration courses, complementary concentration courses, and culminating experience courses as follows:

American History Concentration .12 hours At least six hours from courses at the 500 -or 600 -level from the history list below.

Complementary Concentrations $\qquad$ 12-15 hours At least four hours of courses listed below from each of two or more of the participating departments

Culminating Experience
3-6 hours
Special Project (number varies by department) or Independent Study (697/698/699) for three hours or Thesis (690/691/692) for six hours.
$\qquad$

## Note:

*Departments participating in and courses constituting the master of liberal studies in social science and American culture are listed below.

## Department of History

HIST414 The Automobile Industry and Modern America (3 hrs)
HIST424 The United States from 1917 to 1941 (3 hrs)
HIST425 The United States from 1941 to 1963 (3 hrs)
HIST426 The United States from 1963 to the Present (3 hrs)
HIST463 United States Labor History (3 hrs)
HIST464 The Old West, 1540-1890 (3 hrs)
HIST465 United States Constitutional History (3 hrs)
HIST468 The American Mind to the Civil War (3 hrs)
HIST469 The American Mind Since the Civil War (3 hrs)
HIST482 The Age of Washington and Jefferson (3 hrs)
HIST531 Studies in Black History (3 hrs)
HIST532 Studies in Native American History (3 hrs)
HIST533 Studies and Techniques in Local History (3 hrs)
HIST535 Studies in the History of the Family in the United States (2 hrs)
HIST538 Studies in Colonial American History (2 hrs)
HIST541 The United States, 1825-1860: Ferment and Reform (2 hrs)
HIST583 Studies in the Civil War and Reconstruction (3 hrs)
HIST584 Studies in the Gilded Age (2 hrs)
HIST585 Studies in 20th Century U.S. History (2 hrs)
HIST586 United States in World Politics (2 hrs)

## Department of Art

ART429 History of American Architecture (3 hrs)

## Department of Communication and Theatre Arts

CTAT446 Contemporary Problems in Telecommunications (3 hrs)
CTAT537 Mass Communications ( 2 hrs )
CTAR562 American Theatre History (2 hrs)

## Department of Economics

ECON460 Industrial Organization (3 hrs)
ECON501 Macroeconomic Theory and Policy (3 hrs)
ECON502 Microeconomic Theory and Policy (3 hrs)
ECON505 Collective Bargaining in Public and Private Sectors (3 hrs)
ECON551 State and Local Government Finance (3 hrs)
ECON562 Government and Business (3 hrs)

## Department of English Language and Literature

LITR523 Realism and Naturalism in American Literature (3 hrs)
LITR526 Studies in African American Literature to 1945 (3 hrs)
LITR568 Studies in 19th Century American Poetry (3 hrs)
LITR569 The American Renaissance: 1830-1860 (3 hrs)
LITR576 Studies in 20th Century American Fiction (3 hrs)
LITR577 Studies in 20th Century American Poetry (3 hrs)

## Department of Foreign Languages and Bilingual Studies

FLAN421 History and Theory of Bilingual Education (3 hrs)

## Department of Geography and Geology

GEOG423 Principles of City and Regional Planning (3 hrs)
GEOG431 Historical Geography of the United States (3 hrs)
GEOG433 Political Geography of the United States (3 hrs)
GHPR530 Introduction to Historic Preservation (2 hrs)
GEOG531 American Cultural Landscapes ( 2 hrs )
GEOG548 American Vernacular Architecture (2 hrs)
GEOG553 Urban and Regional Planning ( 2 hrs )
GEOG567 Introduction to Coastal Environment (2 hrs)
GEOG570 Rural Planning and Preservation (2 hrs)
GHPR694 Seminar in Neighborhood Preservation (2 hrs)

## Department of Interdisciplinary Technology

INDT500 Introduction to Interdisciplinary Technology (3 hrs)
INDT501 History of Technology (3 hrs)
INDT602 Contemporary Issues in Technology (2 hrs)
Department of Music and Dance
MUSC504 America's Music (2 hrs)
MUSC642 Foundations of Music Education (2 hrs)
Department of Political Science
PLSC456 Criminal Law I (3 hrs)
PLSC510 Modern Public Administration (3 hrs)
PLSC565 Studies in State and Local Government (2 hrs)
PLSC645 Intergovernmental Relations (2 hrs)
Department of Sociology, Anthropology and Criminology
SOCL/ANTH502 Racial and Cultural Minorities ( 3 hrs )
SOCL503 The Family as an Institution (3 hrs)
CRM610 Theories of Criminal Behavior (3 hrs)
CRM611 Sociology of Crime and Its Correction (3 hrs)

## Department of Teacher Education

SOFD572 History of American Education (2 hrs)
SOFD573 Black Experience and American Education (2 hrs)
Note:
*Graduate-level special topics courses that offer content in American culture may also be used in the M.L.S. program. Not more than six hours of special topics courses may be used in a degree program.

## GRADUATE/ADVANCED GRADUATE CERTIFICATE in State and Local History (SLH)/(SLHA)

These certificate programs offer concentrated exposure to the methods, techniques and materials of state and local history and provide solid grounding in historical research and analysis. Elective courses acquaint students with ethnic and minority groups; political, labor and urban issues; and the interrelationships among economic, social and political developments. Students electing a local history internship will apply their knowledge in a carefully supervised work setting.

By investigating events, individuals, groups and movements at the state and local levels, the programs familiarize students with major trends in U.S. history. Michigan's long and rich history, from the time of colonial rivalries to the present era of technological change, provides an eminently suitable focus for such a study.

The programs are aimed at individuals working in various public and private agencies or organizations. Teachers may expand their general knowledge base and develop new materials and insights for the classroom. Those doing historical research, writing and analysis may develop and refine their skills. Workers in historical societies or local museum settings may increase their awareness of the larger state and national contexts affecting local developments.

## Admission Requirements

Graduate Certificate Program
Applicants must:

1. Hold a bachelor's degree and meet the Graduate School's requirement of a 2.5 GPA for admission; and
2. Have completed 12 hours of undergraduate courses in history, at least six of those hours in U.S. history.

## Advanced Graduate Certificate Program

1. Hold a graduate degree and meet the Graduate School requirements for admission. Alternative admission is not allowed; and
2. Have completed 12 hours of course work in history at the undergraduate or graduate level, at least six of those hours in United States history.

## Certificate Requirements

Each program consists of at least 15 hours of course work from the following list. No more than one 400 -level course may be counted on a graduate certificate program. No $400-$ level courses may be applied to the advanced graduate certificate program.

```
Required Courses..
6 hours
HIST505 Historical Method (3 hrs)
HIST533 Studies and Techniques in Local History (3 hrs)
Elective Courses......................................................................... 9 hours
Nine hours from the following:
HIST463 United States Labor History (3 hrs)
HIST530 Urban Communities in U.S. History (3 hrs)
HIST531 Studies in Black History ( 3 hrs )
HIST532 Studies in Native American History (3 hrs)
HIST534 Social and Political History of Michigan (3 hrs)
HIST535 Studies in the History of the Family in the United States (3 hrs)
HIST684 Workshop in Michigan History (3 hrs)
HIST689 Local History Internship (3 hrs)
HIST597/598/599 Independent Study ( \(1 / 2 / 3 \mathrm{hrs}\) )
HIST697/698/699 Independent Study (1/2/3 hrs)
```

Program Total 15 hours

## Note:

Elective courses from the historic preservation program (GHPR prefix) may be applied to a certificate program in state and local history, with the approval of the history graduate adviser; for listing of these courses, see geography and geology entry in the current graduate catalog.

A minimum GPA of 3.0 is required to obtain either the graduate certificate or the advanced graduate certificate.

The graduate certificate or advanced graduate certificate program must be completed within three years from the date of initial enrollment.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

HIST411 England to 1689 (3 hrs)
HIST412 England 1689 to Present (3 hrs)
HIST414 The Automobile Industry and Modern America (3 hrs)
HIST424 The United States from 1917 to 1941 (3 hrs)

HIST425 The United States from 1941 to 1963 (3 hrs)
HIST426 The United States from 1963 to the Present (3 hrs)
HIST427 Europe from Absolutism to Revolution, 1648-1815 (3 hrs)
HIST435 Italy since 1815 (3 hrs)
HIST441 The Far East to 1800 (3 hrs)
HIST442 Modern China (3 hrs)
HIST443 Modern Japan (3 hrs)
HIST450 European Military History 1815-1945 (3 hrs)
HIST451 History of the First World War 1914-1918 (3 hrs)
HIST456 Europe since 1945 (3 hrs)
HIST457 History of Mexico (3 hrs)
HIST461 Foreign Relations of the United States (3 hrs)
HIST463 United States Labor History (3 hrs)
HIST464 The Old West, 1540-1890 (3 hrs)
HIST465 United States Constitutional History (3 hrs)
HIST468 The American Mind to the Civil War (3 hrs)
HIST469 The American Mind Since the Civil War (3 hrs)
HIST471 Social and Intellectual History of 19th Century Europe (3 hrs)
HIST479 Hitler's Germany (3 hrs)
HIST481 The Teaching of Social Studies (3 hrs)
HIST482 The Age of Washington and Jefferson (3 hrs)
HIST486 The United States as an Emerging World Power (3 hrs)
HIST487 Cooperative Education in History (3 hrs)
PHIL426 Topics in Gender Philosophy (3 hrs)
PHIL460 Philosophy of Language (3 hrs)
PHIL470 Contemporary European Philosophy (3 hrs)

# Department of Mathematics 

Campus Address: 515 Pray-Harrold<br>Internet: www.math.emich.edu<br>Telephone: 734.487.1444<br>E-mail: bette.warren@emich.edu

See page 220 for course descriptions.

## For advising and additional program information, contact:

Kenneth Shiskowski, Coordinator of Advising
515L Pray-Harrold
734.487.6814

E-mail: Kenneth.shiskowski@emich.edu
The department offers master of arts degrees in mathematics, mathematicscomputer science, mathematics-statistics, and mathematics education.

The Department of Mathematics awards several graduate assistantships each year; these provide a stipend, full tuition up to 18 hours, and registration and general fees. Graduate fellowships are also awarded to qualified students. For further information, contact the department head or coordinator of advising.

## MASTER OF ARTS in Mathematics (MTH)

Objectives

1. To develop competence in mathematics and related areas beyond the undergraduate level.
2. To improve the teaching of mathematics.
3. To prepare for study beyond the master's level in mathematics or mathematics education.
4. To strengthen the mathematical background of professionals needing analytical and quantitative skills.
5. To meet the needs of teachers continuing their education.
6. To provide opportunities for research in mathematics and mathematics education.

## Admission Requirements

Applicants must:

1. Meet the Graduate School's degree admission requirements; and
2. Possess a strong undergraduate major in mathematics (approximately 30 hours with a GPA of 2.75 in mathematics courses). Students without such a major may be admitted to the program after meeting requirements specified by the department.

## Degree Requirements

The master of arts degree in mathematics requires at least 30 graduate hours beyond the bachelor's degree, distributed with the approval of the department according to the course requirements below. Approval by the student's adviser of each semester's courses prior to registration is recommended. Final approval for the degree by the coordinator of advising is required. Students must select one of the following options:

Option I: Four hours of thesis research. Additional thesis hours may be taken, but will not replace the requirements listed below under required courses, restricted electives, electives and cognates. Before starting thesis research, students must submit to the department head a request to form a thesis committee to be made up of three faculty members in the department. The chair, who will direct the research, is usually selected by the student and requires the approval of the department head. The chair, in consultation with the student, will then recommend for de-partment-head approval, the other two committee members. At the conclusion of their research, students must submit to the department head the original thesis plus three copies written in a manner suitable for publication and approved by the thesis committee.

Option II: At least two hours in research study. Students who elect this option will, with the approval of the coordinator of advising, select a supervisor to direct the research study. A presentation, based on the research study, will be made to at least three departmental faculty members. A copy of the study, written in good and acceptable form, must be filed with the department.

## Course Requirements

The M.A. in mathematics requires the completion of 30 hours of course work to be distributed among required courses, restricted elective courses, research courses, elective courses in mathematics and cognate courses as follows:

Required courses . $0-9$ hours
*MATH411 Abstract Algebra (3 hrs) or equivalent
*MATH416 Linear Algebra (3 hrs) or equivalent
*MATH420 Introduction to Analysis (3 hrs) or equivalent

## Restricted Elective Courses. <br> .5-6 hours

One course from two of the following three groups:

## Algebra

MATH511 Linear Algebra (3 hrs)
MATH518 Theory of Groups (3 hrs)
MATH618 Theory of Fields (3 hrs)
Analysis
MATH524 Complex Analysis (3 hrs)
MATH526 Real Analysis (3 hrs)
Probability and Statistics
MATH571 Mathematical Statistics I: Probability Theory (3 hrs)
MATH573 Statistical Data Analysis (2 hrs)
MATH671 Mathematical Statistics II: Statistical Inference (3 hrs)

Research Courses ................................................................... 2-4 hours MATH691/692 Research Study ( $2 / 3 \mathrm{hrs}$ ) for either two or three hours in research study or four hours of thesis research

Elective Courses in Mathematics $\qquad$ 14-22 hours
Usually no more than six hours in mathematics education courses. Thesis or research study hours in mathematics education do not count as part of this six-hour limitation.

## Cognate Courses.

$\qquad$ .0-6 hours May be taken, in consultation with the graduate adviser, outside the Department of Mathematics, but in an area related to mathematics. The number of such hours permitted in the program will be based on the student's background and needs. Current or prospective teachers of mathematics may take, instead of cognates, up to six additional hours in mathematics education beyond those permitted as electives above.

Program Total 30 hours

Note:
*A total of nine hours of approved 400-level courses taken for graduate credit may be used on a graduate degree program. Students with undergraduate credit in any or all of these courses will substitute approved mathematics electives for these hours.

## MASTER OF ARTS in Mathematics Education (MTED)

## Objectives

The program is designed to:

1. Enhance the repertoire of instructional strategies and skills including technological advances of secondary teachers;
2. Prepare teachers for leadership in mathematics education;
3. Promote awareness of current issues and research in mathematics education;
4. Broaden their mathematical content knowledge; and
5. Promote diversity by introducing mathematics teachers to the mathematics of other cultures.

## Admission Requirements

The requirements for admission to the master of arts in mathematics education are:

1. Meet all Graduate School's degree admission requirements;
2. Complete the equivalent of at least a minor in mathematics (approximately 20 credit hours) although a major in mathematics is preferred. More specifically, the student must have taken the equivalent of the entire calculus sequence (MATH120 Calculus I, MATH121 Calculus II, MATH223 Multivariable Calculus) and a beginning course in linear algebra (MATH122 Linear Algebra). A grade point average of 2.75 is required in the student's previous mathematics and mathematics education course work. Students without such a background may be admitted to the program conditionally; and
3. Obtain a secondary teaching certificate.

## Degree Requirements

This program requires a minimum of 34 graduate hours beyond the bachelor's degree, to be distributed with the approval of the department according to the course requirements below. The program includes a minimum of 15 hours in mathematics and a maximum of 13 hours in mathematics education course work, as well as a two-hour research study in mathematics education. Four hours will be taken from the College of Education in research techniques and curriculum foundations. Approval by the student's adviser of each semester's courses is suggested prior to registration but not required. Final recommendation for the degree by the coordinator of advising is required.

1. Mathematics Content ( 15 hrs )
2. Mathematics Pedagogical Knowledge ( 13 hrs )
3. Mathematics Education Research (2 hrs)
4. Educational Foundations (4 hrs)

## Course Requirements

The M.A. in mathematics education requires the completion of 34 hours of course work to be distributed among required courses, restricted elective courses, research courses, elective courses in mathematics and cognate courses as follows:

```
Required Courses............................................................... }22\mathrm{ hours
    1. Mathematics Content 9 hours
        *MATH411 Abstract Algebra (3 hrs) or equivalent
        *MATH416 Linear Algebra (3 hrs) or equivalent
        *MATH420 Introduction to Analysis (3 hrs) or equivalent
    2. Mathematics Pedagogical Knowledge 7 hours
        MATH580 Mathematical Connections (2 hrs)
        MATH583 Problem Solving (2 hrs)
        One of the following courses:
            MATH584 Middle School Mathematics, Methods and
                        Content (3 hrs)
            MATH588 High School Mathematics,Methods and
                Content (3 hrs)
    3. Research in Mathematics Education 2 hours
        MATH691 Research Study (2 hrs)
        Note:
        At least two hours of thesis or research study in mathematics edu-
        cation is required. Students will, with the approval of the coordinator
        of advising, select a supervisor to direct the thesis/research study. A
        presentation is required at the conclusion of the thesis/research study.
    4. Educational Foundation Courses
    4 hours
    Students must take the following courses from the College of Education:
        ECE655 Curriculum Foundations (2 hrs)
        EDPS677 Research Techniques (2 hrs)
    Restricted Elective Courses........................................................... }6\mathrm{ hours
    Mathematics Content
    One course from each of two of the following three groups:
        Algebra
            MATH511 Linear Algebra (3 hrs)
            MATH518 Theory of Groups (3 hrs)
            MATH618 Theory of Fields (3 hrs)
        Analysis
            MATH524 Complex Analysis (3 hrs)
            MATH526 Real Analysis (3 hrs)
        Probability and Statistics
                MATH572 Design and Analysis of Experiments (3 hrs)
                MATH574 Applied Statistics (3 hrs)
                MATH575 Linear Regression Analysis (3 hrs)
                MATH576 Applied Survey Sampling (3 hrs)
```

    Elective Courses................................................................................ 6 hours
        1. Mathematics Content
        *MATH400 The History and Development of Mathematics (3 hrs)
        MATH506 Introduction to Mathematical Logic (2 hrs)
        MATH507 Theory of Numbers (3 hrs)
        MATH508 Foundations of Mathematics (2 hrs)
        MATH542 Non-Euclidean Geometry ( 2 hrs )
        MATH546 Graph Theory (2 hrs)
        MATH550 General Topology (3 hrs)
        MATH573 Data Analysis (2 hrs)
        Other 500- or 600-level mathematics content courses with the
            approval of adviser
    2. Mathematics Pedagogical Knowledge
        MATH582 Microcomputer for Educators (2 hrs)
        MATH587 Enriching Instruction in High School
        Mathematics (2 hrs)
    MATH589 Geometry for Secondary Teachers (2 hrs)
MATH584 Middle School Mathematics, Methods and Content (3 hrs)
MATH588 High School Mathematics, Methods and Content (3 hrs)
Other 500- or 600-level mathematics content courses with the approval of advisor

Program Total 34 hours

## Note:

*A total of nine hours of approved 400 -level courses taken for graduate credit may be used on a graduate degree program. Students with undergraduate credit in any or all of these courses will substitute approved mathematics electives for these hours.

## MASTER OF ARTS in Mathematics Computer Science (MTCS)

## Objectives

1. To develop competence in mathematics and computer science beyond the undergraduate level.
2. To improve the teaching of mathematics and computer science.
3. To prepare for study beyond the master's level in mathematics and/or computer science.
4. To strengthen the mathematical background of professionals needing analytical and quantitative skills related to mathematics and computer science.
5. To provide opportunities for research in mathematics and/or computer science.

## Admission Requirements

Applicants must:

1. Meet all Graduate School degree admission requirements; and
2. Possess the equivalent of at least a minor in both mathematics and computer science (approximately 20 hours in each subject), although a major in one or the other subject is preferred. A GPA of at least 2.75 is required in both mathematics and computer science course work. Students without such a background may be admitted to the program after meeting requirements specified by the two departments.

## Degree Requirements

This program is for students with an interest in computer science or applied mathematics. It requires a minimum of 34 graduate hours beyond the bachelor's degree, distributed with the approval of both departments according to the course requirements below. The program includes at least 17 graduate hours in mathematics, including 11 at the 500- or 600-level, and at least 15 graduate hours in computer science, including 12 at the 500- or $600-\mathrm{level}$. In general, only six hours of 400 -level course work in mathematics and only three hours of 400 -level course work in computer science may be counted toward this degree.* Approval by the student's adviser of each semester's courses prior to registration is recommended. Final approval for the degree by the coordinator of advising is required.

## Course Requirements

The M.A. in mathematics-computer science requires the completion of 34 hours of course work to be distributed among required courses, restricted elective courses, elective courses in mathematics, computer science courses and general courses as follows:

[^9]Algebra
MATH511 Linear Algebra (3 hrs)
MATH518 Theory of Groups (3 hrs)
MATH618 Theory of Fields (3 hrs)
Analysis
MATH524 Complex Analysis (3 hrs)
MATH526 Real Analysis (3 hrs)
Probability and statistics
MATH571 Mathematical Statistics I: Probability Theory ( 3 hrs )
MATH573 Statistical Data Analysis (2 hrs)
MATH671 Mathematical Statistics II: Statistical Inference (3 hrs)

Elective Courses in Mathematics 2-12 hours
At least six of these hours must be at the 500- or 600-level.
Computer Science Courses ....................................................... 15 hours
Required Courses
One course from the following:
COSC513 Formal Methods in Software Development (3 hrs) COSC541 Automata, Computability, Formal Languages (3 hrs)
Restricted Electives 3 hours
One course from the following: COSC645 Advanced Compiler Construction (3 hrs) COSC661 Automated Reasoning (3 hrs) COSC623 Advanced Operating Systems (3 hrs) COSC625 Real Time Processing (3 hrs) COSC683 Software Engineering Practicum (3 hrs)
Electives in Computer Science 9 hours At least six of these hours must be at the 500- or 600-level. COSC514 Fundamentals of Computer Science I and COSC515 Fundamentals of Computer Science II do not count toward this master's degree program.

General Courses .....................................................................-3 hours
Required Courses
One course from the following:
MATH691/692 Research Study (2/3 hrs)
COSC691/692 Thesis (2/3 hrs)
Two hours of research study in either mathematics or computer science are required. Students will, with the approval of the coordinators of advising, select a supervisor to direct the research study. A presentation, based on the research study, will be made to at least three departmental faculty members. A typed copy of the study, written in good and acceptable form, will be filed with the Department of Mathematics. Students interested in a thesis option should see the coordinators of advising, and the thesis requirement of the M.A. in mathematics.

Program Total 34 hours

Note:
*A total of nine hours of approved 400 -level courses taken for graduate credit may be used on a graduate degree program.
-Students with undergraduate credit in any or all of these courses will substitute approved mathematics electives for these hours.

## MASTER OF ARTS in Mathematics - Statistics (MTAS)

## Objectives

1. To develop competence in mathematics and statistics beyond the undergraduate level.
2. To improve the teaching of both mathematics and statistics.
3. To prepare for study beyond the master's level in mathematics and/or statistics.
4. To strengthen the mathematical background of professionals needing analytical and quantitative skills related to mathematics and statistics.
5. To provide opportunities for research in mathematics and/or statistics.

## Admission Requirements

Applicants must:

1. Meet all Graduate School degree admission requirements; and
2. Possess the equivalent of at least a minor in both mathematics and statistics (approximately 20 hours in each subject), although a major in one of the subjects is preferred. A GPA of at least 2.75 is required in both mathematics and statistics course work. Students without such a background may be admitted to the program after meeting requirements specified by the department.

## Degree Requirements

This program requires a minimum of 34 graduate hours beyond the bachelor's degree, distributed with the approval of the department according to the course requirements below. Approval by the student's adviser of each semester's courses prior to registration is recommended. Final approval for the degree by the coordinator of advising is required.

## Course Requirements

The M.A. in mathematics-statistics requires the completion of 35 hours of course work to be distributed among required courses, restricted elective courses, elective courses in mathematics, statistics courses and general courses as follows:

```
Mathematics
```

$\qquad$

``` 15 hours
    Required Courses 0-9 hours
        *MATH411 Abstract Algebra (3 hrs) or equivalent
        *MATH416 Linear Algebra (3 hrs) or equivalent
        *MATH420 Introduction to Analysis (3 hrs) or equivalent
    Restricted Elective Courses 5-6 hours
        Select one course from two of the following four groups:
        Algebra
                MATH511 Linear Algebra (3 hrs)
                MATH518 Theory of Groups (3 hrs)
        Analysis
            MATH522 Fourier Analysis (3 hrs)
                MATH524 Complex Analysis (3 hrs)
                MATH526 Real Analysis (3 hrs)
        Applied
                MATH419 Advanced Mathematical Modeling (3 hrs)
                MATH536 Numerical Analysis (3 hrs)
                MATH560 Introduction to Optimization Theory (3 hrs)
        Bioinformatics
                MATH570 Statistical Concepts and Methods for
                    Bioinformatics (3 hrs)
```

Elective Courses in Mathematics
.2-12 hours
Fifteen hours from mathematics other than statistics selected in consul-
tation with the graduate adviser:
Statistics Courses..
$\qquad$ 17 hours
Required Courses 11 hours
MATH571 Mathematical Statistics I: Probability Theory (3 hrs)
MATH572 Design and Analysis of Experiments (3 hrs)
MATH573 Statistical Data Analysis (2 hrs)
MATH671 Mathematical Statistics II: Statistical Inference (3 hrs)
Restricted Electives
6 hours
Two courses from the following:
MATH574 Applied Statistics (3 hrs)
MATH575 Linear Regression Analysis (3 hrs)
MATH576 Applied Survey Sampling (3 hrs)
MATH577 Applied Multivariate Statistics (3 hrs)
MATH578 Nonparametric Statistics (3 hrs)

General Courses .2-3 hours
Required Courses: 2-3 hours MATH691/692 Research Study (2/3 hrs) At least two hours of thesis in either mathematics or statistics are required. With the approval of the coordinator of advising, students select a supervisor to direct the thesis. A presentation is required at the conclusion of the thesis.

Program Total 35 hours

Note:
*Students with undergraduate credit in any or all of these courses will substitute approved mathematics electives for these hours.

## PROFESSIONAL MASTER OF SCIENCE in Bioinformatics (BINF)

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE in Bioinformatics (BINF)

See page 35 for Interdisciplinary studies listings.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

MATH400 History and Development of Mathematics (3 hrs)
MATH 403 Current Research in Elementary School Mathematics (3 hrs)
MATH406 Introduction to Computability ( 3 hrs )
MATH411 Abstract Algebra (3 hrs)
MATH416 Linear Algebra (3 hrs)
MATH418 Modelling with Linear Algebra (3 hrs)
MATH419 Advanced Mathematical Modeling (3 hrs)
MATH420 Introduction to Analysis (3 hrs)
MATH424 Introduction to Complex Variables (3 hrs)
MATH425 Mathematics for Scientists (3 hrs)
MATH 426 Differential Equations II (3 hrs)
MATH436 Introduction to Numerical Analysis (3 hrs)
MATH448 Differential Geometry with An Introduction to General Relativity (3 hrs)
MATH460 Applied Survey Sampling (3 hrs)
MATH461 Linear Regression Analysis (3 hrs)
MATH462 Design and Analysis of Experiments (3 hrs)
MATH471 Probability and Statistics II (3 hrs)
MATH472 Problems in Actuarial Studies II (2 hrs)
MATH474 Applied Statistics (3 hrs)

# Department of Music and Dance 

Campus Address: N101 Alexander<br>Internet: http://music.emich.edu<br>Telephone: 734.487.4380<br>E-mail: dave.woike@emich.edu

See pages 190 and 226 for course descriptions.

The Eastern Michigan University Department of Music and Dance strives to promote lifelong musical learning, to prepare students for professional careers in music, and to advance the cultural life of the campus, community and beyond.

## Departmental Values

Teaching and learning
Performing
Scholarship
Outreach
Service

## Guiding Principles

Musicianship
Excellence
Accessibility
Relevance
Partnership
Concentrations are available in music education, music theory-literature, piano pedagogy and music performance. Specializations in music performance include: accompaniment, choral music, organ, piano and voice; and wind, stringed and percussion instruments. Programs are tailored to varying student needs, with the objective of improving performance and musicianship, as well as teaching, analytical and research skills. All music curricula are accredited by the National Association of Schools of Music.

## Admission Requirements

## Degree Admission

Admission to a graduate program in the Department of Music and Dance is granted to students who meet the requirements of both the Graduate School and the Department of Music and Dance. Application for admission should be made to the Graduate Admissions, where undergraduate transcripts are evaluated. Transcripts should be forwarded to the office of Graduate Admissions at the time of application. In addition to Graduate School requirements for degree admission, the department requires the applicant to have an undergraduate degree in music, or its equivalent. Students wishing to major in performance should send a tape to the Department of Music and Dance or write for information on auditions. Upon general admission to the department, additional auditions are necessary for applied music study or acceptance in a performance concentration.

## Conditional Admission

Students who meet Graduate School requirements for admission but who do not meet all departmental requirements may be granted conditional admission.

Applicants must:

1. Complete graduate placement examinations and auditions;
2. Complete all deficiency courses and requirements;
3. Complete MUSC601 Introduction to Graduate Studies; and
4. Complete at least six hours of graduate study in music at Eastern Michigan University with a cumulative grade point average of 3.0 (B) or better.

## Program Requirements

All candidates for the M.A. in music are required to complete the following:

1. Music theory-literature placement examination;
2. Audition, for acceptance into any performance concentration, and for applied music study (all concentrations require applied music study);
3. Comprehensive examination prior to graduation; and
4. At least 15 hours of course work at the $600-$ level.

Upon admission to the Department of Music and Dance, each student is assigned an adviser who assists in planning a curriculum based on student needs and future plans. Placement examinations in theory, literature, history and performance are given each semester and students are expected to complete these tests before decisions on course selections are made. Students should write or call the Department of Music and Dance for the next scheduled test date. The results of the placement tests are used by advisers in determining the course needs of students. Students with deficiencies may be required to take remedial courses without graduate credit. Auditions are arranged with the adviser and area chair.

Programs consist of 12 hours of foundation courses including research techniques, music theory and literature, and applied music; 14 hours of concentration in the student's field of interest; and four hours of elective courses. A final recital, thesis or special project is required in each degree program.

In addition to regular tuition, students accepted for private music lessons will be assessed applied music fees described under the section on tuition and fees.

## MASTER OF ARTS in Music (MUSC)

## Course Requirements

The M.A. in music requires the completion of 30 hours of course work to be distributed among required courses, elective courses and concentration courses as follows:

Required Courses..................................................................... 12 hours
MUSC601 Introduction to Graduate Studies (2 hrs)
One course from the following: (based on music theory-literature placement examination results)

MUSC511 Survey of Harmonic Techniques (2 hrs)
MUSC513 Form and Analysis (2 hrs)
a theory-literature elective
Music Literature Course (2 hrs)
Applied Music (2 hrs)
Music Electives from Outside the Area of Concentration (4 hrs) (Applied Music and Ensembles recommended for music education concentration; Applied Music, Ensembles and Composition recommended for music theory-literature concentration.)

Elective Courses.
.4 hours
Applied music elected by students in music performance concentrations may not be on the principal instrument. Music or non-music courses selected in consultation with the graduate adviser.

Concentration Courses ............................................................. 14 hours
Select all courses listed in one of the following concentrations:
I. Music Theory-Literature (MUTL)

MUSC635 Music of the 20th Century (2 hrs)
MUSC660 Studies in Pedagogy (theory-literature) (2 hrs)
MUSC691 Thesis or MUSC692 Final Project (2 hrs)
Two courses from the following:
MUSC504 America's Music (2 hrs)
MUSC505 World Music (2 hrs)
MUSC631 Renaissance Music (2 hrs)
MUSC632 Baroque Music (2 hrs)
MUSC633 Music in the Classic Era (2 hrs)
MUSC634 Music in the Romantic Era (2 hrs)

Four hours from the following:
MUSC513 Form and Analysis (2 hrs)
MUSC613 Advanced Form and Analysis (2 hrs)
MUSC638 The New Music (2 hrs)
MUSC697/698 Independent Study (theory-literature topics) (1/2 hrs)
Other appropriate music courses, with adviser approval
II. Piano Pedagogy (MUPP)

Applied Music (piano) at 651-level and above (4 hrs)
MUSC692 Final Project (lecture-recital or paper on piano
pedagogy, and fluent reading of 30 minutes of music of higher-intermediate difficulty) (2 hrs)
Two courses from the following:
MUSC660 Studies in Pedagogy (studio piano) (2 hrs)
MUSC660 Studies in Pedagogy (adult group piano) (2 hrs)
MUSC660 Studies in Pedagogy (children: private/ group) (2 hrs)
Four hours from the following:
MUSC561 Studies in Literature (keyboard topics) (2 hrs)
MUSC595 Workshop in Music (keyboard topics) (2 hrs)
MUSC660 Studies in Pedagogy (topic not chosen in preceding option) (2 hrs)
Other appropriate music courses, with adviser approval
III. Music Performance (Accompaniment) (MPRF)

Applied Music (piano) at 651-level and above (4 hrs)
MUSC551 Vocal and Instrumental Accompanying (piano) (4 hrs)
MUSC687 Graduate Recital (2 hrs)
Four hours from the following:
MUSC561 Studies in Literature (piano) (2 hrs)
MUSC590/591 Special Topics (chamber music) ( $1 / 2 \mathrm{hrs}$ )
MUSC660 Studies in Pedagogy (studio piano) (2 hrs)
MUSC660 Studies in Pedagogy (adult group piano) (2 hrs)
MUSC660 Studies in Pedagogy (children: private/ group) (2 hrs)
Ensemble (any, large or small, approved by adviser)
Other appropriate music courses, selected in consultation with the graduate adviser
IV. Music Performance (Choral) (MCH)

Applied Music (voice), with at least one semester at the 651-
level, or above, by the end of four hours of study (4 hrs)
MUSC660 Studies in Pedagogy (choral) (2 hrs)
MUSC687 Graduate Recital (2 hrs)
One course from the following:
MUSC561 Studies in Literature (choral music) (2 hrs)
MUSC561 Studies in Literature (opera) (2 hrs)
Four hours from the following:
MUSC561 Studies in Literature (solo song) (2 hrs)
MUSC576 Score Study and Rehearsal Strategies for Music Educators (2 hrs)
MUSC660 Studies in Pedagogy (vocal) (2 hrs)
MUSC678 Advanced Methods and Conducting Techniques for Music Educators (2 hrs)
Ensemble (up to two hours; any, large or small, approved by adviser)
Other appropriate music courses, with adviser approval
V. Music Performance (Organ) (MPRF)

Applied Music (organ) at 651 -level and above ( 6 hrs )
MUSC561 Studies in Literature (organ) (2 hrs)
MUSC687 Graduate Recital (2 hrs)
Four hours from the following:
MUSC551 Vocal and Instrumental Accompanying (2 hrs)
MUSC561 Studies in Literature (choral literature, church liturgy, second semester of organ literature) (2 hrs)
MUSC660 Studies in Pedagogy (organ) (2 hrs)
Ensemble (any, large or small, approved by adviser)
Other appropriate music courses, with adviser approval
VI. Music Performance (Piano) (MPRF)

Applied Music (piano), at 661-level and above ( 6 hrs )
MUSC561 Studies in Literature (piano) (2 hrs)
MUSC687 Graduate Recital (2 hrs)

Four hours from the following:
MUSC551 Vocal and Instrumental Accompanying (2 hrs)
MUSC590/591 Special Topics (chamber music) ( $1 / 2 \mathrm{hrs}$ )
MUSC660 Studies in Pedagogy (studio piano) (2 hrs)
MUSC660 Studies in Pedagogy (adult group piano) (2 hrs)
MUSC660 Studies in Pedagogy (children: private/ group) (2 hrs)
MUSC660 Studies in Pedagogy (Taubman piano techniques) (2 hrs)
Ensemble (any, large or small, approved by adviser)
Other appropriate music courses, with adviser approval
VII. Music Performance (Voice) (MPRF)

Applied Music (voice), at level 661 and above (6 hrs)
MUSC687 Graduate Recital (2 hrs)
Ensemble (any large or small vocal ensemble approved by adviser) (2 hrs)
Four hours from the following:
MUSC561 Studies in Literature (solo song) (2 hrs)
MUSC561 Studies in Literature (opera) (2 hrs)
MUSC660 Studies in Pedagogy (vocal diction) (2 hrs)
VIII. Music Performance (Wind, String and Percussion

Instruments) (MPRF)
Applied Music (major instrument), at 651-level and above (6 hrs)
MUSC687 Graduate Recital (2 hrs)
Ensemble (2 hrs)
(any large or small approved by adviser)
Four hours from the following:
Applied Music Courses 551, 651, 652
MUSC576 Score Study and Rehearsal Strategies for Music Educators (2 hrs)
MUSC595 Workshop in Music (band, orchestra, instrument repair) (2 hrs)
MUSC660 Studies in Pedagogy (brass, percussion, strings, woodwind) (2 hrs)
MUSC678 Advanced Methods and Conducting Techniques for Music Educators (2 hrs)
Ensemble (any, large or small, approved by adviser)
Other appropriate music courses, with adviser approval

## MASTER OF ARTS in Music Education (MUED)

Eastern Michigan University's advanced professional education programs develop leaders who demonstrate reflective thought and scholarship within the context of a culturally diverse society. In addition, the master's-level program in music education produces professionals with the comprehensive knowledge, skills and attitudes to develop and lead music programs in a multicultural environment.

## Course Requirements

The M.A. in music education requires the completion of 30 hours of course work to be distributed among required courses, elective courses, and music education courses as follows:

Required Courses..................................................................... 12 hours
MUSC601 Introduction to Graduate Studies (2 hrs)
One course from the following: (based on music theory-literature placement examination results)

MUSC511 Survey of Harmonic Techniques (2 hrs)
MUSC513 Form and Analysis (2 hrs)
Theory-Literature Elective (2 hrs)
Music Literature Course (2 hrs)
(at 600-level for music education concentration)
Applied Music (2 hrs)
Music electives from outside the area of concentration (4 hrs)
(Applied Music and Ensembles recommended for music education concentration; Applied Music, Ensembles and Composition recommended for music theory-literature concentration.)
Elective Courses....................................................................... 4 hours
Music or non-music courses selected in consultation with the graduate adviser.
Music Education........................................................................... 14 hours
MUSC642 Foundations of Music Education (2 hrs)
MUSC694 Seminar (music education topic) (2 hrs)
One course from the following:
MUSC576 Score Study and Rehearsal Strategies for Music
Educators (2 hrs)
MUSC678 Advanced Methods and Conducting Techniques for
Music Educators (2 hrs)
One course from the following:
MUSC691 Thesis (strongly recommended for students who wish
to pursue the doctorate in music education) (2 hrs)
MUSC692 Final Project (2 hrs)
Six hours from the following:
MUSC561 Studies in Literature (band, choral, orchestra) (2 hrs)
MUSC576 Score Study and Rehearsal Strategies for Music
Educators (2 hrs)
MUSC591 Special Topics (music education only, K-12) (2 hrs)
MUSC595 Workshop in Music (music education only,
K-12) (2 hrs)
MUSC660 Studies in Pedagogy (music education topics) (2 hrs)
MUSC678 Advanced Methods and Conducting Techniques for
Music Educators (2 hrs)
MUSC697/698 Independent Study (music education) (1/2 hrs)
Other music education courses, with adviser approval

Program Total 30 hours

# Department of Physics and Astronomy 

Campus Address: 303 Strong Hall<br>Internet: www.physics.emich.edu/index.htm<br>Telephone: 734.487.4144<br>E-mail: aoakes@emich.edu

See pages 172 and 230 for course descriptions.

The Department of Physics and Astronomy offers three programs leading to the master of science degree: (1) the physics program for those intending to pursue doctoral studies; (2) the physics education program for high school physics teachers wishing to improve their physics background or prepare for further graduate study; and (3) the interdisciplinary general science program for junior high school teachers seeking to strengthen their science background.

Each program requires at least 30 hours of graduate-level course work. No more than nine hours of 400 -level undergraduate courses may be used. Up to six hours of course work in cognate areas may be included. Students must arrange a program of study with their assigned adviser.

The department's honor society, Sigma Pi Sigma, is the official honor society of the physics profession. Through election to Sigma Pi Sigma, distinctive achievement and high scholarship in physics is recognized and celebrated. Sigma Pi Sigma exists to honor outstanding scholarship in physics; to encourage interest in physics among students at all levels, to promote an attitude of service in its members towards their fellow students, colleagues and the public; and to provide a fellowship of persons who have excelled in physics. The faculty adviser and a committee of active Sigma Pi Sigma members nominate prospective members.

# MASTER OF SCIENCE in Physics (PHY) 

## Admission Requirements

Applicants should have the equivalent of an undergraduate major in physics with a strong background in mathematics including multivariable calculus and differential equations. Students who do not meet these requirements may be granted conditional admission requiring additional undergraduate course work in physics and/or mathematics.

## Program Requirements

The M.S. in physics prepares students in traditional physics research. Its graduates are well-prepared for doctoral study or for junior college or community college teaching.

Graduation requirements include 30 hours of approved graduate credit, satisfactory performance on a comprehensive written/oral examination, and the completion of a research problem culminating in a written thesis or report.

## Course Requirements

The M.S. in physics requires the completion of 30 hours of course work to be distributed among required courses, elective courses and cognate courses as follows:
Required Courses................................................................ 12-14 hours
PHY662 Advanced Mechanics I ( 3 hrs )
PHY671 Electromagnetic Theory (4 hrs)
*PHY675 Quantum Mechanics ( 4 hrs)
PHY690/691/692 Thesis/Final Project (1/2/3 hrs)

Elective courses in physics $\qquad$ 13-17 hours
Thirteen to 17 hours selected in consultation with the graduate adviser.
Cognate Courses.
.0-6 hours Zero to six hours selected in consultation with the graduate.................................

Program Total 30 hours

Note:
*PHY675 requirement may be waived in exceptional cases upon department approval

## MASTER OF SCIENCE in Physics Education (PHYE)

## Admission Requirements

Applicants must have at least the equivalent of an undergraduate minor in physics with a background in mathematics through multivariable calculus. Students who do not meet these requirements may be granted conditional admission requiring additional undergraduate course work in physics and/or mathematics. Admission is restricted to in-service teachers and those intending to enter the teaching profession.

## Program Requirements

Graduation requirements include completion of 30 hours of approved graduate credit, satisfactory performance on a comprehensive oral examination and the completion of an essay in physics, the history of physics or the teaching of physics.

## Course Requirements

The M.S. in physics education requires the completion of 30 hours of course work to be distributed among required courses, elective courses and cognate courses as follows:

[^10]20-26 hours
Twenty to 26 hours selected in consultation with the graduate adviser.
Cognate Courses. $\qquad$ 0-6 hours
Zero to six hours selected in consultation with the graduate adviser.
Program Total $\qquad$ 30 hours

Note:
*PHY650/651 requirement may be waived in exceptional cases upon department approval.

# MASTER OF SCIENCE in General Science (GSC) 


#### Abstract

Admission Requirements Applicants must have at least 30 hours of course work in four of the five science areas of astronomy, biology, chemistry, earth science and physics. At least a minor in one of these areas or in mathematics is required. Mathematics preparation through college algebra and trigonometry is mandatory. Students who do not meet these requirements may be granted conditional admission requiring the completion of additional undergraduate course work in science and/or mathematics. Admission is restricted to those who are either teaching or planning to teach.

\section*{Degree Requirements}

This interdisciplinary program, covering the five science areas listed above, is designed for junior high school teachers who wish to upgrade their science content and methodology as they prepare for leadership roles in science education.

Graduation requirements include 30 hours of approved course work, with at least four but not more than six credit hours related to the methods of teaching science at the secondary level.


## Course Requirements

The M.S. in general science requires 30 hours of course work to be distributed among required courses, elective courses and cognate courses as follows:
Required Courses

$\qquad$
4 hours

PHY622 New Approaches to the Teaching of Science in the Junior
High School I (2 hrs)

PHY623 New Approaches to the Teaching of Science in the Junior
High School II (2 hrs)

Elective Courses.
20-26 hours
Twenty to 26 hours selected in consultation with the graduate adviser from the five science areas listed above or from mathematics.

Cognate Courses................................................................... 0-6 hours
Zero to six hours selected in consultation with the graduate adviser.
Program Total
30 hours

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

PHY406 Ethical Issues in Physics (1 hr)
PHY420 Capstone Project (3 hrs)
PHY431 Intermediate Mechanics II (3 hrs)
PHY436 Vibration and Sound (4 hrs)
PHY440 Optics (3 hrs)
PHY442 Optics Laboratory ( 1 hr )
PHY444 Applied Optics (2 hrs)
PHY450 Electricity and Magnetism II (3 hrs)
PHY452 Electrical Measurements (4 hrs)
PHY456 Electronics for Scientists (4 hrs)
PHY458 Electronic Devices for Scientists (4 hrs)
PHY462 Kinetic Theory and Statistical Mechanics (3 hrs)
PHY471 Atomic and Nuclear Physics (3 hrs)
PHY475 Introduction to Quantum Mechanics (3 hrs)
PHY481 Mathematical Physics (3 hrs)
PHY485 Fluid Dynamics (3 hrs)
PHY495 Readings in Physics (Honors Course) (1 hr)

# Department of Political Science 

Campus Address: 601 Pray-Harrold<br>Internet: www.emich.edu/public/polisci/index.html<br>Telephone: 734.487.3113<br>E-mail: raymond.rosenfeld@emich.edu

Fax: 734.487.3340
See page 231 for course descriptions.

Courses offered by the Department of Political Science serve the specific purposes of the master of public administration, a variety of graduate certificate programs and the interdisciplinary master of arts in social science with a concentration in political science. (For details on this program see listings under the Department of History and Philosophy in this catalog.) Political science courses also meet cognate requirements in various other programs.

## MASTER OF PUBLIC <br> ADMINISTRATION (M.P.A.) Programs (PADM)

Raymond Rosenfeld<br>M.P.A. Director<br>734.487.0058<br>Joseph Ohren<br>M.P.A. Adviser<br>734.487.2522<br>Don Koyluoglu<br>Program Coordinator<br>734.487.0063

## Objectives

The M.P.A. program prepares students for public service careers by offering a professional degree grounded in political science, combining a general foundation in public administration with a specialized program, addressing the needs of professionals in local, state and national government, and nonprofit administration, and providing leadership training to meet changing public service needs. The program is accredited by the National Association of Schools of Public Affairs and Administration.

## Department Activities

The department offers special opportunities to M.P.A. students by its involvement and leadership roles in EMU's Institute for Community and Regional Development (ICARD), the Detroit Metro Chapter of the American Society for Public Administration and the Michigan Local Government Management Association.

## Graduate Assistantships

Several graduate assistantships are available on a competitive basis to M.P.A. students. Application is made through the Department of Political Science or the Graduate School. Graduate assistants support faculty members in instructional, research, service and administrative projects. Placements are also available outside the department with other University offices, including ICARD.

## Admission Requirements

## Degree Admissions

Applicants must:

1. Have an undergraduate GPA of 2.75 , or 3.0 in the last half of the undergraduate program;
2. Submit a 250 -word description of their academic and professional history and their professional goals in public administration;
3. Have a personal interview with the program director, which is strongly recommended as a part of the admission process;
4. Have one political science course in the fundamentals of American government, public law, state and local government or public administration;
5. Have earned a C or better if the preparatory course was part of a bachelor's degree; a B- or better if taken after the bachelor's degree;
6. Graduate Record Examinations (GRE) is not required; and
7. Applicants whose native language is not English must achieve minimum scores on the Test of English as a Foreign Language (TOEFL), or 83 on the Michigan English Language Assessment Battery (MELAB) and minimum scores on the TWE. Students with scores below the minimum must take English as a Second Language (ESL) courses at EMU to raise their English proficiency to a satisfactory level before beginning courses in the M.P.A. program. These students may be admitted on a conditional basis, subject to successful completion of the ESL requirements. See Admissions Web site for minimum scores.

## Conditional Admission

If applicants are deficient in the above prerequisites, they may be granted admission on a conditional basis, with degree admission subject to completion of the missing prerequisite(s).

In lieu of the above prerequisite course, documentation of acquired proficiency and/or appropriate experience may be accepted at the discretion of the M.P.A. director.

## Non-Degree Admission

Promising applicants who do not meet the GPA requirements for regular degree admission may be granted non-degree admission. Such applicants must arrange for an admissions interview with the program director and submit two letters of recommendation from employers or others who can testify to the applicant's suitability for the program. Applicants may be granted degree admission after completing at least 10 graduate hours approved by the program director, with a minimum grade of $3.0(\mathrm{~B})$ in each course.

## Degree Requirements

The master of public administration degree is awarded upon satisfactory completion of 17 courses with at least 40 hours of appropriate credit. This includes 13 required or program courses and four electives. All pre-service students without substantial work experience in public administration must complete a 15 -week equivalent internship experience and enroll in PLSC688 Practicum in Public Affairs. The director of interns in the Department of Political Science will work with the student to identify and supervise an appropriate internship.

The minimum acceptable grade in each required course is B. Students scoring less than a B may repeat the course once before being dismissed from the program.

Required Courses..................................................................... 24 hours
PLSC510 Modern Public Administration (3 hrs)
PLSC515 Public Personnel Administration (3 hrs)
PLSC540 Public Budget Administration (3 hrs)
PLSC610 Public Organization Theory (3 hrs)
PLSC615 Public Budget Applications (2 hrs)
PLSC630 Public Bureaucracies and Policy Formation (3 hrs)
PLSC677 Analytical Methods for Public Administration (2 hrs)
PLSC678 Analytical Techniques for Public Administration (3 hrs)
PLSC695 Research Seminar in Public Administration (2 hrs)

## Restricted Elective Courses. <br> $.8-12$ hours <br> Four courses from the following: <br> PLSC565 Studies in State and Local Government (2 hrs) <br> PLSC587 Cooperative Education in Political Science (3 hrs) <br> PLSC590/591/592 Special Topics (1/2/3 hrs) <br> PLSC597/598/599 Independent Study ( $1 / 2 / 3 \mathrm{hrs}$ ) <br> PLSC620 Administrative Law (2 hrs) <br> PLSC625 Local Government Management (2 hrs) <br> PLSC635 Public Policy Analysis Techniques and Applications (2 hrs) <br> PLSC640 Modern County Government (2 hrs) <br> PLSC645 Intergovernmental Relations (2 hrs) <br> PLSC650 Urban Poverty Policy (2 hrs) <br> PLSC655 Politics of Local Planning (2 hrs) <br> PLSC660 Public Health Care Policy (2 hrs) <br> PLSC665 Basic Arbitration Training for Professionals (2 hrs) <br> PLSC688 Practicum in Public Affairs ( 3 hrs ) <br> PLSC697/698/699 Independent Study (1/2/3 hrs)

## Concentration Courses

.8 -12 hours
Select one of the following eight concentration.....................................
I. Public Management 8-12 hours

Select four courses total with at least one course each from area $A$ and area B:
A) Communication and Human Interaction

GEOG553 Urban and Regional Planning (2 hrs)
ECON505 Collective Bargaining in Public and Private Sectors (3 hrs)
MGMT625 Management in Unionized Settings (3 hrs)
EDLD710 Leadership Theory (2 hrs)
One graduate course in CTAC selected in consultation with the M.P.A. Director.
B) Techniques

INDT502 Microcomputer Applications in
Administration and Research (3 hrs)
SOCL678 Methods in Social Program Evaluation (3 hrs)
GEOG579 Geographical Information Systems (3 hrs)
SWRK681/EDPS681 Special Topics: Grant Writing (3 hrs)

Note:
Students concentrating in public management will be required to enroll in PLSC625 Local Government as one of their restricted electives listed above.
II. Health Administration 10-12 hours

HLAD510 Medical Care Organization (3 hrs)
HLAD511 Health Law (3 hrs)
HLAD512 Reimbursement for Health Care Services (2 hrs)
One additional course that is complementary to the particular area of interest.

Note:
Students concentrating in health administration will be required to enroll in PLSC660 Public Health Care Policy as one of their restricted electives listed above.
III. Land Planning and Development

8-11 hours
GEOG553 Urban and Regional Planning ( 2 hrs )
Three courses from the following:
PLSC520 Land Use and Preservation Law (3 hrs)
GEOG555 Comprehensive Planning ( 3 hrs )
GEOG556 Zoning (2 hrs)
GEOG557 Community Development and Downtown Revitalization (3 hrs)
GEOG570 Rural Planning and Preservation (2 hrs)
GEOG581 Advanced Environmental Assessment (3 hrs) GHPR530 Introduction to Historic Preservation (2 hrs)

## Note:

Students concentrating in land planning and development will be required to enroll in PLSC655 Politics of Local Planning as one of their restricted electives listed above.
IV. Gerontology 12 hours

GERT512 Applied Psychosocial Aspects of Aging (3 hrs)
SWRK552 Policy Issues and Older People (3 hrs)
SWRK553 Ethnicity and Gender Issues Among the Aged (3 hrs)
One course from the following:
GERT417 Work and Retirement (3 hrs)
GERT514 Caregiving and the Elderly (3 hrs)
SOCL681 Special Topics: Contemporary Issues in Aging (3 hrs)

Note:
Students concentrating in gerontology will be required to enroll in PLSC660 Public Health Care Policy as one of their restricted electives listed above.
V. Human Resource Administration 12 hours

MGMT618 Staffing Organizations (3 hrs)
MGMT620 Compensation Management (3 hrs)
MGMT628 Human Resource Development (3 hrs)
One course from the following:
ECON505 Collective Bargaining in Public and Private Sectors (3 hrs)
MGMT625 Management in Unionized Settings (3 hrs)
Note:
Students concentrating in buman resource management will be required to enroll in PLSC655 as one of their restricted electives listed above. PLSC515 will substitute for MGMT609 as a prerequisite for MGMT618, MGMT620 and MGMT628. PLSC610 will substitute for MGMT605 as a prerequisite for this concentration only.
VI. Organization Management
MGMT602 Theory and Techniques of Organizational
Development ( 3 hrs )
MGMT610 Diagnostic and Quantitative Methods in
Organizations (3 hrs)
Two courses from the following:
MGMT615 Organization Design and Strategy ( 3 hrs )
MGMT628 Human Resource Development (3 hrs)
MGMT638 Building Continuous Improvement
Teams (3 hrs)
MGMT648 Communication and Organizational
Development (3 hrs)

Note:
Students concentrating in organization management will be required to enroll in MGMT505 or PSY565 as a prerequisite to all courses in this concentration. MGMT505 or PSY565 will count as an elective in the M.P.A. curriculum.

VII. Public Safety

8 hours

INDT525 Managing a Police Agency (2 hrs)

INDT530 Administration of Police Agencies (2 hrs)

INDT535 Planning Skills for Police Agencies (2 hrs)

INDT540 Police Personnel Administration (2 hrs)

INDT545 Technical Skills for Effective Police Management (2 hrs)

INDT550 Issues and Skills for Senior Command and Staff
Officers (2 hrs)

Note:
Students concentrating in public safety should be aware that some INDT courses required for this program call for nomination and admission to the Staff and Command School prior to enrollment. Please refer to this section of the graduate catalog for further information.

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VIII. Nonprofit Management 13-14 hours
ACC646 Financial Management of Nonprofit Organizations (3 hrs)
LAW603 Legal, Governance and Fundraising Issues in Nonprofit Organizations (3 hrs)
PLSC645 Intergovernmental Relations ( 2 hrs )
Two courses from the following:
ACC605 Strategic Information and Control Systems (3 hrs)
MGMT570 Starting New Ventures (3 hrs)
MGMT628 Human Resource Development (3 hrs)
SWRK570 Supervising Staff and Volunteers (3 hrs)
SWRK662 Grant Writing and Resource Development (3 hrs)
SWRK694 Community Action Seminar (2 hrs)
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Note:
Students concentrating in nonprofit management will be required to enroll in PLSC565 as an elective in the M.P.A. curriculum.

Program Total 44 hours

## GRADUATE CERTIFICATE in Community Building (CBLD)

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE in General Public Management (GPM)

Required Courses..<br>$\qquad$ 13-15 hours PLSC510 Modern Public Administration (3 hrs) PLSC515 Public Personnel Administration (3 hrs) PLSC540 Public Budget Administration (3 hrs) Two courses from the following:

PLSC610 Organizational Theory (3 hrs)
PLSC615 Public Budget Administration (2 hrs)
PLSC620 Administrative Law (2 hrs)
PLSC625 Local Government Management (2 hrs)
PLSC630 Public Bureaucracies and Policy Formation (3 hrs)
PLSC645 Intergovernmental Relations (2 hrs)
Certificate Total. 13-15 hours

## GRADUATE CERTIFICATE in Local Government Management (LGM)

Required Courses<br>$\qquad$ 13 hours<br>PLSC510 Modern Public Administration (3 hrs)<br>PLSC515 Public Personnel Administration ( 3 hrs )<br>PLSC540 Public Budget Administration (3 hrs)<br>PLSC625 Local Government Management (2 hrs)<br>One course from the following:<br>PLSC565 State and Local Government (2 hrs)<br>PLSC650 Urban Poverty Policy (2 hrs)<br>PLSC655 Politics of Local Planning (2 hrs)<br>PLSC645 Intergovernmental Relations (2 hrs)<br>Certificate Total<br>.13 hours<br>GRADUATE CERTIFICATE in Management of Public Healthcare Services (MPH)

See page 35 for Interdisciplinary studies listings.

GRADUATE CERTIFICATE in Nonprofit Management (NPMG)

See page 35 for Interdisciplinary studies listings.

GRADUATE CERTIFICATE in Public Budget Management (PBM)

See page 35 for Interdisciplinary studies listings.

# GRADUATE CERTIFICATE <br> in Public Land Planning and Development Management (PLP) 

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE in Public Personnel Management (PPM)

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE in Public Policy Analysis (PPA)

See page 35 for Interdisciplinary studies listings.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

PLSC410 Political Science in Fiction (3 hrs)<br>PLSC412 Comparative Legal Systems (3 hrs)<br>PLSC418 20th Century Political Theory (3 hrs)<br>PLSC420 Democracy and Power (3 hrs)<br>PLSC422 American Political Theory (3 hrs)<br>PLSC431 Theories of Public Organization (3 hrs)<br>PLSC456 Criminal Law I (3 hrs)<br>PLSC462 Russian Foreign Relations (3 hrs)<br>PLSC479 Independent Studies (3 hrs)

## Department of Psychology

Campus Address: 537 Mark Jefferson Internet: www.emich.edu/public/psych/index.htm Telephone: 734.487.1155 (department) 734.487.0047 (graduate office)<br>E-mail: jknapp@emich.edu

See page 233 for course descriptions.

The Department of Psychology offers graduate programs leading to a doctor of philosophy in clinical psychology and master of science degrees in psychology with emphases in general experimental psychology, clinical psychology and clinical behavioral psychology.

## DOCTOR OF PHILOSOPHY in Clinical Psychology (PSYD) <br> General Clinical (GC) Track (PSYC) <br> Clinical Behavior (CB) Track (PSYB)

The graduate psychology programs are in the process of revision. Please contact the department with any questions regarding degree requirements.

## Objectives

The purpose of the doctoral program is to graduate license-eligible clinical psychologists with state-of-the-art knowledge relating to the psychological practice of assessment, therapy, research, and program development and evaluation. A primary program objective is the preparation of clinical psychologists who will be effective in supervising and managing therapists in multidisciplinary mental health care delivery systems in a diverse society. To meet these objectives, the program emphasizes fundamental scientist-practitioner skills such as practical clinical skills in assessment and treatment, and scholarly skills in designing, conducting, analyzing and disseminating research that contributes to the field of psychology. Students will acquire specialty skills needed for health care systems management that include
conducting program evaluation research, demonstrating administrative/ clinical management skills, developing training programs in treatment and assessment, establishing community education programs and supervising master's-level clinicians.

To meet these objectives, students will be provided with opportunities to:

1. Practice assessment and treatment skills in a highly supervised environment.
2. Work with and be supervised by faculty with expertise in a variety of assessment and treatment modalities.
3. Use state-of-the-art equipment and technology employed in the field today.
4. Propose and conduct research.
5. Participate in a collegial atmosphere that is open to diverse opinions and viewpoints and prepares students to analyze the current literature critically.

## Curriculum Design

The doctoral program is a full-time, full-residency program that is designed to be completed in five years. No part-time students will be accepted. The curriculum is designed to meet or exceed state and national guidelines for licensing and accreditation. The following curriculum components have been included:

State Licensing: Guidelines for licensing Ph.D. psychologists in Michigan state that a Ph.D. degree in clinical psychology must include, "an integrated, organized sequence of study which includes instruction in research design and methodology, statistics, psychometrics, and scientific and professional ethics and standards." The minimum requirements include a graduate course in three of the four bases of behavior (biological, cogni-tive-affective, social and individual differences) and courses in assessment and treatment. The national licensing exam covers all four subfields, as well as expertise in assessment and treatment. Our clinical program meets the more stringent national standard.

APA accreditation: The program is not currently APA accredited. We will be applying for accreditation as soon as the program is eligible, when students are enrolled in each year of the five-year program. To become APA accredited, clinical Ph.D. programs must comply with several standards. Along with the knowledge base outlined by the state, APA Guidelines require clinical Ph.D. programs to provide students with, "... adequate and appropriate practicum experiences" that provide supervision in a "wide range of training and educational experiences through applications of empirically supported intervention procedures," and that prepracticum experience be integrated into the education program. In keeping with these guidelines, the program will provide extensive training in an on-site clinic, staffed and supervised by our faculty. We also require an off-site clinical practicum to diversify clinical training and fulfill requirements for master'slevel licensing en route to the Ph.D.

Specialty tracks: Our current M.S. in clinical psychology programs offer two different philosophical approaches. The clinical behavioral (CB) program defines clinical problems in terms of observable behavior and focuses on treatments involving changing the environment to help clients learn new behaviors. The general clinical (GC) program provides a multitheoretical view of psychological disorders that emphasizes assessment, diagnosis and treatment from various perspectives. A unique feature of the doctoral program is the opportunity to emphasize either a GC or CB track, with exchange of ideas between the two.

Integration of M.S. and Ph.D. curricula: The doctoral program builds on our current M.S. programs. Competent M.S. and Ph.D. clinicians must learn a complex of specialized assessment and treatment strategies. Our two M.S. programs concentrate on training effective therapists. Well-prepared Ph.D. clinicians need this skill-based training, as well as broad knowledge of the empirical, theoretical and philosophical underpinnings of the profession. Our doctoral program includes a series of Ph.D. seminars that serve as links between concurrently taught M.S.-level courses, the Ph.D. knowledge base and prepracticum training. GC and CB faculty teach these courses jointly in order to integrate their two philosophical approaches. For each two-credit course, students are required to spend two hours per week in scholarly discussions relevant to treatment, assessment, clinical practice and to participate in three-to-five hours per week in a prepracticum experience. The topics in the seminars will directly link material taught in the M.S.
courses to the skills outlined above. Most Ph.D. programs require only a first-year seminar to introduce the profession. Our program fosters strong cohort groups by continuing this dialogue throughout the program. Prepracticum work for the seminars will require three-to-five hours per week of client contact at the on-site clinic and two hours weekly in group and individual supervision. After mastering M.S.-level skills, Ph.D. students will learn to train and supervise master's-level clinicians. Doctoral students will also take several courses designed to teach them the skills necessary to manage, supervise and evaluate health care systems. The curriculum is the only one of its kind in Michigan and one of very few in the nation. The curriculum includes psychology courses in organizational health care systems management, as well as existing courses in the human resource management and health and human services programs at EMU.

Doctoral Fellowship: To help ensure the success of our students in the program, every student accepted will be eligible for full-time doctoral fellowship while they are enrolled in the program full time. Students will be assigned to a faculty member in their area of research interest. Students will spend 15 -to- 20 hours per week with that faculty member, assisting with research and teaching activities. Fellows may be asked to help with class preparations, as well as assist in data collection, preparation and analysis. The faculty members will serve as mentors to their students, training and guiding them in developing their own research plans for master's thesis and dissertation work. Students may request a specific faculty person as their mentor, and may request a change in mentor as they matriculate through the program. Every effort will be made to accommodate student requests within reason. Doctoral fellowship's include a tuition waiver and a stipend.

## Admission Requirements

Admission to the program is based on the following criteria:

1. Academic ability as measured by verbal, quantitative and analytical scores on the GRE. In keeping with other Ph.D. programs in the state and with national criteria, admission requires a minimum of 1000 on the verbal and quantitative sections combined. However, successful applicants may present much higher scores given the highly competitive nature of clinical doctoral programs. Applicants are required to take the Advanced Psychology Test offered with the GRE.
2. Achievement in undergraduate or graduate work. Admission requires a minimum standard of a 3.0 on a 4.0 scale undergraduate GPA. Again, successful applicants typically present much higher GPAs. Emphasis is placed on the GPA in psychology and in the last two undergraduate years. We will also consider admitting a limited number of M.S. clinicians. We will consider where students obtained their degrees, how recently course work was completed, and what clinical work they have pursued since obtaining their degree. Course requirements will be determined on a case-by-case basis.
3. Academic background in psychology. Applicants must have completed a minimum of 20 semester hours in psychology, including a course in statistics and a laboratory course in experimental psychology. While not a prerequisite, courses in history and systems and/or abnormal psychology are highly desirable.
4. Personal qualities that predict success in graduate study and in professional placement after graduation. To evaluate these, each applicant must submit three letters of recommendation and complete a personal interview after an initial screening.
5. Fit between applicant and faculty interests. A personal statement is requested describing the applicant's interests. We will be particularly interested in students who have had research and/or clinical experiences similar to those of our faculty.

## Steps for Admission

Send to Graduate School:

1. Graduate School application and $\$ 30$ application fee. The personal statement you submit to the Department of Psychology may be used for the Graduate School application;
2. Official transcripts of all education beyond high school. Note: under current practice only when your Graduate School application and transcripts have been received by the Graduate School will your application be sent to the Department of Psychology. Consequently,
you should also submit unofficial transcripts to the Department of Psychology directly with your application;
3. Official GRE results; and
4. If applicable, submit evidence of English language proficiency as demonstrated by official test scores on the TOEFL, TWE or MELAB.

Send to Department of Psychology:

1. Department application;
2. Three letters of recommendation, preferably from psychologists. At least one letter should be from a supervisor or teacher who is familiar with your clinical and/or academic work;
3. A vita or résumé and a writing sample that demonstrates scholarly abilities (research paper);
4. Unofficial transcripts and GRE scores (optional); and
5. Personal statement (see application for details).

Applications can be obtained from the graduate secretary or accessed via our Web site at www.emich.edu/public/psych/index.htm. Completed applications, including GRE scores, letters of recommendation and transcripts, must be received by the Department of Psychology by January 15 for full consideration. Late applications may be considered until all openings are filled. Applicants will be notified by March 1 if an interview is warranted. In accordance with APA guidelines, acceptance notices will be made by April 15.

Eastern Michigan University and the Department of Psychology reserve the right to change any statement in this program concerning, but not limited to, rules, policies, tuition, fees, curricula and courses.

## Program Requirements

The clinical doctoral program requires the completion of 90 to 91 graduate hours. The master's degree is earned enroute to the doctoral degree, after completing all requirements specified in the general clinical (GC) or clinical behavioral ( CB ) master's programs. Students in the doctoral program must complete a master's thesis. Students may choose to specialize in the general clinical or clinical behavioral track for their master's-level work. All students will specialize in health care systems management; there is no cognate or minor requirement.

## Assessment. <br> $\qquad$ <br> .8, 12 hours <br> $G C$ track requires eight hours; CB track requires 12 hours:

## GC Requirements:

PSY762 Wechsler Intelligence Testing (4 hrs)
One course from the following:
PSY770 Personality Evaluation I (4 hrs)
PSY771 Projective Techniques (4 hrs)

## CB Requirements:

PSY762 Wechsler Intelligence Testing (4 hrs)
PSY619/PSY641 Behavioral Assessment and
Prepracticum (3/1 hrs)
PSY623/PSY651 Experimental Analysis of
Behavior and Prepracticum ( $3 / 1 \mathrm{hrs}$ )
Treatment $\qquad$ $.8,12$ hours
$G C$ track requires eight hours; $C B$ track requires 12 hours.
Note: All treatment courses are three credits with a one-credit prepractica component

## GC Requirements:

PSY751/731 Psychotherapy (3/1 hrs)
PSY720/791 Psychotherapy with Children and Families (3/1 hrs) CB Requirements:

PSY625/661 Behavior Change Methods I
Applied Behavior Analysis (3/1 hrs)
PSY627/671 Behavior Change II: Behavior Therapy ( $3 / 1 \mathrm{hrs}$ )
One course from the following:
PSY628/631 Behavioral Interventions with Children and Families ( $3 / 1 \mathrm{hrs}$ )
PSY630/621 Behavioral Medicine (3/1 hrs)

Individual Differences $\qquad$ .9, 3 hours
$G C$ track requires nine hours; $C B$ track requires three hours.
GC Requirements:
PSY743 Psychopathology (3 hrs)
PSY640 Developmental Psychology (3 hrs)
PSY646 Personality: Theory and Research (3 hrs)
CB Requirements:
One course from the following.
PSY640 Developmental Psychology (3 hrs)
PSY646 Personality: Theory and Research (3 hrs)
Cognitive-Affective Bases of Behavior ........................................ 3 hours
GC Requirements:
One course from the following:
PSY626 Motivation and Emotion (3 hrs)
PSY635 Cognitive Processes (3 hrs)
PSY620 Learning (3 hrs)
CB requirement:
PSY620 Learning (3 hrs)
Biological Bases of Behavior
3 hours
One course from the following:
PSY629 Physiological Psychology (3 hrs)
PSY610 Clinical Neuropsychology (3 hrs)
PSY632 Sensation and Perception (3 hrs)
Social Bases of Behavior.............................................................. 3 hours
One course from the following:
PSY637 Social Psychology ( 3 hrs )
PSY701 Organizational Systems Theory ( 3 hrs )

Research..
20-24 hours
PSY600 Psychological Statisti........................................
PSY601 Psychological Statistics II (3 hrs)
PSY605 Research Design Methods (3 hrs)
PSY685 Developing the Master's Thesis (2 hrs)
PSY895 Developing the Doctoral Dissertation Proposal (2 hrs)
PSY690/691/692 Master's Thesis (1/2/3 hrs)
Minimum of one master's thesis credit required.
PSY896/897/898/899 Dissertation (1/2/4/8 hrs)
Minimum of six dissertation credits required.
Professional Practice/Teaching $\qquad$ .8, 7 hours
PSY807 Methods of Teaching, Clinical Supervision and Training (2 hrs)
PSY777 Advanced History and Systems of Psychology (3 hrs)
GC Requirement:
PSY750 Clinical Psychology (3 hrs)
CB Requirement:
PSY670 Scientific and Professional Ethics (2 hrs)
Practicum ................................................................................. 6 hours
GC Requirements:
PSY788 Practicum in Clinical Psychology (3 hrs)
PSY789 Practicum in Clinical Psychology II (3 hrs)
CB Requirements:
PSY683 Field Practicum with seminar (3 hrs)
PSY684 Field Practicum with seminar (3 hrs)
Doctoral Seminars and Doctoral Prepractica..
16 hours
PSY881 Assessment and Diagnosis (2 hrs)
PSY882 Assessment and Treatment (2 hrs)
PSY883 Issues in Professional Behavior (2 hrs)
PSY884 Contrasting Traditional and Behavioral Approaches to Treatment (2 hrs)
PSY885 Models of Service Delivery, Training and Supervision (2 hrs)
PSY886 Applying the Core Curriculum to Clinical Issues (2 hrs)
PSY887 Internship and Professional Issues (2 hrs)
PSY888 Assessment and Treatment of Diverse Clinical
Populations (2 hrs)

Health Care Systems Electives<br>$\qquad$ .9 hours<br>PSY703 Clinical Organizational Management (3 hrs)<br>Two courses from the following, one must be a MGMT course:<br>MGMT505 Organizational Behavior and Business Communication (3 hrs)<br>MGMT509 Human Resource Management (3 hrs)<br>MGMT601 Survey Development for Organizations (3 hrs)<br>MGMT602 Theory and Techniques of Organizational Development (3 hrs)<br>MGMT615 Organization Design and Strategy (3 hrs)<br>MGMT618 Staffing Organizations (3 hrs)<br>MGMT628 Human Resource Development (3 hrs)<br>MGMT648 Communication and Organizational Development (3 hrs)<br>MGMT688 Practicum in Human Resource Management: Organizational Development (3 hrs)<br>PSY705 Clinical Ecological Psychology (3 hrs)<br>PSY707 Practicum in Clinical Systems (3 hrs)<br>PSY801 Program Evaluation in Clinical Psychology (3 hrs)

## Other Program Requirements

Master's Prepracticum 200 to 300 hours (on-site; taken in conjunction with master's courses)
Doctoral Prepracticum 300 to 500 hours (on-site; taken in conjunction with doctoral seminars)
Practicum 500 to 600 hours (off-site)
Master's thesis
Qualifying exams (taken after third year of program)
M.S. clinical supervision and undergraduate teaching (done in third and fourth years of program)
Dissertation
Clinical Predoctoral Internship (2,000 hours)
Program Total
90-91 hours

## MASTER OF SCIENCE in Psychology (General Experimental) (PSY)

## Objectives

The curriculum produces master's-level psychologists with general knowledge of psychology in various content areas, research methodologies, and theoretical formulations. Based on a "mentor model," the program of study, progress, training and thesis are supervised by one or more faculty members. The general program does not prepare or qualify the student for a license in the state of Michigan as a clinical psychologist. It accommodates students preparing for a doctoral program or seeking career advancement in a basic or applied research area.

## Admission Requirements

Priority consideration will be given to applicants who meet all of the requirements for graduate degree admission status listed below:

1. Meet the academic requirements for admission to the Graduate School;
2. Have an undergraduate GPA of approximately 3.0 or better on a 4.0 scale;
3. Have at least 20 hours in psychology, including statistics and experimental psychology;
4. Submit a transcript of GRE scores in which the sum of the scores for the verbal and quantitative sections is approximately 1,000 or higher;
5. Present two letters of recommendation from employers or others who can testify to the applicant's suitability for the program of study; and
6. Submit a written account of their academic and professional history and professional goals.

Incomplete applications may not be considered. Credits earned under non-degree student status do not automatically apply to the requirements of the degree program.

Applications should be submitted to the Graduate School as stipulated in this catalog. A copy of the application should also be mailed directly to the Department of Psychology.

There are no admissions to degree programs in the spring and summer sessions. After the admission quota for the program has been met, students will be placed on a waiting list, which does not guarantee admission unless spaces become available.

## Course Requirements

The master of science in general experimental psychology requires 30 graduate hours, with at least 24 in psychology. All students who apply should seek a faculty adviser, or mentor, to act as their sponsor. Students uncertain about a mentor choice, or applying from another campus and unfamiliar with the faculty, may be assigned a temporary mentor by the coordinator of the general program. The program is highly individualized and the mentor supervises the student's training, research and master's thesis. Should a student's interests change, a new mentor may be selected with approval from both faculty members and the general experimental program coordinator.

```
Required Core Courses.
    PSY600 Psychological Statistics I (3 hrs)
    PSY620 Learning (3 hrs)
    PSY646 Personality: Theory and Research (3 hrs)
    PSY692 Thesis (3 hrs)
Restricted Elective Courses .................................................... }6\mathrm{ hours
    Two courses from the following:
        PSY601 Psychological Statistics II (3 hrs)
        PSY605 Research Design (3 hrs)
        PSY623 Experimental Analysis of Behavior (3 hrs)
        PSY626 Motivation and Emotion (3 hrs)
        PSY629 Physiological Psychology (3 hrs)
        PSY632 Sensation and Perception (3 hrs)
        PSY635 Cognitive Processes (3 hrs)
        PSY637 Social Psychology (3 hrs)
        PSY640 Developmental Psychology (3 hrs)
        PSY651 Prepracticum: Experimental Analysis of Behavior (1
                hr) (to be taken concurrently with PSY623)
```

Elective Courses.
.6-12 hours
Six to 12 hours of psychology courses selected within the department in consultation with the graduate adviser.

Cognate Courses.
.0-6 hours Zero to six hours selected from outside the department in consultation with the graduate adviser.

Program Total 30 hours

## MASTER OF SCIENCE in Psychology (Clinical Behavioral) (PSYB)

This program prepares students for professional practice of psychology as limited license psychologists in Michigan, typically in such institutional settings as community mental health centers and private and public clinics and agencies, under the supervision of a doctoral-level psychologist. Students develop a wide range of behaviorally oriented skills for assessment and treatment, such as functional analysis, relaxation training, stress management and family intervention. The program stresses competency skills for employment as a master's-level psychologist in community mental health centers, outpatient clinics, private agencies, substance abuse programs, state agencies for persons with mental illness or developmental disabilities, traumatic brain injury centers, and agencies for family and children. Graduates may also pursue advanced training at the doctoral level.

## Objectives

1. To provide preparation for diverse employment opportunities in behavior therapy and applied behavior analysis.
2. To prepare students to meet state requirements for licensing master'slevel psychologists.
3. To emphasize treatment skills.
4. To offer opportunity for basic and applied research.
5. To provide preparation for doctoral work.
6. To enable program completion by night attendance only, or in two years for full-time students.

## Admission Requirements

Priority consideration will be given to applicants who meet all of the requirements for graduate degree admission status listed below:

1. Meet the academic requirements for admission to the Graduate School;
2. Have an undergraduate GPA of approximately 3.0 or better on a 4.0 scale;
3. Have at least 20 hours of credit in psychology, including statistics and experimental psychology;
4. Submit a transcript of GRE scores in which the sum of the scores for the verbal and quantitative sections is approximately 1000 or higher;
5. Present two letters of recommendation from employers or others who can testify to the applicant's suitability for the program of study; and
6. Submit a written account of their academic and professional history and professional goals.

Incomplete applications may not be considered. Credits earned under non-degree student status do not automatically apply to the requirements of the degree program.

Applications should be submitted to the Graduate School as stipulated in this catalog. A copy of the application should also be mailed directly to the Department of Psychology.

There are no admissions to degree programs in the spring and summer sessions. After the admission quota for the program has been met, students will be placed on a waiting list, which does not guarantee admission unless spaces become available.

## Course Requirements

The M.S. in psychology (clinical behavioral) requires the completion of 45 hours of course work to be distributed among required core courses, assessment (evaluation) courses, treatment (intervention) courses, practicum courses, elective courses and cognate courses as follows:

```
Required Core Courses
```

$\qquad$

``` 11 hours
        PSY600 Psychological Statistics I (3 hrs)
    *PSY620 Learning (3 hrs)
    *PSY623 Experimental Analysis of Behavior (3 hrs)
        PSY670 Scientific and Professional Ethics (2 hrs)
Assessment (Evaluation) ........................................................ }7\mathrm{ hours
    *PSY619 Behavioral Assessment (3 hrs)
        One course from the following:
            PSY762 The Wechsler Intelligence Tests (4 hrs)
            PSY770 Personality Evaluation I (4 hrs)
```

Treatment (Intervention) $\qquad$ 6 hours
*PSY625 Behavior Change Methods I Applied Behavior Analysis (3 hrs) *PSY627 Behavior Change Methods II Behavior Therapy (3 hrs)

## Practicum

$\qquad$ .8 hours
PSY641 Prepracticum in Behavioral Assessment (to be taken concurrently with PSY619) ( 1 hr )
PSY651 Prepracticum in Experiment Analysis of Behavior (to be taken concurrently with PSY623) (1 hr)
PSY661 Prepracticum in Applied Behavior Analysis (to be taken concurrently with PSY625) ( 1 hr )
PSY671 Prepracticum in Behavior Therapy (to be taken concurrently with PSY627) ( 1 hr )
PSY683 Field Practicum with Seminar (250 hours field experience) (2 hrs)
PSY684 Field Practicum with Seminar (250 hours field experience) (2 hrs)

## Elective Courses <br> .13 hours <br> Thirteen hours selected from psychology courses within the department in consultation with the graduate adviser.

Cognate Courses....................................................................0-6 hours
Zero to six hours selected from courses outside the psychology department in consultation with the graduate adviser.

Program Total
45 hours

## Note:

*Students admitted to the clinical behavioral program must achieve a minimum grade of B in each of the following courses: PSY619, PSY620, PSY623, PSY625 and PSY627. A student who receives a grade lower than B in any of these courses may elect to repeat the class in order to meet graduation requirements.

## MASTER OF SCIENCE in Psychology (General Clinical) (PSYC)

Objectives
This program prepares students for professional practice of psychology as limited license psychologists in Michigan, typically in such institutional settings as community mental health centers and private and public clinics and agencies, under the supervision of a doctoral-level psychologist. Students are trained in diagnosis and treatment of psychiatric disorders using multitheoretical contemporary approaches.

Students are trained to recognize, assess and alleviate client problems. Graduates will be able to engage research problems typically found in the clinical setting. The practicum experiences provide opportunities to develop a variety of skills in assessment, diagnosis, psychotherapy and research, and foster professional growth through interaction with experts from allied areas such as medicine, social work, psychiatry and public health. Graduates of this program have successfully gained admission to doctoral programs in psychology.

## Admission Requirements

Priority consideration will be given to applicants who meet all of the requirements for graduate degree admission status listed below:

1. Meet the academic requirements for admission to the Graduate School;
2. Have an undergraduate GPA of approximately 3.0 or better on a 4.0 scale;
3. Have at least 20 hours in psychology, including statistics and experimental psychology;
4. Submit a transcript of GRE scores in which the sum of the scores for the verbal and quantitative sections is approximately 1000 or higher;
5. Present two letters of recommendation from employers or others who can testify to the applicant's suitability for the program of study; and
6. Submit a written account of their academic and professional history and professional goals.

Incomplete applications may not be considered. Credits earned under non-degree student status do not automatically apply to the requirements of the degree program.

Applications should be submitted to the Graduate School as stipulated in this catalog. A copy of the application should also be mailed directly to the Department of Psychology.

There are no admissions to degree programs in the spring and summer sessions. After the admission quota for the program has been met, students will be placed on a waiting list, which does not guarantee admission unless spaces become available.

## Course Requirements

The M.S. in psychology (general clinical) requires the completion of 45 hours of course work to be distributed among required core courses, assessment courses, professional practice/treatment courses, practicum courses, elective courses and cognate courses as follows:
Required Core Courses.......................................................
PSY600 Psychological Statistics I (3rs)
PSY646 Personality: Theory and Research (3 hrs)
PSY743 Psychopathology (3 hrs)
Assessment 8 hours
PSY762 The Wechsler Intelligence Tests (4 hrs)
One course from the following:
PSY770 Personality Evaluation I (4 hrs)
PSY771 Projective Techniques (4 hrs)
Professional Practice/Treatment

$\qquad$
7 hours
PSY 0 Clinical Psychology ( 3 hrs
PSY751/731 Psychotherapy (4 hrs)
Practicum 6 hours PSY789 Practicum in Clinical Psychology II (3 hrs)
Elective Courses9-16 hoursNine to 16 hours selected from psychology courses within the departmentin consultation with the graduate adviser.
Cognate Courses.

$\qquad$
.0-6 hours
Zero to six hours selected from outside the psychology department in consultation with the graduate adviser.
Program Total45 hours

# Department of Sociology, Anthropology and Criminology 

Campus Address: 712-A Pray-Harrold Internet: www.sac.emich.edu Telephone: 734.487.0012
E-mail: jay.weinstein@emich.edu
See pages 170, 185, and 239 for course descriptions.

The department offers graduate degree programs in sociology and in criminology and criminal justice. Programs in family specialty and in evaluation and applied research are also available within the sociology degree.

## MASTER OF ARTS in Criminology and Criminal Justice (CRM)

Objectives

1. Attainment of advanced education for persons who wish to enter careers in post-secondary education.
2. Development of skills in research and in program planning and evaluation in criminology and criminal justice.
3. Strengthening of the professional qualifications of persons employed in the fields of criminal justice.
4. Preparation for doctoral study in a behavioral or social science.

The analytical and evaluative skills stressed by this program enable students to identify and assess the often conflicting objectives of criminal justice and investigate basic issues and practical problems in criminology and the administration of criminal justice.

## Admission Requirements

Degree Admission
Applicants must:

1. Meet the graduate school requirements;
2. Have at least a 3.0 undergraduate GPA, and have completed the following courses or equivalent:
*SOCL250 Social Statistics I
*SOCL304 Methods in Sociological Research CRM300 Criminal Justice CRM301 Criminology

## Note: <br> *SOCL341 Quantitative Methods of Social Research I and SOCL342 Quantitative Methods of Social Research II can be substituted for SOCL250 and SOCL304. A grade of no less than a $B$ is required.

## Conditional Admission

Applicants who meet the GPA requirement but lack one or more required courses may be admitted conditionally with the permission of the program chair; course deficiencies should be completed prior to taking required graduate courses.

## Degree Requirements

The M.A. in the criminology and criminal justice program requires either a thesis or two essays for the non-thesis option.

Option I: Thesis students must complete a thesis on a subject determined in consultation with their adviser, in light of their interests. The completed thesis must be approved by the department. Four hours of thesis credit are earned.

Option II: Non-thesis students must submit two essays dealing with methodological, substantive or theoretical issues in criminology and criminal justice. These may be based on papers completed in graduate courses, but must be of higher quality than usual term papers, meet departmental requirements, and be approved by the department. No credit hours are earned for these essays.

## Course Requirements

The M.A. in criminology and criminal justice requires the completion of 31 hours of course work to be distributed among required courses, program area courses, elective courses and cognate courses as follows:
Required Courses. ..... $0-4$ hours
Select from either option I or option II:
Option I: CRM690/691/692 Thesis (4 hrs)
Option II: Non-thesis option (0 hrs)
Program Area ..... 21 hours
SOCL412G/CRM412G Law and Society (taken for graduate credit) (3 hrs)
CRM610 Theories of Criminal Behavior (3 hrs)
SOCL647 Contemporary Community Structure ( 3 hrs )
SOCL677 Advanced Methods in Sociological Research (3
SOCL678 Methods in Social Program Evaluation (3 hrs)

$\qquad$
6-10 hours
Six to 10 hours selected in consultation with the graduate adviser.31 hours

## MASTER OF ARTS in Sociology (SOC)

The M.A. program in sociology prepares students for public and private sector careers, for doctoral study in sociology and for post-secondary teaching. Students are required to select one of three programs: sociology (SOC); family specialty (SOCF) or applied research specialty (SOC).

## Admission Requirements

Degree Admission
Applicants must:

1. Meet the requirements of the graduate school;
2. Have an undergraduate GPA of at least 3.0; if the GPA is below 3.0, applicant should contact the graduate coordinator, who may request that they attain a score at the 60th percentile on the GRE. A GRE score is not required if the GPA is 3.0 or above;
3. Have completed the following prerequisite courses or their equivalent*:

SOCL250 Social Statistics I<br>SOCL304 Methods in Sociological Research<br>SOCL403 Modern Sociological Theory

*Applicants lacking one or more of the three prerequisite courses listed above may be granted a conditional admission. Credit earned for these courses will not be applied to their degree credits.
4. Submit a two-to-three page personal statement, highlighting the manner in which past academic, employment, volunteer or other relevant personal experiences have shaped their interest in a master's degree in sociology. The applicant should also discuss the manner in which this degree will enhance their future career plans; and
5. Submit two letters of reference, from either academic or employment sources.

## Degree Requirements

Thesis Option: In addition to the coursework outlined below, thesis students must complete a thesis on a subject determined in consultation with their departmental thesis committee, as per Graduate School guidelines. The completed thesis must be approved by the student's departmental thesis committee, as per departmental guidelines. Four thesis credit hours are earned.

Non-Thesis Option: In addition to the coursework outlined below, non-thesis students must submit two essays dealing with methodological, substantive or theoretical issues in sociology. These may be based on papers completed in graduate courses but must be of higher quality than usual term papers, must meet departmental requirements and be approved by their non-thesis essay committee. No credit hours are earned for these essays.

## Course Requirements

The M.A. in sociology requires the completion of 31 hours of course work to be distributed among required courses, program courses, elective courses and cognate courses as follows:

[^11]Option I: SOCL690/691/692 Thesis (4 hrs)
Option II: Non-thesis option (0 hrs)
Required Concentration Courses. 12 hours SOCL503 The Family as an Institution (3 hrs)

SOCL513/CRM513 Social Deviance (3 hrs)
SOCL640 Advanced Sociological Theory (3 hrs)
SOCL647 Contemporary Community Structure (3 hrs)
Elective Courses ..0-10 hours
Elective courses should be selected in consultation with the graduate coordinator. Any graduate-level course in sociology, criminology or anthropology (except for those counted as required courses) are eligible for elective credit. Approved 400-level undergraduate courses in sociology, anthropology or criminology may be used as well, upon consultation with and permission of the graduate coordinator.

Cognate Courses. . 0-9 hours
Graduate level courses taken through departments/disciplines other than sociology, anthropology or criminology constitute cognate credit. These choices should be made in consultation with the graduate coordinator.

Program Total
31-34 hours

## MASTER OF ARTS in Sociology - Family Specialty (SOCF)

This program provides knowledge and skills in theory and methodology, with specific emphasis on the family as a social institution. It prepares students for responsible positions in the public and private sectors by addressing the following goals:

1. Achievement of academic knowledge required to pursue the Ph.D. in sociology or teach at the community college level;
2. Increased knowledge and skills for students already employed in applied fields of sociology, especially in agencies working with families in social service agencies, schools, courts, hospitals or community education, within both public and private sectors; and
3. Preparation for careers in family sociology.

## Admission Requirements

## Degree Admission

Applicants must:

1. Meet the requirements of the graduate school;
2. Have an undergraduate GPA of at least 3.0; if the GPA is below 3.0, applicant should contact the graduate coordinator, who may request that they attain a score the the 60th percentile on the GRE. A GRE score is not required if the GPA is 3.0 or above;
3. Have completed the following courses or their equivalent*:

SOCL250 Social Statistics I
SOCL304 Methods in Sociological Research
SOCL403 Modern Sociological Theory
*Applicants lacking one or more of the three prerequisite courses listed above may be granted a conditional admission. Credit earned for these courses will not be applied to their degree credits.
4. Submit a two-to-three page personal statement, highlighting the manner in which past academic, employment, volunteer or other relevant personal experiences have shaped their interest in a master's degree in sociology. The applicant should also discuss the manner in which this degree will enhance their future career plans; and
5. Submit two letters of reference, from either academic or employment sources.

## Degree Requirements

Thesis Option: In addition to the coursework outlined below, thesis students must complete a thesis on a subject determined in consultation with their departmental thesis committee, as per Graduate

School guidelines. The completed thesis must be approved by the student's departmental thesis committee, as per departmental guidelines. Four thesis credit hours are earned.

Non-Thesis Option: In addition to the coursework outlined below, non-thesis students must submit two essays dealing with methodological, substantive or theoretical issues in sociology. These may be based on papers completed in graduate courses but must be of higher quality than usual term papers, must meet departmental requirements and be approved by their non-thesis essay committee. No credit hours are earned for these essays.

## Course Requirements

The M.A. in sociology-family specialty requires the completion of 31 hours of course work to be distributed among required program courses, concentration courses, elective courses and cognate courses as follows:

```
Required Courses.
```

$\qquad$

``` 9-13 hours
SOCL630 Advanced Social Statistics (3 hrs)
SOCL677 Advanced Methods in Sociological Research (3 hrs)
SOCL678 Methods in Social Program Evaluation (3 hrs)
Select from either option I or option II:
Option I: SOCL690/691/692 Thesis (4 hrs) Option II: Non-thesis option (0 hrs)
```

$\qquad$

``` 15 hours
```

Required Concentration Courses.

```
Required Concentration Courses.
    SOCL503 The Family as an Institution (3 hrs)
    SOCL503 The Family as an Institution (3 hrs)
    SOCL646 Research in Family Interaction (3 hrs)
    SOCL646 Research in Family Interaction (3 hrs)
    SOCL662 Supervised Field Experience (2 hrs)
    SOCL662 Supervised Field Experience (2 hrs)
    One course from the following:
    One course from the following:
        SOCL513/CRM513 Social Deviance (3 hrs)
        SOCL513/CRM513 Social Deviance (3 hrs)
        SOCL647 Contemporary Community Structure (3 hrs)
        SOCL647 Contemporary Community Structure (3 hrs)
    One course from the following:
    One course from the following:
        SOCL640 Advanced Sociological Theory (3 hrs)
        SOCL640 Advanced Sociological Theory (3 hrs)
        SOCL643 Organizations and Networks (3 hrs)
```

        SOCL643 Organizations and Networks (3 hrs)
    ```

\section*{Elective Courses} ..0-10 hours
Elective courses should be selected in consultation with the graduate coordinator. Any graduate-level course in sociology, criminology or anthropology (except for those counted as required courses) are eligible for elective credit. Approved 400-level undergraduate courses in sociology, anthropology or criminology may be used as well, upon consultation with and permission of the graduate coordinator.

\section*{Cognate Courses.}
\(\qquad\) . \(0-9\) hours Graduate level courses taken through depart..........................................................tser than sociology, anthropology or criminology constitute cognate credit. These choices should be made in consultation with the graduate coordinator.

Program Total \(\qquad\) 31-34 hours

\section*{MASTER OF ARTS in Sociology Applied Research Speciality (SOC)}

The M.A. program in sociology prepares students for public and private sector careers, for doctoral study in sociology and for post-secondary teaching. Students are required to select one of three programs: sociology (SOC); family specialty (SOCF) or applied research specialty (SOC).

\section*{Admission Requirements}

\section*{Degree Admission}

Applicants must:
1. Meet the requirements of the graduate school;
2. Have an undergraduate GPA of at least 3.0; if the GPA is below 3.0, applicant should contact the graduate coordinator, who may request
that they attain a score at the 60th percentile on the GRE. A GRE score is not required if the GPA is 3.0 or above;
3. Have completed the following courses or their equivalent*:

\section*{SOCL250 Social Statistics I}

SOCL304 Methods in Sociological Research
SOCL403 Modern Sociological Theory
*Applicants lacking one or more of the three prerequisite courses listed above may be granted a conditional admission. Credit earned for these courses will not be applied to their degree credits.
4. Submit a two-to-three page personal statement, highlighting the manner in which past academic, employment, volunteer or other relevant personal experiences have shaped their interest in a master's degree in sociology. The applicant should also discuss the manner in which this degree will enhance their future career plans; and
5. Submit two letters of reference, from either academic or employment sources.

\section*{Degree Requirements}

Thesis Option: In addition to the coursework outlined below, thesis students must complete a thesis on a subject determined in consultation with their departmental thesis committee, as per Graduate School guidelines. The completed thesis must be approved by the student's departmental thesis committee, as per departmental guidelines. Four thesis credit hours are earned.

Non-Thesis Option: In addition to the coursework outlined below, non-thesis students must submit two essays dealing with methodological, substantive or theoretical issues in sociology. These may be based on papers completed in graduate courses but must be of higher quality than usual term papers, must meet departmental requirements and be approved by their non-thesis essay committee. No credit hours are earned for these essays.

\section*{Course Requirements}

The M.A. in sociology-applied research specialty requires the completion of at least 31 hours of course work to be distributed among required program courses, concentration courses, elective courses and cognate courses as follows:
```

Required Courses............................................................9-13 hours
SOCL630 Advanced Social Statistics (3 hrs)
SOCL677 Advanced Methods in Sociological Research (3 hrs)
SOCL678 Methods in Social Program Evaluation (3 hrs)
Select from either option I or option II:
Option I: SOCL690/691/692 Thesis (4 hrs)
Option II: Non-thesis option (0 hrs)
Required Concentration Courses.............................................. 16 hours
SOCL647 Contemporary Community Structure (3 hrs)
*SOCL662 Supervised Field Experience (4 hrs)
SOCL695 Program Evaluation Skills Development (3 hrs)
One course from the following:
SOCL640 Advanced Sociological Theory ( 3 hrs )
SOCL643 Organizations and Networks (3 hrs)
One course from the following:
SOCL504 Demographic Analysis ( 3 hrs )
SOCL636 Qualitative Analyysis ( 3 hrs )
SOCL641 Theory Construction and Verification (3 hrs)

```

Elective Courses. ..0-10 hours
Elective courses should be selected in consultation with the graduate coordinator. Any graduate-level course in sociology, criminology or anthropology (except for those counted as required courses) are eligible for elective credit. Approved 400-level undergraduate courses in sociology, anthropology or criminology may be used as well, upon consultation with and permission of the graduate coordinator.

\begin{abstract}
Cognate Courses. \(\qquad\) .0-9 hours Graduate level courses taken through departments/disciplines other than sociology, anthropology or criminology constitute cognate credit. These
\end{abstract} choices should be made in consultation with the Graduate Coordinator.

Program Total 31-34 hours

Note:
*Two semesters (four credit hours) of supervised field experience, approved by graduate coordinator and department head to provide experience in either evaluation research or some aspects of applied sociology.

\section*{MASTER OF ARTS in Schools, Society and Violence (SSV)}

This interdisciplinary master's degree is intended for students who want to pursue advanced studies in conflict, crime and cooperation in the school context and is offered through the Department of Sociology, Criminology and Anthropology and the Department of Teacher Education. Students will gain an understanding of theoretical concepts, methodological techniques and the application of substantive interdisciplinary knowledge, enabling them to analyze, understand and effectively intervene to reduce harmful relational and institutional practices in school settings. Essential dimensions of the program include a linked internship in school settings, a student observation requirement and a thesis or non-thesis requirement through which students demonstrate the ability to integrate and apply relevant knowledge to address a particular dimension of the problem of school violence.

\section*{Objectives}

Program graduates will be able to demonstrate:
1. Through written and oral forms the ability to analyze complex problems associated with school violence;
2. An understanding of the larger social, historical, economic and ideological context producing violent social relations within schools;
3. Competence in qualitative and quantitative research methods; and
4. The ability to create positive solutions to school violence.

\section*{Admission Requirements}

Applicants must:
1. Comply with the Graduate School admission requirements;
2. Have at least a 2.7 undergraduate GPA;
3. Submit a letter of interest describing the applicant's career goals and reasons for pursuing this master's degree; and
4. Submit two letters of recommendation that address the applicant's professional commitment, experience and potential.

\section*{Conditional Admission}

Conditional admission may be granted at the discretion of the graduate committee.

\section*{Core courses: Crime, Conflict and Cooperation........................ 17 hours Foundational Requirement 2 hours SOCL694 Seminar (2 hrs) Research Methods Requirements 5 hours SOCL678 Methods in Social Program Evaluation (3 hrs) EDPS687 Qualitative/Interpretive Research (2 hrs) \\ Theoretical Course Requirements \\ 10 hours \\ SOFD572 History of American Education (2 hrs) \\ SOFD580 Sociology of Education (2 hrs) \\ CRM550/SOCL550 Domestic Violence and Sexual Assault (3 hrs) \\ SOCL508 Social Psychology (3 hrs)}

Substantive Focus: Discipline, Schooling and Social Control..8-14 hours Core courses

4 hours
ECE560 School and Classroom Discipline Management (2 hrs) SOFD541 Field Studies in Education (2 hrs)
```Restricted Elective Courses2-7 hoursTwo to seven hours from the following:
            CRM650 Media, Crime and Justice (3 hrs)
            CRM697/698/699 Independent Study (1/2/3 hrs)
            SOCL697/698/699 Independent Study (1/2/3 hrs)
            EDPS617 Children in Poverty: Educational
                Implications (2 hrs)
            SOFD535 Multicultural and International Education (2 hrs)
            SOFD581/WMST581 Gender and Education (3 hrs)
            SWRK610 Empowerment: Social Justice and Social
            Change (2 hrs)
        SWRK656 Crisis Intervention (2 hrs)
    Elective Course
                                    2-3 hours
```

Thesis/Non-Thesis Project
$\qquad$

``` .0-4 hours
```

One option from the fllowing:
Option I: Thesis ..... 4 hours

```Fours hours from the following:
```

SOFD690/691/692 Thesis (1/2/3 hrs)
SOCL690/691/692 Thesis (1/2/3 hrs)

```0 hoursNon-thesis students must submit two essays dealing with a meth-odological, theoretical andlor practical problem in power, crime,conflict and cooperation within the schools that reflects the interests.of the student and readers.
```

Program Total 30 hours

## GRADUATE CERTIFICATE in Community Building (CBLD)

See page 35 for Interdisciplinary studies listings.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

[^12]
# Women's Studies 

Campus Address: 714 Pray-Harrold<br>Internet: www.emich.edu/public/wstudies/index.html<br>Telephone: 734.487.1177<br>E-mail: Ischott@emich.edu

See page 251 for course descriptions.

# MASTER OF LIBERAL STUDIES in Women's Studies (WMST) 

Objectives
The master of liberal studies in women's studies draws upon a range of courses in the Colleges of Arts and Sciences, Business, Education, Health and Human Services, and Technology. This highly flexible program fosters scholarly debate and develops research skills for students seeking employment in business, industry, government or the nonprofit sector. Persons already employed will find the program useful in their professional advancement. The interdisciplinary nature of the women's studies program allows students, in consultation with the graduate adviser, to create programs of study at variance with the course limitations.

## Admission Requirements

Graduate admission requirements:

1. A baccalaureate in any field;
2. Prior completion of at least two courses with substantial content on women and/or gender and a grade of $B$ or better;
3. A 2.75 undergraduate GPA overall, a 3.0 in the last-half cumulative undergraduate GPA, or a minimum 3.0 in graduate course work previously taken;
4. The applicant must write and submit a personal statement of no more than two pages, double-spaced. The personal statement must include the following: demonstrated proficiency in writing at the graduate level, an explanation of both academic and professional goals, a discussion of any prior professional and/or community-based experience related to women and/or gender and an explanation of how previous course work related to women and/or gender shaped the desire to pursue further study;
5. Two letters of recommendation addressing the candidate's preparation and ability to successfully complete graduate work. At least one letter must be from a former professor; and
6. For students whose first language is not English, demonstrated English Language proficiency as shown by official test scores on the International English Language Testing System-7, Test of English as a Foreign Language (TOEFL)-550, Test of Written English (TWE)-5, or Michigan English Language Assessment Battery (MELAB)-80.

## Conditional Admission

Students not meeting regular admission requirements may be admitted on a conditional basis with the approval of the program director.

## Non-Degree Admissions

Students not meeting the GPA requirement may be granted non-degree admission with the permission of the director of the program and the Graduate School.

## Degree Requirements

Students will develop competencies through core requirements, restricted electives and complementary concentrations.

## Course Requirements

Students should consult the director for other approved women's studies courses offered each semester. The M.L.S. in women's studies is distributed among core courses, restricted elective courses and complimentary concentration courses as follows:

Core Courses ....................................................................................... 12 hours WMST550 Feminist Thought (3 hrs)
WMST608 Colloquium: Research on Women's Issues (3 hrs) Capstone Experience ( 6 hrs ) Six hours from one of the three options:

Option I: WMST686/687/688/689 Practicum (1/2/3/4 hrs) Option II: WMST690/691/692 Thesis (1/2/3 hrs) Option III: WMST694/695/696 Final Project (1/2/3 hrs)
Restricted Elective Courses ........................................................... 6 hours
Six hours from the following:
ECON527 Women and the Economy in Comparative
Perspective (3 hrs)
ART436/WMST436 Women in Art (3 hrs)
HIST521 Studies in the History of Women in Europe (3 hrs)
HIST525/WMST525 Technology, Social Change, and the
Role of Women (3 hrs)
INDT420/WMST420 Women and Technology (3 hrs)
LITR443/WMST443 Women in Literature (3 hrs)
PSY542/WMST542 Women and Mental Health (2 hrs)
SOCL515/WMST515 Sociology of Women (3 hrs)
SOFD570 Women and Pedagogy: Life Histories (3 hrs)
SOFD581/WMST581 Gender and Education (3 hrs)
SWRK413 Women and Aging (3 hrs)
SWRK528 Practice with Women (2 hrs)
INDT520/WMST521 Women and Technology (3 hrs)
WMST530 Women and Film (3 hrs)
WMST560 Domestic Violence and Sexual Assault (3 hrs)
WMST575 Theories of Sexuality (3 hrs)
WMST626 Topics in Feminist Philosophy (3 hrs)
WMST590/591/592 Special Topics (1/2/3 hrs)
WMST697/698/699 Independent Study (1/2/3 hrs)
Additional courses selected in consultation with the adviser

Complementary Concentration Courses ................................... 12 hours Students must select two or more complementary concentrations in other fields. A minimum of four hours is required in each of the complementary areas of study ( 12 hours total required). Students must consult with the women's studies director or the women's studies adviser for specific courses in each area that are approved for women's studies credit.
Possible complementary concentrations:
Communication and Theatre Arts
Economics
Educational Leadership
Educational Psychology
English Language and Literature
Gerontology
Counseling
History
Management
Philosophy
Political Science
Psychology
Social Foundations of Education
Social Work
Sociology
Program Total 30 hours

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

LITR443/WMST443 Women in Literature (3 hrs)
SWRK413 Women and Aging (3 hrs)
WMST479 Special Topics (3 hrs)

## COLLEGE OF BUSINESS

Dean:<br>David Mielke<br>473 Owen Building<br>734.487.4140

Associate Dean:
Denise Tanguay
473 Owen Building
734.487.4140

Assistant Dean:
Amelia Chan
401 Owen Building
734.487.2344

## Assistant Dean:

Steven Hoskins
404 Owen Building
734.487.4444

Departments and Programs

- Accounting and Finance
- Computer Information Systems
- Management
- Marketing


## Mission Statement

To support the economic development of southeast Michigan by preparing graduates to perform effectively in an "information age" business environment that is being shaped by a global economy and by helping business leaders understand and address the forces shaping their environments as they create and recreate business.

The primary focus of the college is on teaching. Faculty research is fundamentally applied in nature. Professional service is directed towards the needs of the region and the professional communities that sustain the faculty.

The College of Business is AACSB accredited and offers four graduate degree programs: master of business administration (MBA), designed to give students a broad understanding of the business function; master of science in accounting (M.S.A.), designed to provide students an in-depth understanding of the theoretical and practical concepts of accounting; master of science in computer-based information systems (M.S.I.S.), designed to enable students to design, develop, implement and control computer-based information systems; and master of science in human resource/organizational development (M.S. HR/OD), designed to train students as human resource managers and organization development specialists. These programs are intended to provide the professional education needed in business, industry and public or government service positions. The college also offers graduate certificates in business and areas of specialization.

The time required to complete a business master's degree program or certificate depends upon the undergraduate preparation of the student. Graduate courses in business are primarily offered in the evening (MondayThursday). To provide greater flexibility for our students, the College of Business also offers the required MBA courses on Saturdays.

The Gary M. Owen Building, home of the College of Business, opened in 1990 and provides multipurpose classrooms and computer labs for students enrolled in business courses. Classrooms are multimedia capable as are the large lecture halls.

Further information is available by visiting www.cob.emich.edu.

## Graduate Degrees and Certificate Programs

The college offers the following graduate degrees and graduate certificate programs in the various disciplines of business. Admission and degree requirements for each of the programs can be found in the departmental sections of this catalog.

## Business Administration

MASTER OF BUSINESS ADMINISTRATION (General) MASTER OF BUSINESS ADMINISTRATION in an area of specialization:

Computer Information Systems
E-Business
Entrepreneurship
Finance
Human Resource Management
International Business
Nonprofit Management
Supply Chain Management
GRADUATE CERTIFICATE in Business Administration GRADUATE CERTIFICATE in an area of specialization:

[^13]
## Accounting and Finance

MASTER OF SCIENCE in Accounting
BACHELOR-MASTER'S in Accounting ( 150 hour program)
GRADUATE CERTIFICATE in Community Building
GRADUATE CERTIFICATE in Nonprofit Management
GRADUATE CERTIFICATE in Public Budget Management

## Computer Information Systems

MASTER OF SCIENCE in Information Systems

## Management

PROFESSIONAL MASTER OF SCIENCE in Bioinformatics
MASTER OF SCIENCE in Human Resources and Organizational Development
GRADUATE CERTIFICATE in Public Personnel Management
GRADUATE CERTIFICATE in Bioinformatics
GRADUATE CERTIFICATE in Community Building
GRADUATE CERTIFICATE in Nonprofit Management

## Marketing

GRADUATE CERTIFICATE in Community Building
GRADUATE CERTIFICATE in Nonprofit Management

## Graduate Programs in Business

## Admission Requirements

The admission policies herein are for the College of Business. Applicants must also meet the requirements for admission established by the Graduate School. Applicants should check the Graduate School to determine specific admission requirements and application deadline dates.

Admission to graduate degree programs in the College of Business is limited to students showing promise of success by reason of their undergraduate GPA (overall or in the last half of the undergraduate study), and performance on the Graduate Management Admission Test.* Applicants with GMAT scores more than five years old should check with the coordinator of graduate business programs to determine if a new test score will need to be reported for admission consideration.

The college may admit candidates who have not yet taken the GMAT on a non-degree basis. Such candidates must meet the GPA required for the particular program, take foundation courses only and achieve the required GMAT score within one year of admission. This does not apply for international students on an F-1 student visa. The GMAT is not required for admission to the certificate program.

International students should also refer to the Graduate School section of this catalog for admission requirements. Applicants whose native language is not English must demonstrate proficiency in the English language by submitting scores from the Test of English as a Foreign Language (TOEFL). Please refer to general admissions requirements for EMU Graduate school for the minimum scores needed.

Those with TOEFL or MELAB scores below Graduate School minimums must take a placement test administered by Eastern Michigan University Foreign Languages and Bilingual Studies Department and take ESL courses, as specified by that department, in their first semester of enrollment.

## Note:

*The GMAT is offered three weeks per month, six days per week, throughout the year at approximately 400 computer-based testing centers. Call 800.GMATNOW for information or to schedule an appointment.

## Foundation/Prerequisite Requirement

Each business master's program has a required common body of knowledge that each student must complete before enrolling in core-level graduate courses. A series of 500 -level foundation courses covers most common subjects. Introductory courses, open to all graduate students, do not count toward core-level requirements in any graduate business program.

Once admitted into a graduate business program, students lacking basic course work must take foundation courses first. These may be waived for students who have completed equivalent work with a C or better at an approved accredited undergraduate institution.

## Upper-Level Core Requirements

Upper-level core courses, both required and elective ( 515 and above), provide the 30 to 39 hours of advanced course work for the graduate degree. They are reserved for graduate business program students who have completed all foundation/prerequisite requirements and those admitted to upper-level graduate candidacy by the Graduate Business Programs Office.

Non-business graduate students must have permission from the coordinator of graduate business programs to enroll in 600 -level business courses.

## Degree Requirements

Graduate business students must complete all foundation/prerequisite and upper-level core requirements for their specific program, with a combined GPA of at least 3.0 (B). They must also maintain a 3.0 GPA in required up-per-level core courses, electives not included. Core-level courses completed satisfactorily ( B or better) from seven to 10 years prior to graduation may be applied only if validated by examination. A maximum of six hours of corelevel courses from other institutions may be transferred if they:

1. Are determined to be equivalent to the courses to be waived;
2. Were taken at an AACSB-accredited institution; and
3. Were passed with a grade of $B$ or better.

## Dismissal from Program Policies

Graduate students with a GPA below 3.0 (B) may be dismissed from the program if, after two semesters of enrollment, they have not restored their GPA to 3.0 (B).

Graduate students may be dismissed from a graduate business program if they receive more than two grades below B- (2.7) in any of the required foundation and core courses. Should a student repeat a course, the repeated grade will be the grade of record.

## Conditional Admission (Academic Deficiency Condition)

Students holding non-degree status must have permission to enroll in undergraduate or graduate business courses.

## Guest Status

Guest students who wish to transfer courses to another institution's graduate program must meet the standards for degree admission and have permission to enroll in business courses.

## MASTER OF BUSINESS ADMINISTRATION (MBA)-General

## MASTER OF BUSINESS ADMINISTRATION (MBA)- Area of Specialization

## Objectives

The MBA program seeks to develop business competencies necessary to design and implement strategies to improve overall organization results. These competencies are developed from a cross-functional, general management perspective, taking into consideration the ethical and international issues of the business environment. The MBA program seeks to expand competencies in problem analysis and resolution, team management, performance management, communication and interpersonal skills, and project management. Students may choose a general degree or a 9-15-hour area of specialization to develop more in-depth managerial competencies in a specific functional or cross-functional area.

## Admission Requirements

Applicants must be graduates of regionally accredited colleges and universities, and have achieved grades and GMAT scores indicating an aptitude for advanced study in business.

## Degree Admission

The standards for degree admission are a 2.5 minimum undergraduate GPA (or 2.75 for the last half of undergraduate study) and a GMAT score of at least 450 .

## Conditional Admission

Conditional admission may be granted to students whose undergraduate GPA or GMAT score is lower than the graduate business school normally considers acceptable, but who show promise of success in the program by other means. For questions about conditional admissions, please contact the assistant dean. Such students must maintain a B (3.0) average in foundation courses and the first 12 hours of adviser-approved upper-level core courses. They must have an appropriate adviser's permission to enroll in foundation and core-level courses. Students who meet the probationary requirements will be granted regular admission.

## Program Requirements

The MBA curriculum is based on a model of competencies employers expect of our MBA graduates. Competencies are developed in the program in four stages: foundation, core skills, cross-functional core and capstone. Students are expected to complete each stage before proceeding to the next stage. Elective courses may be taken at any time during the program as long as prerequisites are met.

## Pre-enrollment Competencies

Students are expected to possess the following competencies prior to enrollment in MBA courses. See the Graduate Business Advising Office for a list of options for acquiring these competencies, including credit courses, noncredit courses and self-study.

Written and Oral Communication Skills: Students should be able to express ideas clearly, concisely and persuasively in both written and oral business communication using appropriate software tools.

Interpersonal Communication Skills: Students should be able to listen effectively, appreciate and respect diverse perspectives.

High School Algebra, Descriptive Statistics, Elementary Probability Concepts: Students should be able to apply basic mathematics (percentages, graphs, equations) to business problems. They should be familiar with measures of central tendency, dispersion, histograms and basic probability concepts (joint, marginal, conditional probability, independence).

Basic Software Skills: Students should be proficient in using software (word processing, spreadsheet and presentation), possess expertise in electronic mail and file transfer, and be familiar with accessing the Internet and specialized database resources.

## Foundation <br> 21 hours

 Students must complete course work in each of the following foundation areas or have acceptable undergraduate equivalents, in which case the course may be waived. These courses are prerequisites for the core-skill classes, though students may take selected classes as corequisites to complete a full schedule of classes.ACC501 Accounting Principles (3 hrs) (Prerequisite for FIN502)
ECON500 Foundations of Economics Analysis (3 hrs) (Prerequisite for FIN502 and MKTG510)
FIN502 Financial Principles (3 hrs)
LAW503 Legal Principles, Forms of Enterprise and Business Ethics (3 hrs)
MGMT505 Organizational Behavior and Business Communication (formerly MGMT605) (3 hrs)
MKTG510 Marketing Management (3 hrs)
POM503 Production/Operations Management (3 hrs)
LAW503 may be taken concurrently with DS602 or MGMT600. POM503 may be taken concurrently with MGMT600 or MGMT604.

## Core MBA Skills Courses

$\qquad$ .12 hours
Students are required to take the following set of core-skill courses before continuing to the cross-functional core courses.

DS602 Business Research Methods (3 hrs)
IS605 Managing Information Technology (3 hrs)
MGMT600 Management Skills (3 hrs)
MGMT604 Strategic Communication and Ethical Decision Making (3 hrs)

IS605 may be taken concurrently with cross-functional core courses (ACC605, DS605, FIN620 or MKTG610) to complete a student's full schedule of classes.

Cross-Functional Core Courses $\qquad$ .12 hours This second set of required courses builds on the knowledge developed in the foundation courses and the skills developed in the core skills courses.

ACC605 Strategic Information and Control Systems (3 hrs)
DS605 Economics of Strategy (3 hrs)
FIN620 Financial Administration Policies (3 hrs)
MKTG610 Marketing Policies and Problems (3 hrs)
Students should complete cross-functional core classes before registering for the capstone class, though DS605 may be taken concurrently with MGMT696 to complete a student's full schedule of classes.

Capstone Course 3 hours
The purpose of the required capstone course is to integrate and assess student competencies developed throughout the program, in the context of strategic management.

MGMT696 Strategic Management (3 hrs)
Elective Courses for General MBA $\qquad$ . .9 hours Students may select from 500- and 600-level courses in any of the four College of Business departments (Accounting and Finance, Computer Information Systems, Management, Marketing) excluding 500-level foundation courses. Elective courses may be taken at any time during the program as long as prerequisites are met. No more than six hours may be earned as special topics courses. Up to six hours of business-related graduate credit may be taken outside the College of Business with adviser approval.

Elective Courses for MBA with Specialization in an area ........9-15 hours Students may develop more in-depth competency in specialized areas of business by pursuing the MBA with specialization in one of eight areas. Select from the courses listed below under the appropriate area of specialization.
Total With Foundation Requirements. $\qquad$ . 57-63 hours
Total With All Foundation Requirements Waived. $\qquad$ 36-42 hours

## Elective Courses for MBA with Specialization in an Area

Specializations are offered in the eight areas listed below. The area of specialization is noted on the student's transcript. The assistant dean or department heads must approve any course substitutions. These specialization options have program codes associated with them that differ from the general MBA. Therefore students wishing to change from one program to another (e.g., general MBA to MBA in Supply Chain Management or vice versa) must submit a program transfer form to the Graduate Business Program Office so that a new program of study can be issued.

Specializations offered:
Computer Information Systems
E-Business
Entrepreneurship
Finance
Human Resource Management
International Business
Nonprofit Management
Supply Chain Management

Computer Information Systems (IS) ( 15 hours)
IS614 Systems Analysis and Design (3 hrs)
IS616 Management of Information Systems Resources (3 hrs)
IS620 Data Communication and Networks (3 hrs)
IS645 Database Management Systems (3 hrs)
IS696 Systems Development Projects (3 hrs)
E-Business (EBUS) (12 hours)
MKTG530 E-Commerce Essentials (3 hrs)
Three courses from the following:
ACC610 Enterprise Systems (3 hrs)
ACC611 Accounting for E-Commerce (3 hrs)
LAW525 E-Commerce Law (3 hrs)
MGMT611 Human Resources and Technology (3 hrs)
MGMT656 E-Business Strategy (3 hrs)
MKTG635 Internet Marketing (3 hrs)
MKTG645 Database Marketing (3 hrs)
SCM611 Supply Chain Management (3 hrs)
SCM614 Information Technology for Supply Chain Management (3 hrs)
SCM622 Customer Relationship Management in the Supply Chain (3 hrs)

Entrepreneurship (ENTR) (9 hours)
MGMT570 New Venture Creation (3 hrs)
MGMT614 Growth Strategies for Entrepreneurial Ventures (3 hrs)
One course from the following:
MGMT603 Corporate Entrepreneurship: Innovation and Technology Commercialization (3 hrs)
MGMT636 Current Topics in Entrepreneurship (3 hrs)
MGMT660 Field Studies in Entrepreneurship (3 hrs)
Finance (FIN) ( 15 hours)
FIN540 International Finance (3 hrs)
FIN615 Financial Markets and Institutions (3 hrs)
FIN625 Securities Analysis (3 hrs)
FIN660 Advanced Financial Management (3 hrs)
FIN670 Risk Management with Derivatives (3 hrs)
Human Resource Management (HR) ( 12 hours)
MGMT509 Human Resource Management (formerly MGMT609) (3 hrs)
Three courses from the following:
MGMT618 Staffing Organizations (3 hrs)
MGMT620 Compensation Management (3 hrs)
MGMT625 Management in Unionized Settings (3 hrs)
MGMT628 Human Resource Development (3 hrs)
International Business (INB) ( 15 hours)
ACC675 International Accounting and Taxation (3 hrs)
FIN540 International Finance ( 3 hrs )
MGMT550 International Management (3 hrs)
MKTG520 International Business (3 hrs)
One course from the following:
ECON508 International Trade ( 3 hrs )
ECON509 International Monetary Economics (3 hrs)
ECON699 Independent Study (3 hrs)
MKTG525 Global Marketing (3 hrs)
Nonprofit Management (NPMG) (11-12 hours)
ACC646 Financial Management of Nonprofit Organizations (3 hrs)
LAW603 Legal, Governance and Fundraising Issues in Nonprofit Organizations (3 hrs)
One course from the following:
MGMT509 Human Resource Management (3 hrs)
MGMT628 Human Resource Development (3 hrs)
One course from the following:
SWRK694 Community Action Seminar (2 hrs)
SWRK662 Grant Writing and Resource Development (3 hrs)
PLSC645 Intergovernmental Relations (3 hrs)

Supply Chain Management (SCMG) ( 15 hours)<br>SCM611 Supply Chain Management (3 hrs)<br>SCM614 Information Technology for Supply Chain<br>Management (3 hrs)<br>SCM618 Logistics in the Supply Chain (3 hrs)<br>Two courses from the following:<br>SCM622 Customer Relationship Management/Marketing in the Supply Chain (3 hrs)<br>COT620 Integrated Product and Process Design (3 hrs)<br>SCM624 Supply Chain Operations Planning and Scheduling (3 hrs)<br>SCM628 Purchasing, Outsourcing and Quality (3 hrs)

## GRADUATE CERTIFICATE in Business Administration (BA)

This program enables individuals without undergraduate business degrees to gain business knowledge for personal or career advancement in the basic functional business disciplines. Students with previous equivalent undergraduate course work may be waived from up to nine hours.

```
Certificate Requirements.
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``` .21 hours
ACC501 Accounting Principles (3 hrs) (Prerequisite for FIN502)
ECON500 Foundations of Economic Analysis (3 hrs) (Prerequisite for FIN502 and MKTG510)
FIN502 Financial Principles (3 hrs)
LAW503 Legal Principles, Forms of Enterprise and Business Ethics (3 hrs)
MGMT505 Organizational Behavior and Business Communication (formerly MGMT605) (3 hrs)
MKTG510 Marketing Management (3 hrs)
POM503 Production/Operations Management (3 hrs)
```

Certificate Total.
21 hours

## GRADUATE CERTIFICATE in Area of Specialization

Admission to the graduate certificate program is limited to students who have completed a bachelor's degree from an accredited institution of higher education with a minimum grade point average of 2.5 (on a 4.0 scale). The GMAT is not required for the Graduate Certificate Programs.

Accounting-Taxation (TAX)
ACC544 Taxation of Entities (3 hrs)
ACC585 Business Tax Planning ( 3 hrs )
ACC644 Tax Research Methods, Practice and Problems (3 hrs)
ACC672 Investment and Tax Financial Planning (3 hrs)
ACC675 International Accounting and Taxation (3 hrs)
Accounting-Financial and Operation Controls (AFO)
ACC548 Information Systems Audit and Control (3 hrs)
ACC605 Strategic Information and Control Systems (3 hrs)
ACC610 Enterprise Systems (3 hrs)
ACC642 Strategic Cost Management (3 hrs)
ACC650 Internal Auditing (3 hrs)
Computer Information Systems (IS)
IS614 Systems Analysis and Design (3 hrs)
IS616 Management of Information Systems Resources (3 hrs)
IS620 Data Communication and Networks (3 hrs)
IS645 Database Management Systems (3 hrs)
IS696 Systems Development Projects (3 hrs)

```
E-Business (EBUS)
    MKTG530 E-Commerce Essentials (3 hrs)
    One course from the following:
        SCM614 Information Technology for Supply Chain
            Management (3 hrs)
            IS605 Managing Information Technology (3 hrs)
    Three courses from the following:
            ACC610 Enterprise Systems (3 hrs)
            ACC611 Accounting for E-Commerce (3 hrs)
            *IS605 Managing Information Technology (3 hrs)
            LAW525 E-Commerce Law (3 hrs)
            MGMT611 Human Resources and Technology (3 hrs)
            MGMT656 E-Business Strategy (3 hrs)
            MKTG635 Internet Marketing (3 hrs)
            MKTG645 Database Marketing (3 hrs)
            SCM611 Supply Chain Management (3 hrs)
            *SCM614 Information Technology for Supply Chain
                Management (3 hrs)
            SCM622 Customer Relationship Management in the Supply
                Chain (3 hrs)
Note:
*May only be chosen as one of the three elective courses if not chosen above.
Entrepreneurship (ENTR)
    MGMT570 New Venture Creation (3 hrs)
    MGMT614 Growth Strategies for Entrepreneurial Ventures (3 hrs)
    Two courses from the following:
            MGMT603 Corporate Entrepreneurship: Innovation and
                Technology Commercialization (3 hrs)
            MGMT636 Current Topics in Entrepreneurship (3 hrs)
            MGMT660 Field Studies in Entrepreneurship (3 hrs)
    One course from the following:
            ACC501 Accounting Principles (3 hrs)
            LAW503 Legal Principles, Forms of Enterprise and Business
                Ethics (3 hrs)
            MGMT509 Human Resource Management (formerly
                MGMT609)(3 hrs)
            MGMT600 Management Skills (3 hrs)
Finance (FIN)
    FIN540 International Finance (3 hrs)
    FIN615 Financial Markets and Institutions (3 hrs)
    FIN620 Financial Administration Policies (3 hrs)
    FIN625 Securities Analysis (3 hrs)
    FIN660 Advanced Financial Management (3 hrs)
Human Resource Management (HR)
    MGMT505 Organizational Behavior and Business Communication
            (formerly MGMT605) (3 hrs)
    MGMT509 Human Resource Management (formerly
            MGMT609) (3 hrs)
    Three courses from the following:
        MGMT618 Staffing Organizations (3 hrs)
        MGMT620 Compensation Management (3 hrs)
            MGMT625 Management in Unionized Settings (3 hrs)
            MGMT628 Human Resource Development (3 hrs)
Marketing Management (MKTG)
    Five courses from the following:
        MKTG520 International Business (3 hrs)
            MKTG592 Special Topics (3 hrs)
            MKTG620 Consumer Satisfaction (3 hrs)
            MKTG630 Sales Operation Management (3 hrs)
            MKTG640 Promotions Management (3 hrs)
            MKTG650 Channels of Distribution and Logistics (3 hrs)
            MKTG665 Seminar in Consumer Behavior (3 hrs)
            MKTG670 Advanced Methods in Marketing Research (3 hrs)
            MKTG675 Market Planning and Forecasting (3 hrs)
            MKTG681 Special Topics (3 hrs)
            MKTG699 Independent Study (3 hrs)
```

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Organizational Development (OD)
    MGMT602 Theory and Techniques of Organizational
        Development (3 hrs)
    MGMT610 Diagnostic and Quantitative Methods in
        Organizations (3 hrs)
    Three courses from the following:
        MGMT615 Organization Design and Strategy (3 hrs)
        MGMT628 Human Resource Development (3 hrs)
        MGMT638 Building Continuous Improvement Teams (3 hrs)
        MGMT648 Communication and Organizational Devel-
            opment (3 hrs)
Supply Chain Management (SCMG)
    SCM611 Supply Chain Management (3 hrs)
    SCM614 Information Technology for Supply Chain
        Management (3 hrs)
    SCM618 Logistics in the Supply Chain (3 hrs)
    Two courses from the following:
        SCM622 Customer Relationship Management/Marketing in
                the Supply Chain (3 hrs)
        COT620 Integrated Product and Process Design (3 hrs)
        SCM624 Supply Chain Operations Planning and
            Scheduling (3 hrs)
        SCM628 Purchasing, Outsourcing and Quality (3 hrs)
```

Certificate Total
$\qquad$

# Department of Accounting and Finance 

Campus Address: 406 Gary M. Owen Building<br>Internet: www.accfin.emich.edu<br>Telephone: 734.487.3320<br>E-mail: susan.kattelus@emich.edu

See pages 169, 191, and 203 for course descriptions.

## MASTER OF SCIENCE in <br> Accounting (M.S.A.) (ACC)

The M.S.A. program provides a balanced broad education and in-depth understanding of the theoretical and practical concepts of accounting. There are several areas of concentration available and students are given the opportunity to relate accounting topics to other disciplines, as they develop the broad base of knowledge necessary to create, use and audit accounting information systems. The M.S.A. program meets American Institute of CPA's recommendations and Michigan State Board of Accountancy requirements, if appropriate electives are chosen.

## Admission Requirements

## Degree Admission

Previous academic performance, written statement of personal goals, and GMAT score are significant factors considered by the M.S.A. director in the admission process. Generally, as a minimum, the applicant must have an overall undergraduate GPA of 3.0 (on a 4.0 scale) and a GMAT score of 500 or above.

## Conditional Admission

Conditional admission also is possible for otherwise promising applicants who do not meet the GPA/GMAT criteria for regular admission. Such applicants should contact the M.S.A. director of the Accounting Department.

## Program Requirements

## Program Design

Upon admission to the M.S.A. program, each student must prepare a program of study. The program is reviewed with the student by the M.S.A. adviser to ascertain that it is appropriate to the student's background and career goals. The program of study becomes the student's degree requirement when accepted by the student and the M.S.A. adviser. Subsequent changes in course work must be approved by the M.S.A. faculty adviser.

## Course Requirements

Foundation/Prerequisite Courses. $\qquad$ 18 hours Students must complete course work in each of the following foundation areas unless they have satisfactorily completed the undergraduate equivalent.

> ECON500 Economics: Principles and Institutions (3 hrs)
> ACC340 Intermediate Accounting (3 hrs)
> ACC356 Accounting Information Systems (3 hrs)
> ACC501 Accounting Principles (3 hrs)
> One course from the following:
> DS265 Business Statistics I (3 hrs)
> MATH504 Mathematics and Statistics for MBAs (3 hrs)
> One course from the following:
> ACC342 Managerial Cost Accounting ( 3 hrs )
> ACC605 Strategic Information and Control Systems (3 hrs)

Core Courses ........................................................................... 30 hours
The M.S.A. program requires the completion of 30 hours of course work to be distributed among required core courses and restricted elective courses, as follows:
Required Core Courses 12 hoursACC544 Taxation of Entities (3 hrs)ACC567 Professional Auditing (3 hrs)One course from the following:
ACC696 Accounting Theory, Research and Policy (3 hrs)ACC656 Accounting, Information Technology andResearch (for the AIS track) ( 3 hrs )
$\ddagger$ Restricted Electives (tracks) ..... 9 hours
AIS:ACC548 Information Systems Audit and Control (3 hrs)
ACC610 Enterprise Systems (3 hrs)
ACC611 Accounting for e-commerce (3 hrs)
Internal Auditing:
ACC650 Internal Auditing (3 hrs)
ACC642 Strategic Cost Management (SCM) (3 hrs)
ACC548 Information Systems Audit and Control (3 hrs)
Tax and Financial Planning:
ACC585 Business Tax Planning (3 hrs)
ACC672 Investment and Tax Financial Planning (3 hrs)
ACC644 Tax Research Methods, Practice and Problems (3 hrs)
Financial and Professional Services:
ACC541 Advanced Financial Accounting (3 hrs)
$\dagger$ ACC546 Public and Nonprofit Sector Accounting (3 hrs)ACC611 Accounting for e-commerce (3 hrs)
Other Accounting Courses:
ACC590/591/592 Special Topics (1/2/3 hrs)
ACC646 Financial Management of NonprofitOrganizations (3 hrs)

ACC675 International Accounting and Taxation (3 hrs)
ACC679/680/681 Special Topics (1/2/3 hrs)
ACC697/698/699 Independent Study (1/2/3 hrs)
College of Business Electives (Non-ACC) 9 hours
Select nine hours within the College of Business.
Program Total $\qquad$ 30 hours

## Note:

*Students having equivalent courses may be required to substitute other courses in the areas of accounting, finance, information systems, management and marketing, as determined by the M.S.A. directorladviser.
†Students planning to take the CPA examination must elect ACC546 and satisfy the state's general business requirement.
$\ddagger$ You do not have to choose a track.

## COMBINED BACHELORMASTER'S DEGREE in Accounting (B.B.A.-M.S.A.) (ACC)

## Admission Requirements

Following are the minimal standards for the combined B.B.A and M.S.A. degree program in accounting. Generally, each item should be satisfied, though the candidate's overall record is considered. Transfer credits and grades will be evaluated in terms of Eastern Michigan University equivalency.

Initial admission is dependent on:

1. Completion of 90 hours of undergraduate course work including College of Business requirements, General Education requirements and ACC340 Intermediate Accounting;
2. A cumulative GPA of 3.0 on a 4.0 scale;
3. The candidate's written statement of personal goals; and
4. An interview with the program adviser.

Admission to the graduate level requires:

1. Completion of 120 hours of undergraduate course work including course content noted under initial admission above and the undergraduate components (i.e., required and restricted electives);
2. A GMAT score of 500 (must be taken during the fourth year, so that the candidate's score is received before admission to the fifth year); and
3. Completed application and payment of fee to the Graduate School.

For degree requirements of the bachelor-master's degree in accounting, students must meet with the director of graduate business programs. 734.487.4444.

## GRADUATE CERTIFICATE in Community Building (CBLD)

See page 35 for Interdisciplinary studies listings.
GRADUATE CERTIFICATE in Nonprofit Management (NPMG)
See page 35 for Interdisciplinary studies listings.

# GRADUATE CERTIFICATE in Public Budget Management (PBM) 

See page 35 for Interdisciplinary studies listings.

## Department of Computer Information Systems

Campus Address: 412 Gary M. Owen Building<br>Internet: www.cis.emich.edu<br>Telephone: 734.487.2454<br>E-mail: hung-lian.tang@emich.edu

See pages 216 and 233 for course descriptions.

## MASTER OF SCIENCE in Computer Information Systems (IS)

The M.S.I.S. program is designed for students seeking a solid background in systems analysis and design, database management systems, information technology management, data communications and information systems application development. The emphasis is on the development and utilization of information systems in business.

## Program Advising

For advising and additional program information, contact:

## Badie Farah, Coordinator of Advising

508 Gary M. Owen Building
734.487.1098

## Admission Requirements

Admission is granted to graduates of regionally accredited colleges and universities whose grades and GMAT scores indicate an aptitude for advanced study in computer information systems.

## Degree Admission

Degree admission requires a GMAT score of 450 or higher and an undergraduate GPA of either 2.75 overall or 3.0 for the last half of undergraduate study.

## Conditional Admission

Students with an undergraduate GPA above 2.5 but below 2.75 may qualify for conditional admission. Such students must maintain a B (3.0) average in foundation and the first 12 hours of adviser-approved core courses. Students who meet the probationary requirements will be granted regular admission.

## Course Requirements

Students are required to complete 18 hours or the equivalent in foundation courses and 30 hours in core, tracks, electives, capstone or thesis courses (as described below) to complete the M.S.I.S. degree.

Foundation/Prerequisite Courses.
18 hours Students must complete course work in each of the following foundation areas. Foundation requirements are met by completing the three required IS foundation courses and three business foundation courses.

Foundation courses completed as an undergraduate student may be applied if deemed equivalent and completed with a grade of C or better. Waivers for courses taken subsequent to earning a bachelor's degree will be granted only if the course is equivalent to the one being waived was taken at a regionally accredited four-year institution and was completed with a B or better.

| Required IS Foundation Courses | h hours |
| :--- | :---: |
| IS502 Business Information Systems (3 hrs) |  |
| IS510 Introduction to Object-Oriented Programming (3 hrs) |  |
| IS520 Hardware and Software (3 hrs) | 9hours |
| Business Foundation Courses |  |
| ACC501 Accounting Principles (3 hrs) |  |
| FIN502 Financial Principles (3 hrs) |  |
| MGMT505 Organizational Behavior and Business |  |
| Communication (3 hrs) |  |

IS Core Courses. $\qquad$ 15 hours
IS606 Web Application Development (3 hrs)
IS614 Systems Analysis and Design (3 hrs)
IS620 Data Communications and Networks (3 hrs)
IS625 Information Systems Project Management (3 hrs)
IS645 Database Management Systems (3 hrs)
Track............................................................................................... 9 hours
Select one of two tracks:
Track I: IS Application Development
IS610 Advanced Programming (3 hrs)
IS624 Web Servers and Systems Software (3 hrs)
IS660 eBusiness Application Development (3 hrs)
Track II: Information Technology Management
IS616 Management of Information Systems Resources (3 hrs)
IS622 Information Systems Consulting (3 hrs)
IS632 Global Dimensions of Information Technology (3 hrs)

Thesis Plan/Non-Thesis Plan.
6 hours
Select one of the following options:
Option I:
IS696 Systems Development Projects (3 hrs)
One course from the following:
IS650 Enterprise Resource Planning (3 hrs)
IS655 Decision Support Systems (3 hrs).
IS665 Data Warehousing and Data Mining (3 hrs)
IS670 XML Technologies (3 hrs)
IS697/698/699 Independent Study (1/2/3 hrs)
IS695 Seminar (3 hrs)
Option II:
IS690/691/692 Master's Thesis in Information
Systems ( 6 hrs)
Program Total
48 hours

## Department of Management

Campus Address: 466 Gary M. Owen Building Internet: www.mgt.emich.edu
Telephone: 734.487.3240
E-mail: fwagnerm@emich.edu
See page 223 for course descriptions.

## PROFESSIONAL MASTER OF SCIENCE in Bioinformatics (BINF)

See page 35 for Interdisciplinary studies listings.

## MASTER OF SCIENCE in Human Resource Management and Organizational Development (HROD)

Objectives

1. To train students to plan, implement and manage change processes, whether working within an organization (managerial or staff support) or as external consultants.
2. To equip students to match organizational with human resource needs and to implement systems related to structure, process and human resources.
3. To enable students to understand and apply human resource and organizational development techniques.
4. To familiarize students with the interrelationships between the fields of human resource management and organizational development, and with ways to use each field to improve the other.
5. To contribute to the knowledge base of behavioral and organizational theory and practice.

## Admission Requirements

Degree Admission
Criteria for degree admission include:

1. GPA Requirement:
a. An overall undergraduate GPA of at least 2.75 (on a 4.0 scale); or b. A GPA of at least 3.0 for the last half of undergraduate study; or
c. A GPA of at least 3.5 in a completed master's degree program.
2. GMAT Requirement: 450 or higher.

## Conditional Admission

Conditional admission may be granted to students who do not meet the above requirements, provided their GMAT score is at least 410. Such students must maintain a B (3.0) average in foundation courses and the first 12 hours of adviser-approved core courses. Students who meet the conditional requirements will be granted regular admission. Conditionally admitted students must have an adviser's permission to enroll in courses.

## Course Requirements

Foundation/Prerequisite Courses. $\qquad$ 15 hours
Nine hours of graduate or undergraduate non-management courses spread across three business functional areas (marketing, law, economics, account-
ing, finance). One three-hour course must be either an accounting or a finance course.
DS501 Introductory Probability and Statistics for Business (3 hrs) or an undergraduate statistics course
IS502 Business Information Systems ( 3 hrs ) or an undergraduate computer course or demonstrated proficiency in using computer applications including Word, Power Point and Excel/Lotus spreadsheets.

Required Courses. $\qquad$ 18-21 hours
*MGMT505 Organizational Behavior and Business Communication (formerly MGMT605) (3 hrs)
$\dagger$ MGMT509 Human Resource Management (formerly MGMT609) (3 hrs)
MGMT602 Theory and Techniques of Organizational Development (3 hrs)
MGMT610 Diagnostic and Quantitative Methods in Organizations (3 hrs)
MGMT628 Human Resource Development (3 hrs)
Three hours of practicum or three to six hours of thesis: MGMT688 Practicum in Human Resource Management/

Organizational Development (3 hrs)
$\ddagger$ MGMT690/691/692 Thesis in Organizational Development ( $1 / 2 / 3 \mathrm{hrs}$ )

Elective Courses.
.9-12 hours
Nine to 12 hours from the following: MGMT611 HR and Technology (3 hrs) MGMT613 Leadership in Business Organizations: Theory and Practice ( 3 hrs ) MGMT615 Organization Design and Strategy (3 hrs) MGMT618 Staffing Organizations (3 hrs) MGMT620 Compensation Management (3 hrs) MGMT625 Management in Unionized Settings (3 hrs) MGMT638 Building Continuous Improvement Teams (3 hrs) MGMT648 Communication and Organizational Development (3 hrs) MGMT696 Strategic Management (3 hrs) Or other adviser-approved electives

Program Total 30 hours

Note:
*Students with an undergraduate course in organizational theory and behavior may be required to substitute an elective for MGMT505 Organizational Behavior and Business Communication.
tStudents with an undergraduate course in human resources management/ personnel administration or equivalent may be required to substitute an elective for MGMT509 Human Resource Management.
$\ddagger$ Students who elect the six-hour thesis in place of the practicum will take only nine hours of electives.

GRADUATE CERTIFICATE in Public Personnel Management (PBM)

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE in Community Building (CBLD)

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE in Nonprofit Management (NPMG)

See page 35 for Interdisciplinary studies listings.

## Undergraduate Courses for Graduate Credit

The following course may be elected for graduate credit; its course description may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in the following undergraduate course for graduate credit, you must submit a request form to the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

MGMT490 Business Policy (3 hrs)

## Department of Marketing

Campus Address: 469 Gary M. Owen Building Internet: www.mkt.emich.edu Telephone: 734.487.3323 E-mail: paul.chao@emich.edu

See pages 218, 225, and 238 for course descriptions.

## GRADUATE CERTIFICATE in Community Building (CBLD)

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE in Nonprofit Management (NPMG)

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE in Bioinformatics (BINF)

See page 35 for Interdisciplinary studies listings.

## Undergraduate Courses for Graduate Credit

The following course may be elected for graduate credit; its course description may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in the following undergraduate course for graduate credit, you must submit a request form to the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

MKTG474 Promotion Strategy (3 hrs)

## COLLEGE OF EDUCATION

Dean:
Alane J. Starko, Interim
310 John W. Porter Building
734.487.1414

Associate Dean:
Michael Bretting
310 John W. Porter Building
734.487.0496

Associate Dean:
Virginia Harder
206 John W. Porter Building
734.487.1416

Departments and Programs

- Leadership and Counseling
- Special Education
- Teacher Education


## Mission Statement

To create an exemplary educational environment to develop the intellectual curiosity, creativity, critical and reflective thinking, and problem-solving abilities of our students so that they may become ethical, productive, contributing participants and leaders in a democratic and diverse society.

For more than 150 years, the College of Education at EMU has played a major state and national role in the preparation of teachers, other school personnel and related professionals. For example, we were among the first institutions in the country to prepare physical education teachers and special education teachers.

Now we are, and have been for some years, the nation's largest producer of professional education personnel. We offer programs at the bachelor's, master's, specialist's and doctoral degree levels.

Our programs have received a number of national recognitions. We are fully accredited by the National Council for the Accreditation of Teacher Education and approved by the Michigan Department of Education. In almost every instance where a program-specific national recognition exists, we hold this recognition at the highest level. Through the Office of Collaborative Education, we work with numerous school districts in a variety of school improvement activities.

Our teacher graduates are highly prized and are actively recruited by many out-of-state school districts. Our alumni hold many distinctions, including the Pulitzer Prize and National Teacher of the Year, and serve as presidents or executives of major national professional organizations.

Our initial teacher preparation programs are guided by the theme, "Caring professional educators for a diverse and democratic society."

Our advanced professional educator programs are guided by the theme, "Inquiry, advocacy and leadership in education for a diverse and democratic society."

## Graduate Degrees and Certificate Programs

The college offers the following graduate degrees and graduate certificate programs in the various disciplines of education. Admission and degree requirements for each of the programs can be found in the departmental sections of this catalog.

[^14]MASTER OF ARTS in Learning Disabilities
MASTER OF ARTS in Speech/Language Pathology

## Teacher Education

MASTER OF ARTS in Early Childhood Education
MASTER OF ARTS in Educational Psychology
MASTER OF ARTS in Educational Psychology - Development and Personality
MASTER OF ARTS in Educational Psychology — Research and Evaluation
MASTER OF ARTS in Educational Media and Technology
MASTER OF ARTS in Curriculum and Instruction
MASTER OF ARTS in Elementary Education
MASTER OF ARTS in Middle Level Education
MASTER OF ARTS in Secondary Education
MASTER OF ARTS in Common Learnings in Curriculum
MASTER OF ARTS in Reading
MASTER OF ARTS in Social Foundations
MASTER OF ARTS in Schools, Society and Violence
GRADUATE CERTIFICATE in Educational Assessment
GRADUATE CERTIFICATE in Educational Media and Technology

## Post-Baccalaureate Certification Programs

This Post-Baccalaureate program, effective Fall 2002, is offered at the undergraduate level. For details, refer to the Eastern Michigan University Undergraduate Catalog.

## The Continuing Certificate

State Administrative Rule 390.1132 provides, in part, that in order to be eligible for institutional recommendation for a continuing or professional certificate, the applicant must have earned 18 hours in a planned course of study. The planned course of study is determined in this way:

## For physical education teachers

Students should consult their adviser to develop the planned program, which is based on previous experiences, individual goals, career objectives, GPA, deficiencies, and the like. The program of studies that is planned must be completed in order for the individual to receive the institution's recommendation.

## For special education teachers

The student must meet the requirements to pursue the M.A. degree and must be program-admitted. The student is then assigned an adviser. The endorsement requirements are rather prescriptive and are longer than 18 hours. See the Special Education section of this catalog for detailed requirements in each special education area.

## For all other teachers

Those who wish to pursue both the credential and the M.A. are referred by the Department of Teacher Education to the appropriate adviser in that department or, in some cases, another department in which the program is housed.

Those who desire only the recommendation for the continuing certificate must consult with the Teacher Certification Office. Those who want to add an endorsement (e.g., adding an elementary endorsement to the secondary credential or vice versa, adding a middle school endorsement to the secondary credential, adding a reading endorsement or adding an early childhood endorsement) will be provided with a standard list of courses that must be completed in order to accomplish the objective.

## Continuing Certification

The Michigan provisional teaching certificate earned in teacher preparation programs is good for six years. In order to maintain a valid teaching credential, teachers must continue their studies toward a professional certificate. A minimum of 10 credit hours must be earned during the first six years in
order to renew a provisional certificate. The College of Education's Office of Academic Services is responsible for assisting certified Michigan teachers in maintaining and updating their teaching credentials with the state of Michigan. The Office of Academic Services (206 Porter, 734.487.0275) can help licensed Michigan teachers renew a provisional certificate, add endorsements or apply for the professional certificate. The office is unable to process applications for certification outside Michigan.

Current teacher licensing information for each licensed teacher in Michigan can be found at http://meis.mde.state.mi.us/teachercert/sr_ teaCerts.asp.

## First Renewal Certificate Requirements (good for three years)

1. Ten credit hours after the issuance of Michigan provisional certificate or a master's degree in a field related to teaching from Eastern Michigan University. Coursework must support major/minor subject areas already existing on the certificate, or endorsement areas to be added to an existing certificate. (Six credits are required from Eastern Michigan University and four credits may be transferred if approved by the certification coordinator. No community college credits will be accepted.)
2. Photocopy of latest Michigan certificate (front side only).
3. Photocopy of graduate transcripts, only if credit is from another college or university. Please do not send original transcripts to the Office of Academic Services.

## Second Renewal Certificate Requirements (good for three years)

1. Completion of the entire 18 credit hours after the issuance of the Michigan provisional certificate or a master's degree in a field related to teaching from Eastern Michigan University. Coursework must support major/minor subject areas already existing on the certificate, or endorsement areas to be added to an existing certificate. (Twelve credits must be taken at Eastern Michigan University and six credits may be transferred if approved by the certification coordinator. No community college credits will be accepted.)
2. Photocopy of latest Michigan certificate (front side only).
3. Photocopy of graduate transcripts, only if credit is from another college or university. Please do not send original transcripts to the Office of Academic Services.

## Professional Certificate Requirements

1. Three years of teaching ( 150 days per year, 450 days total).
2. Completion of the entire 18 credit hours after the issuance of the Michigan provisional certificate or a master's degree in a field related to teaching from Eastern Michigan University. Coursework must support major/minor subject areas already existing on the certificate. (Twelve credits must be taken at Eastern Michigan University and six credits may be transferred if approved by the certification coordinator. No community college credits will be accepted.) To meet state Reading requirements for the professional certificate, six hours of Reading courses for elementary or three hours for Secondary must be posted on your transcripts.
3. Photocopy of latest Michigan certificate (front side only).
4. Photocopy of transcripts, only if credit is from another college or university. Please do not send original transcripts to the Office of Academic Services.
5. Recommendation form completed by appropriate school district representative. After the professional certificate has been issued the teacher must complete either six credit hours or 18 hours of CEU's that have been approved in advance by the Michigan Department of Education. Contact the Michigan Department of Education (Marleen Higbee) by phone, 517.373 .3310 , or fax, 517.373 .0542 , to obtain an application to renew professional certificates.

Eastern Michigan University does not process renewals of Professional Certificates. Professional renewals are handled by contacting the Michigan Department of Education directly (517.373.3310).

## Adding Endorsements

Endorsements are available in various subject areas. These endorsements require coursework, and typically, the appropriate subject area test from the Michigan Test for Teacher Certification. The first step in this process is to
meet with a department adviser who can write a program of study for the subject area you would like to add. Upon completion of the coursework and test(s), each candidate must present the following documents to the College of Education Office of Academic Services.

1. Photocopy of test scores for the endorsement area to be added.
2. Photocopy of latest Michigan certificate (front side only).
3. Photocopy of transcripts, only if credit is from another college or university. Please do not send original transcripts to the Office of Academic Services.
4. Signed approval form from appropriate Eastern Michigan University department, if needed.

The Michigan Department of Education will bill each candidate for their renewal, professional certificate or endorsement. Do not send any money to the Office of Academic Services.

## Admission

Students interested in pursuing coursework toward continuing certification should apply for Graduate School admission as "non-degree" students. This requires an application, application fees and undergraduate transcripts (401 Pierce, 734.487.3060).

# Department of Leadership and Counseling 

Campus Address: 304 Porter Building<br>Telephone: 734.487.0255<br>Internet: www.emich.edu/coe/Lead_Coun<br>E-mail: Jackie.Tracy@emich.edu

See pages 183 and 195 for course descriptions.

The Department of Leadership and Counseling offers two program areas: educational leadership and counseling. The educational leadership program awards the master of arts degree, the specialist in arts degree and the University's first doctoral degree, the Ed.D. The counseling program offers the master of arts degree.

Both program areas have the flexibility and content to provide education to a broad range of professionals seeking training for K-12 leadership, school, community and college counseling, student affairs and higher education administration. The specific requirements and class offerings follow. Please check the department Web site for recent program changes.

Admission applications are processed in order for candidates to begin studies in the winter, spring, summer and fall. To be considered for the admission process, a completed application including transcripts, statement of intent, résumé, recommendations and other assessment(s) that may be necessary must be submitted to Graduate Admissions, P.O. Box 970, Eastern Michigan University, Ypsilanti, MI 48197 by:

- February 10th for spring admission
- March 1st for summer admission
- May 15th for Fall admission
- September 15th for Winter admission


## Educational Leadership Program

The educational leadership programs leading to the master of arts degree, the specialist of arts degree and the doctor of education degree, as well as individual courses, are of interest and assistance to professional educators in general. For prospective or practicing administrators, the programs provide basic administrative course offerings as well as opportunities to specialize in administration in K-12 schools, student affairs and higher education.

In addition, persons preparing for leadership positions in the many other areas of education (e.g., adult education, career education, community education, personnel, school and community relations, administration of vocational and technical education, etc.) will find an appropriate selection of courses. Many of the courses offered are excellent electives for students pursuing advanced degrees in other departments.

Program formats have been designed to provide flexibility in course selection to accommodate each student's unique experiences and future career goals and are located in our on-campus and off-campus locations. Course selections should reflect the student's career aspirations and University requirements. The program is usually planned to prepare the student for a specific educational administrative position. More complete information may be obtained by contacting the advising coordinator.

## DOCTOR OF EDUCATION in Educational Leadership (EDLD)

## Model

Eastern Michigan University's advanced professional education programs develop leaders who demonstrate reflective thought and scholarship within the context of a culturally diverse society.

## Admission Requirements

The doctoral program requirements, as stated in the graduate bulletin, are the basis for admission and completion of the doctorate in educational leadership. Refer to the appropriate section of this document for details.

To be eligible for admission to the doctoral program in educational leadership at Eastern Michigan University, the applicant must meet the following requirements:

1. Must have completed either a master's or specialist's degree from an accredited university.
a. Students with a master's degree must have completed it with a minimum GPA of 3.3 on a 4.0 scale.
b. Students with a specialist's degree from Eastern Michigan University or from another accredited institution of higher education must have a minimum graduate GPA of 3.3 on a 4.0 scale.
2. Present evidence of a valid teaching certificate or sign a waiver indicating that they do not seek certification.
3. Complete the Graduate School application.
4. Provide a résumé reflecting professional experience, scholarly activity, etc.
5. Submit three letters of recommendation addressing the applicant's professional background, two of which must be from past or present supervisors.
6. It is desirable that applicants currently hold, or formerly have held, an administrative position; or present evidence of leadership potential.
7. Scores on the General Test of the Graduate Record Examinations (Graduate Record Examination) are required. Typically, students admitted to the doctoral program will have scored at or above the $55^{\text {th }}$ percentile on the analytical, verbal and quantitative sections of the Graduate Record Examination with a minimum composite score of 1000 on the General Test and a 4.0 on analytical writing. Given the focus of the educational leadership program on a holistic admissions approach, failure to score at this level of the Graduate Record Examination will not necessarily exclude a person from admission if other factors indicate potential for success and are judged as superior assets by the faculty.
8. The faculty of the educational leadership program will conduct personal interviews with selected individuals applying for the doctoral program once a year. An extemporaneous writing sample is required.
9. The admission deadline is February 1 for admittance during the following summer session. A limited number of candidates are chosen each year.

## Admission Process

The admission process for the doctoral degree includes the following steps:

1. Send the Graduate School application form, required transcripts, résumé, a copy of test scores, personal essay and letters of recommendation to the Graduate Admissions Office.
2. Send official Graduate Record Exam results to the Graduate Admissions Office.
3. Upon receipt of the completed applications by February 1, the materials will be reviewed by the faculty of the educational leadership program. Selected applicants will be invited to a personal interview with the program faculty.
4. Following personal interviews, those candidates who have presented the greatest evidence of potential for success in the program will be selected and notified of their admission by the program coordinator. Only 12-15 candidates are selected annually.
5. All decisions by the faculty regarding admissions are final.

## Retention Process and Review

The objective of this retention plan is to monitor students' development and progress in the program, and to identify those students who need additional assistance in order to complete the doctoral program successfully.

1. If a doctoral student receives a grade lower than $B+$ in any educational leadership class, the educational leadership faculty member who assigns this grade must complete the "Leadership Candidate Evaluation Form" for this student, assign the appropriate rating on each of the 12 generic leadership skills, and include it in the student's departmental file.
2. A retention review of the student's file will be conducted at the end of the doctoral student's first academic year by the student's doctoral adviser. Students who have not maintained a minimum GPA of at least 3.5 in required educational leadership courses, or those who have not achieved an overall rating of at least "average" on the "Leadership Candidate Evaluation Form," will be requested to meet with their doctoral adviser to discuss problems, concerns and issues. If a need for assistance is established, a plan will be developed by the adviser and student.

## Credit Interface with Specialist's Degree

Students may enter the doctoral program in educational leadership with a specialist's degree in educational leadership either from Eastern Michigan University or from another accredited institution of higher education. The interface of credit from this degree with the doctoral degree differs depending on the field in which the specialist's degree was earned.

Those students who have completed the EMU specialist's degree in educational leadership, or in another department at EMU, are eligible to apply up to 32 hours of credit from this degree toward completion of the 60 -hour doctoral program. The determination of which hours can be counted will be the responsibility of the student's doctoral adviser.

## Internship Option

The application of conceptual, technical and human relations skills that is essential to successful educational leadership (i.e., the testing of theory against prevailing practice) is best observed and explored when there is direct involvement in administration. Students in the educational leadership doctoral program have the option of an internship of 120-240 clock hours. This internship is to be a clinical experience that occurs in a leadership role related to the student's career goals. The internship is to be supervised by an experienced educational administrator and the director of the intern program in the educational leadership program.

The internship requirement must be completed prior to the completion of the comprehensive qualifying examination.

## Residence Requirement

Although the Graduate School does not require a specific period of campus residency, it nevertheless supports the efforts of graduate programs to create a cohesive intellectual community. Rigorous graduate programs constitute a community of scholars, in which students are gradually introduced by faculty to the scholarly standards, research protocols, ethical norms, professional expectations, social history and current leaders of the discipline. Such a community must be created deliberately, especially in programs with a high concentration of students who commute, attend part time and are employed full time. Seminars, speaker programs, shared authorship and conference presentations, and social events are just some of the ways in which this socialization can occur.

## Comprehensive Qualifying Examination

When students have completed all doctoral course work except for dissertation research, they are required to complete the comprehensive qualifying examination. The purpose of this examination is to determine the student's subject mastery of the concepts, literature base and research; and knowledge of problems and issues in the major field (educational leadership) and the cognate area of study. The student is expected to provide written evidence of the ability to analyze and synthesize information, integrate learnings into a meaningful whole and draw appropriate conclusions.

Students may select from any of three options to satisfy the comprehensive qualifying examination requirement. Each option is extensively defined in the doctoral student handbook.

Following the writing of the comprehensive qualifying examination, the student's responses will be reviewed by the student's doctoral examination committee of the educational leadership program, depending upon the examination option selected. All options include an oral examination during which the student's written exam is discussed in greater depth by the student with members of the doctoral committee. In the case of option two, appropriate individuals from the host agency for the problem may also be invited to be present at the oral examination. However, decisions regarding the successful completion of the comprehensive qualifying examination will be made by the student's doctoral committee members only.

Failure on the written portion of the comprehensive qualifying examination (either partially or totally) will cause the student's performance in the program to be reviewed by the student's doctoral committee in consultation with the department head. The committee will then recommend that either the student be dismissed from the doctoral program, be permitted to withdraw from the doctoral program or be allowed to retake the examination (either partially or totally) after a remediation plan has been developed and implemented. Re-examination may not take place until at least six months have elapsed, but must occur within one year. The results of the second examination are final. After the second written attempt, the student's doctoral committee may ask the student to participate in an intensive oral examination. If, after this oral examination, the student's doctoral committee maintains that the student has not achieved the level of proficiency needed by a professional in the field of educational leadership, the recommendation will be made to the graduate dean that the student be dismissed from the doctoral program.

## Curriculum

A doctoral student's individualized course of study is normally expected to encompass at least 60 hours of course work beyond the master's degree. The exact number of hours will be determined by the student's program adviser, based on a review of previous graduate work/transcripts, the student's professional and personal aspirations and the doctor of education degree requirements as set forth by the Graduate School and the Department of Leadership and Counseling. Therefore, some plans of study will have only 60 hours while others may include additional hours, either courses designed to remove deficiencies or courses to enhance opportunities for leadership success, at the discretion of the program adviser.

The doctoral program of study has four components: major (educational leadership), cognate, research support and dissertation research. The minimum number of credit hours allocated to each component are:
Major (educational leadership)
30 hours
Cognate......................................................................... 10 hours
Research Support............................................................. 8 hours
Dissertation Research ..................................................... 12 hours

Program Total ........................................................................ 60 hours
Major (Educational Leadership) ................................................ 30 hours The 30 hours in the major in educational leadership include 18 hours in the following required courses:

## EDLD710 Leadership Theory (3 hrs) <br> EDLD740 Organizational Theory (3 hrs) <br> EDLD794 Advanced Seminar in Educational Administration (3 hrs) <br> EDLD810 Ethics and Policy Analysis for Educational Leaders (3 hrs) <br> EDLD820 The Politics of Educational Leadership (3 hrs) <br> EDLD714 Data-Driven Decision Management for Educational Leaders (3 hrs)

The remaining 12 hours are to be selected from EDLD courses according to the student's professional and personal goals, including considerations of career advancement and certification, and as approved by the student's doctoral adviser. Previous graduate course work in educational leadership which was taken as part of the specialist's degree can be used to meet some of the 30 hours in the major, as described in the credit interface section on page 112.

## Cognate Courses...................................................................... 10 hours

The opportunity for individualization of the doctoral program is present in the selection of a cognate area of study which contributes significantly to the student's development as a professional educator and administrator. The cognate specialization is developed through completion of a sequence of related courses that are designed to add depth to the student's doctoral program. In order to provide maximum flexibility in meeting individual needs, the 10 -hour cognate may be completed in any one or a combination of graduate academic units, departments, schools, or colleges of the University that offer a sufficient number of advanced graduate courses. Previous graduate course work in a cognate that was taken as part of the specialist degree can be used to meet some of the 10 hours in the cognate, as described in the credit interface section on page 112.

Research Support Courses ......................................................... 8 hours
EDPS621 Descriptive Statistics (2 hrs)
EDLD712 Analysis of Research in Administration (3 hrs)
EDPS651 Inferential Statistics (2 hrs)
EDPS687 Qualitative/Interpretive Research (2 hrs)
The research support component of the doctoral program is designed to enable the student to demonstrate competence in research design, analysis and the use of research tools. Additionally, the student will have experience in conducting useful research and be able to use educational research as an informed and productive consumer. Both statistics and applications courses are needed in this area, depending upon the student's background in this field, and as approved by the student's doctoral adviser. Previous graduate course work in research and research support that was taken as part of the specialist's degree can be used to meet some of the eight hours in this area, as described in the credit interface section on page 112.

## Dissertation Research

12 hours

## EDLD895 Dissertation Research Seminar (2 hrs) EDLD896-900 Dissertation Research (10 hrs)

Each student in the doctor of education program will be required to complete a dissertation, a document representing an original research effort. The dissertation will focus on an area of particular interest to the student and the dissertation chair; and the research may be conducted using a variety of research designs (causal-comparative, experimental, etc.) as well
as approaches (quantitative or qualitative). The student must register for a minimum of 12 hours of dissertation research, including the dissertation seminar, but may not enroll in dissertation research until he or she has completed the comprehensive qualifying examination and has been admitted to candidacy by the Graduate School. However, this stipulation does not preclude enrollment in the dissertation seminar nor in the student's working with the dissertation chair in formulating ideas about specific research topics. Furthermore, the approval of the dissertation proposal cannot occur until after the student has passed the comprehensive qualifying examination and is enrolled in the dissertation seminar.

When the dissertation is completed, the student will present the written document to the dissertation committee for approval. In a two-hour oral examination/defense, the student will answer questions related to the dissertation research and will defend it. At the conclusion of the oral examination, the doctoral/dissertation committee will determine: 1 ) if the written document meets doctoral standards of quality and rigor; and 2) if the student has successfully defended the research conducted. This process of review and revision continues until the doctoral committee approves both the written document and student's oral defense of the research.

Program Total
60 hours

## SPECIALIST OF ARTS in Educational Leadership (EDL)

## Model

Eastern Michigan University's advanced professional education programs develop leaders who demonstrate reflective thought and scholarship within the context of a culturally diverse society.

## Admission Requirements

1. Applicants must meet the admission requirements of the Graduate School.
2. Applicants must have completed a master's degree from an accredited university with a minimum GPA of 3.3 on a 4.0 scale.
3. Foreign students must submit scores on the Test of English as a Foreign Language (TOEFL) of 550 (total) or the Michigan English Language Ability Battery (MELAB) of 80 . They must also submit a minimum score of 230 on the Test of Spoken English (TSE). Scores may not be more than five years old.
4. Applicants must submit scores on the analytical writing, quantitative and verbal tests of the Graduate Record Examinations (Graduate Record Examination).
5. Applicants must submit confidential appraisal forms from two professional supervisors and/or supervising professors that address the quality of the applicant's professional work. Applicants may receive these forms from the department office. Recommendation forms are due with the Graduate School application.

Priority Dates:
Fall admission:
Winter admission:
Spring admission:
Summer admission:
6. Applicants must present evidence of a valid teaching certificate or sign a waiver indicating that they do not seek certification.
7. Applicants must submit a résumé that details their professional and educational experiences.
8. On the graduate application, students must complete the personal statement of accomplishments and academic goals portion describing the reasons for requesting admission. This essay must be a minimum of 250 words and will be reviewed as an indicator of writing ability.

## Admission Process

The admission process for the specialist's degree is as follows:

1. The Graduate School will receive and gather all required documents. Completed applications that contain test scores, the required GPAs,
confidential appraisal forms and the résumé will be forwarded to the coordinator of advising for the educational leadership program.
2. Completed applications will be reviewed by the faculty review committee. Those applications that include acceptable GPAs, the résumé, recommendations, test scores, goal statements and confidential appraisal forms will be admitted, assigned an adviser and invited for an advising interview. Applications may be deemed "questionable" due to a combination of low GPA, low test scores, fair or poor recommendations, poor writing ability and/or statements that are inconsistent with the student's goals as an administrator.
3. These applications will be reviewed by the full faculty, giving special consideration to the student's life experiences, verbal skills, writing skills, educational background, GPAs and scores on the Graduate Record Examination.
4. Those applications which are accepted will be notified. The other applications will be returned to the Graduate School to be notified by the graduate dean.
5. All decisions by the faculty regarding admissions are final.

## Retention Review Requirements

A retention review will be conducted by the faculty review committee and coordinated by the EDLD coordinator of advising. Students who have not met the following criteria will be identified and asked to meet with their academic advisers. Students must have:

1. A minimum GPA of at least 3.3 in required educational leadership courses; and
2. An overall academic skills assessment of average, or above, in any educational leadership class.

## Retention Process

The objective of this retention plan is to assure that students have an opportunity to review the appropriateness of their career choice and to receive assistance in achieving their specialist in arts degree in educational leadership should they choose to continue in the field. The retention review will be conducted by the EDLD coordinator of advising with the faculty review committee.

1. The Leadership Candidate Evaluation form may be completed for any student in any class, if they choose to do so. These forms will be filed in the student's folder.
2. The EDLD coordinator of advising will examine the files of all students who did not achieve the required GPA and recommend review by the faculty review committee.
3. The folders, with the evaluation forms for this group of students, will then be reviewed by the faculty review committee. If the committee agrees that the record of each student indicates performance below graduate or program standards, the student and his or her adviser will be notified in writing.
4. The EDLD coordinator of advising will send a letter to each identified student requesting him or her to meet with his or her adviser to discuss career goals and the need for assistance. If the need for assistance is established, a plan will be developed. For example, if difficulties exist with skill or concept acquisition, the student may be required to audit a class.

## Culminating Experience

The culminating experience for the specialist's degree will be the student's field-based research study and presentation of the student's internship experiences as set forth in his or her written log. The culminating experience will be conducted by the instructor of the intern program and the director of the field-based research study.

## Field-Based Research

Field-based research, EDLD713, is available to specialist degree students winter or summer term only. Students are encouraged to contact the department at least two semesters prior to registration for the class to reserve a place in the class.

## Curriculum

The specialist's degree program requires a minimum of 32 hours beyond the master's degree. Students work closely with their advisers in developing programs that will prepare them for their career goals.

Candidates for the specialist's degree in educational leadership must satisfactorily complete all work on the program of study and achieve an overall GPA of $3.3(\mathrm{~B}+)$.

The requirements outlined below provide the basic guidelines within which the student's program is developed.

Concentration Area Courses..................................................... 18 hours
EDLD625 Superintendency and District Level Leadership (3 hrs)
EDLD710 Leadership Theory ( 3 hrs)
EDLD740 Organizational Theory ( 3 hrs)
9 hours in consultation with an adviser.
Applied Research Courses...................................................................... 8 hours
EDPS621 Statistical Applications in Educational Research (2 hrs)
EDLD713 Field-Based Research (4 hrs)
EDLD787/789 Internship in Educational Administration (2/4 hrs) Previous internships or administrative experience determines whether a student takes two, three or four hours of the internship.

Cognate Courses........................................................................ 6 hours
Six hours selected from either educational leadership or other areas in consultation with the adviser.

Program Total 32 hours

# MASTER OF ARTS in Educational Leadership (EDL) 

## Model

Eastern Michigan University's advanced professional education programs develop leaders who demonstrate reflective thought and scholarship within the context of a culturally diverse society.

## Admission Requirements

1. Applicants must meet the admission requirements of the Graduate School.
2. Applicants must have earned a valid undergraduate degree from an accredited four-year institution of higher education (an undergraduate student may apply after the final semester's registration is completed).
3. International students must submit scores on the Test of English as a Foreign Language (TOEFL) of 550 and 5 on the Test of Written English (TWE).
4. Applicants seeking their first master's degree must have an undergraduate GPA of 2.5 overall or a GPA of 2.75 in the second half of the undergraduate program. Applicants seeking a second master's degree must have a GPA of 3.0 or better on their previous graduate degree.
5. Applicants must submit confidential appraisal forms from two professional supervisors and/or supervising professors that address the quality of the applicant's professional work. Applicants may receive these forms from the department office and are due with the graduate school application.
6. Applicants must submit a resume that details their professional and educational experiences.
7. On the graduate application, students must complete the personal statement of accomplishments and academic goals portion describing the reasons for requesting admission. This essay must be a minimum of 250 words and will be reviewed as an indicator of writing ability.

## Admission Process

The admission process for the master's degree is as follows:

1. Graduate Admissions will receive and gather all required documents. Completed applications that contain test scores, the required GPAs,
confidential appraisal forms, a copy of the teaching certificate or waiver, and the résumé will be forwarded to the coordinator of advising for the educational leadership program.
2. Completed applications will be reviewed by the faculty review committee. Those applications that include acceptable GPAs, the résumé, recommendations, goal statement and confidential appraisal forms will be admitted, assigned an adviser and invited for an advising interview. Applications may be deemed "questionable" due to a combination of low GPA, fair or poor recommendations, poor writing ability and/or statements that are inconsistent with the student's goals as an administrator.
3. These applications will be reviewed by the full faculty, giving special consideration to the life experiences, verbal skills, writing skills, educational background and GPAs.
4. Those applications which are accepted will be notified. The other applications will be returned to the Graduate School to be notified by the graduate dean.
5. All decisions by the faculty regarding admissions are final.

## Retention Review Requirements

A retention review will be conducted by the faculty review committee and coordinated by the EDLD coordinator of advising. Students who have not met the following criteria will be identified and asked to meet with their academic advisers. Students must have:

1. a minimum GPA of at least 3.25 in required educational leadership courses;
2. acceptable progress made in developing a professional portfolio after completing 18 hours of course work; and
3. an overall academic skills assessment of average, or above, in any educational leadership class.

## Retention Process

The objective of this retention plan is to assure that students have an opportunity to review the appropriateness of their career choice and to receive assistance in achieving their master's degree in educational leadership should they choose to continue in the field. The retention review will be conducted by the EDLD coordinator of advising with the faculty review committee.

1. After completing 18 hours of course work, students should schedule a meeting with their adviser to discuss the review progress in developing a professional portfolio.
2. Faculty may complete the Leadership Candidate Evaluation form for any student in any class, if they choose to do so. These forms will be filed in the student's folder.
3. Each semester the Graduate School will review the GPA of each student completing 12 hours (which should include EDLD510 and EDLD514). The EDLD coordinator of advising will examine the files of all students who did not achieve the required GPA and recommend review by the faculty review committee.
4. The coordinator of advising will send a letter to each identified student requesting him or her to meet with his or her adviser to discuss career goals and the need for assistance. If the need for assistance is established, a plan will be developed. For example, if difficulties exist with skill or concept acquisition, the student may be required to audit a class.

## Exit Process

## Portfolio Requirement

Students will be guided through the portfolio assessment process by their adviser as follows:

1. Following admission, a student should schedule a meeting with his/ her adviser to plan his/her program and to obtain information about the exit portfolio assessment.
2. After completing 18 hours of course work, a student should schedule a meeting with his/her adviser to discuss the progress of his/her portfolio.
3. When a student believes his/her portfolio is complete, he/she should contact his/her adviser to schedule his/her oral and written presen-
tation. This will be made before at least two members of the EDLD program faculty, and will consist of an oral presentation by the student, followed by discussion with faculty regarding the student's personal learning and growth, along with perceptions of the strengths and/or weaknesses of the overall program.

Student achievement will be documented in a cumulative portfolio that contains artifacts representative of the educational leadership knowledgebase.

An assessment of the portfolio will be made using the following criteria:

## Cognitive complexity

Quality of content
Comprehensiveness
Meaningfulness
In addition, the program component stressing effective written and oral communication skills will be assessed by examination of the quality of writing presented in the portfolio and the quality of oral communication displayed in the portfolio presentation before faculty. All of the components of the portfolio must be rated satisfactory for completion.

The portfolio will be evaluated as one of the following:

## Pass without revisions

Pass with minor revisions by date indicated
Pass with major revisions by date indicated
No pass

## MASTER OF ARTS in Educational Leadership - K-12

Students must complete 29 hours of program course work and nine hours (including EDPS677 Methods in Quantitative Research) in the supportive area. EDPS677 should be taken as early as possible in the program.

The student's adviser will assist in developing the program of study that may include course work necessary for both administrative certification and the master's degree.

A minimum of 38 hours of graduate credit applicable to the program is required for the master of arts degree. Courses in the basic concentration include:

```
Basic Concentration Courses. 29 hours
EDLD509 Educational Leadership in a Pluralistic Society (3 hrs)
EDLD510 Educational Organization (3 hrs)
EDLD513 Community Education and Community Relations (3 hrs)
EDLD514 Educational Leadership Theory and Practice (3 hrs)
EDLD515 Instructional Supervision and Program Evaluation (3 hrs) EDLD518 Multimedia Technology for School Administrators (3 hrs)
EDLD612 Economics of Public Education (3 hrs)
EDLD620 The Principalship (3 hrs)
EDLD630 Legal, Ethical and Professional Issues of Administration (3 hrs)
EDLD687 Internship (2 hrs)
```

Optional Elective Courses
.9 hours
EDPS677 Methods in Quantitative Research (3 hrs)
Six hours selected in consultation with the graduate adviser.
Program Total
38 hours

## MASTER OF ARTS in Educational Leadership Higher Education/General Administration

Students must complete a minimum of 38 credit hours to complete the master's degree. Twenty hours of specific basic program coursework, two hours in general administration and 15 EDLD and related course electives are required. Electives are chosen in consultation with the student's program adviser.

[^15]EDLD514 Educational Leadership Theory and Practice (3 hrs) COUN551 Contemporary College Students (3 hrs)
EDLD613 Introduction to Higher Education (3 hrs)
EDLD622 Organization \& Administration of Higher Education (3 hrs) EDPS677 Methods in Quantitative Research (3 hrs)

General Education Emphasis...................................................... 2 hours
EDLD687 Master's Internship in Educational Leadership (2 hrs)
EDLD Courses and Related Electives....................................... 15 hours
Program Total .38 hours

## MASTER OF ARTS in Educational Leadership - Higher Education/Student Affairs

Students must complete a minimum of 38 credit hours to complete the master's degree. Twenty hours of specific basic concentration coursework, 10 hours in student affairs and 15 EDLD and related course electives are required. Electives are chosen in consultation with the student's program adviser.
Basic Concentration Courses ..... 21 hours
EDLD509 Educational Leadership in a Pluralist Society (3 hrs) EDLD510 Educational Organization (3 hrs)

    EDLD514 Educational Leadership Theory and Practice (3 hrs)
    
    COUN551 Contemporary College Students (3 hrs)
    
    EDLD613 Introduction to Higher Education (3 hrs)
    
    EDLD622 Organization \& Administration of Higher Education (3 hrs)
    
    EDPS677 Methods in Quantitative Research (3 hrs)
    Student Affairs Emphasis............................................................ 10 hours
COUN550 Introduction to Student Affairs in Higher Education (3 hrs)
COUN655 College Student Development Theory ( 3 hrs )
COUN689 Field-Based Experience I (2 hrs)
COUN690 Field-Based Experience II (2 hrs)
University Elective Courses ....................................................... 7 hours
Program Total ........................................................................ 38 hours

## GRADUATE CERTIFICATE in Community College Leadership (CCL)

```
Required Core Courses................................................................ }15\mathrm{ hours
    COUN551 Contemporary College Students (3 hrs)
    EDLD611 Adult and Continuing Education (3 hrs)
    EDLD632 The Community College (3 hrs)
    EDLD696 Seminar: Organizational Control and Administration of
        Community Colleges (3 hrs)
    One course from the following:
        EDLD509 Educational Leadership in a Pluralistic Society (3 hrs)
        EDLD514 Educational Leadership Theory and Practice (3 hrs)
```

Elective Course .......................................................................... 3 hours
Three hours from the following:
EDLD510 Organizational Theory (3 hrs)
EDLD613 Introduction to Higher Education (3 hrs)
EDLD614 Law of Higher Education (2 hrs)
EDLD622 Organizational and Administration of Higher
Education (3 hrs)
EDLD633 History of Higher Education (3 hrs)
EDLD634 Higher Education Finance (3 hrs)
EDLD635 Policy Analysis and Evaluation in Higher
Education (3 hrs)
EDLD680 Grant Writing (3 hrs)
EDLD695 Women in Leadership (2 hrs)

COUN550 Introduction to Student Affairs in Higher Education (3 hrs)
COUN655 College Student Development Theory (3 hrs)
EDPS677 Methods in Quantitative Research (3 hrs)
Certificate Total 18 hours

## Additional Program Information

Course Substitutions/Program Changes
Changes in the student's official program and substitution of courses must be approved by the adviser prior to registration.

## Courses Outside the Program

A suggested list of courses has been prepared by the EDLD Program. Other courses may be used for electives in this area if they are approved by the student's adviser.

## Internships

Information is available from the director of the intern program or at www.emich.edu/coe/Lead_Coun/tracy.html. Internship placements should be arranged at least one semester in advance and must be approved by the internship director.

## School Counseling, Community Counseling and College Counseling Programs

## Program Advising

Graduate study in counseling consists of three master of arts degree programs: school counseling, community counseling and college counseling. All counseling programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

The master's degree program provides entry-level competencies and credentials for such positions as elementary and secondary school counselors, community agency counselors and college counselors. Counseling programs meet academic requirements for licensing as professional counselors in Michigan. The school counseling program also meets requirements for K-12 endorsement for school counselors in Michigan. The admission requirements for the school counseling, the college counseling and community counseling programs are as follows:

## Admission Requirements

Admission to all programs is selective. The selection process is designed to assess the candidate's suitability for graduate study and for a professional career in counseling. Candidates who are selected for these programs are expected to make major commitments to their graduate training.

1. Applicants must have graduated from a regionally accredited institution.
2. Evidence of academic aptitude for graduate-level study, that includes at least one of the following:
a. A 2.75 overall undergraduate GPA, or a 3.0 GPA in the second half of the undergraduate degree program.
b. A graduate GPA of a 3.3 on a previously completed advanced degree.
c. A combined score (verbal and quantitative) of at least 850 and a minimum score (analytical writing) of 3.5 on the Graduate Record Examination. The Graduate Record Examination scores may not be more than five years old.
d. Applicants not meeting other criteria, but having an acquired knowledge of the counseling field based on five years of related experience, may be eligible. Students applying under this provision must contact the coordinator of advising for specific procedures prior to application to the Graduate School.
3. International students must meet at least one of the following additional criteria:
a. A score of 550 (Total) on the Test of English as a Foreign Language (TOEFL), a score of 230 on the Test of Spoken English (TSE) and a rating of 5 on the Test of Written English (TWE). (Additional course work in composition may be required.) These tests must have been taken within the past five years.
b. A score of 80 on the Michigan English Language Ability Battery (MELAB) and a rating of at least 3.0 on the oral interview portion of the MELAB. (Additional course work in composition may be required.) These tests must have been taken within the past five years.
4. Statement of Intent: A one-page statement focusing on the applicant's motivation and rationale for seeking admission to the specific program as well as his or her background and goals related to professional studies.
5. Résumé: A focused, one-page summary of program-relevant educational, career and/or life experiences.
6. Three recommendations: These must be completed on recommendation forms available from the department. They should be completed by professionals with knowledge of the applicant's suitability for graduate work (e.g., supervisors, undergraduate professors).

## Admission Process

Admission to counseling programs occurs during a two-phase cycle. Applicants are screened during the semester prior to the semester desired for admission. All materials must be submitted to the Graduate School by their established deadlines.

1. Graduate Admissions receives and gathers all required documents. After all materials (including transcripts, recommendation forms, résumé, letter of intent, other statements and Graduate Record Examination scores) are on file, they are sent to the department for review.
2. The counseling program will notify students, in writing, when they have received copies of all application materials from the Graduate School. The program review process is conducted in two phases.

Phase I: Applicants are screened based on the following criteria: academic potential as reflected in the GPA and Graduate Record Examination scores; compatibility of applicant's goals and program goals as expressed in the letter of intent; and educational, career and life experiences that demonstrate interest in a career as a professional counselor or student personnel worker, as reflected in the résumé and letters of recommendation.
Phase II: Based on the Phase I review, select applicants are invited to campus for a series of interviews with the program faculty.
3. Final admission decisions are then made by the faculty.

## Appeal

The admissions appeal procedure provides each applicant with the opportunity to appeal formally the admissions decision. Appeal must be based on capricious or unfair treatment during the admissions process. This procedure is not intended to handle the case of applicants who do not meet minimum standards for admission as outlined in the graduate catalog. Appeal must begin within five working days of the start of the next semester, i.e., the semester following the admissions decision. Students wishing to appeal must contact the coordinator of advising to obtain a written outline of the appeal procedure.

## Personal and Professional Development

Throughout the program, students are encouraged to become more aware of themselves, to evaluate their own potential for careers in counseling and to grow both personally and professionally. Courses provide opportunities for growth and development through self-exploration activities (e.g. roleplaying, personal reaction papers, values clarification exercises, participation in groups). Involvement in one's own counseling is encouraged. Opportunities are available at University Counseling Services and through referral to outside sources. Students are encouraged to join professional organizations, to attend workshops and conferences, and to become involved in the counseling profession at the state and national levels.

Student performance is reviewed at designated points throughout the program (retention review). The purpose of review is to identify any difficulties the student may be experiencing in the areas of academic achievement and/or skill development, and to develop appropriate plans for remediation. For example, midway through programs students apply to enroll in CSAP686 Counseling Practicum I. At this point program faculty evaluate the readiness of all applicants to begin working with clients in the counseling laboratory.

## Dismissal

After formal review, program faculty may recommend that a student leave the program. This may occur when student goals and student academic behavior appear incompatible with program goals. In addition, the Graduate School may dismiss students for academic reasons. If a student's cumulative GPA is less than a 3.0 at the end of any semester, the student is placed on academic probation. The student then has two periods of enrollment to remove this probationary status. If the probationary status is not removed, the student is dismissed from the University for academic reasons.

Students in counseling programs are expected to conduct themselves in a responsible and professional manner at all times. The student, as a professional-in-training, must adhere to the code of ethics of the American Counseling Association (ACA). A copy of these standards is distributed with the student handbook for Counseling programs. Because of the nature of the counseling profession, the ethical behavior and development of students is considered and reviewed by the faculty through its dismissal policy. Behavior, personal characteristics or personal issues should not interfere with the capacity of the student to be a helping professional (see student handbook). A full description of the student dismissal policy is contained in the student handbook for counseling programs.

## Exit/Graduation

Criteria for exit from any counseling program include, but are not limited to, the following:

1. Successful completion of all course work on the program of study with a minimum GPA of 3.0.
2. Successful completion of all required practica, fieldwork and internship.
3. Successful completion of required culminating seminars that include portfolio review and professional planning.

## MASTER OF ARTS in School Counseling (SCSL)

The school counseling program is a 48 -hour master's degree program that provides competencies and proficiencies for entry-level positions as school counselors in elementary, middle-junior high, secondary and adult education settings. Upon completion of the graduate program of study, students are eligible to apply for K-12 school counselor endorsement of their valid Michigan teaching certificates. The school counseling program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The program meets the academic and internship requirements for limited licensure as a professional counselor (LLPC) in the state of Michigan. Information on the post-master's requirements for full licensure as a professional counselor (LPC) is available in the student handbook for counseling programs. Candidates selected for this program are expected to make a major commitment to their graduate training and to enroll in course work on a regular basis. A 600 -hour internship is required, and students must be willing to make the necessary adjustments to complete this internship commitment.

## Curriculum

The following outline describes the general program requirements for the 48-hour school counseling program.

[^16]COUN505 Counselor Development: Basic Skills (3 hrs)
COUN508 Theories of Counseling (3 hrs)
COUN510 Counselor Development: Counseling Process (3 hrs)
COUN520 Assessment in Counseling ( 3 hrs )
COUN530 Career Development and Information Services (3 hrs)
COUN540 Group Process I (3 hrs)
COUN571 Cross-cultural Counseling (3 hrs)
COUN622 Diagnosis and Treatment Planning in Counseling (3 hrs)
School Counseling Specialization Area (required)
COUN612 The School Counselor (2 hrs)
COUN650 Organization and Administration of Counseling Services (2 hrs)
COUN696 Seminar: Ethical, Legal \& Professional Issues in School Counseling (2 hrs)
Supervised Counseling Experiences (required)
COUN683/684/685/686 Counseling Practicum I (4 hrs)
COUN785/786/787/788 The Counseling Internship (4 hrs)
Elective Courses
In consultation with their adviser, students may select elective courses to enhance the student's professional growth. Courses may be selected from this list or selected from other COUN courses that meet this objective.

COUN515 Crisis Intervention (2 hrs)
COUN572 Counseling Parents (2 hrs)
COUN575 Substance Abuse Counseling I ( 2 hrs )
COUN590 Special Topics ( 1 hr )
COUN591 Special Topics ( 2 hrs )
COUN652 The Counselor as Consultant ( 2 hrs )
COUN687 Counseling Practicum II (3 hrs)
SPGN510 Students with Disabilities in the General
Education Classroom (3 hrs)

## Cognate Courses

Required cognate courses selected in consultation with the adviser if content not in baccalaureate program.

EDPS677 Methods in Quantitative Research (3 hrs)

## Elective Courses

In consultation with their adviser, students may select cognate electives to enhance their professional growth.

Program Total .. 48 hours

## MASTER OF ARTS in College Counseling (CLCL)

The College Counseling Program is designed for students who are interested in working as professional counselors in institutions of higher education. It is a 49-credit hour program leading to professional counseling licensure in Michigan. Candidates selected for this program are expected to make a major commitment to graduate training and to enroll in coursework on a regular basis. The program includes a 600 clock-hour supervised counseling internship experience. The College Counseling Program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), a specialized accrediting body that evaluates and grants accreditation to graduate-level programs in professional counseling. The program meets the academic and internship requirements for limited licensure as a professional counselor (LLPC) in the state of Michigan. Information on full licensure as a professional counselor is available in the student handbook for Counseling Programs.

## Curriculum

The following outline describes the general program requirements for the 49-hour college counseling program.

## Concentration Courses (COUN) <br> Basic Counseling Core (required) <br> COUN502 Helping Relationships: Basic Concepts and Services (3 hrs)

COUN505 Counselor Development: Basic Skills (3 hrs)
COUN508 Theories of Counseling ( 3 hrs )
COUN510 Counselor Development: Counseling Process (3 hrs)
COUN520 Assessment in Counseling (3 hrs)
COUN530 Career Development and Information Services (3 hrs)
COUN540 Group Process I (3 hrs)
COUN571 Cross-cultural Counseling (3 hrs)
COUN622 Diagnosis and Treatment Planning in
Counseling (3 hrs)
Supervised Counseling Experiences (required)
COUN683/684/685/686 Counseling Practicum I (4 hrs)
COUN785/786/787/788 The Counseling Internship (4 hrs)
College Counseling Specialization Area (required)
COUN550 Introduction to Student Affairs in Higher Education (3 hrs)
COUN551 Contemporary College Students (3 hrs)
COUN692 Seminar: Ethical, Legal \& Professional Issues in College Counseling (2 hrs)
Elective Courses (3 hrs minimum)
COUN515 Crisis Intervention (2 hrs)
COUN591 Special Topics (2 hrs)
COUN631 Dynamics of Life Development (2 hrs)
COUN655 Student Development Theory (3 hrs)

## Cognate Areas

Required Course
EDPS677 Methods in Quantitative Research (3 hrs)
Program Total

## MASTER OF ARTS in Community Counseling (CCSL)

The Community Counseling program is a 49-hour master's degree program of studies that is intended for students who seek licensure as professional counselors and employment in community agency settings. Candidates who are selected for this program are expected to make a major commitment to their graduate-level training and education as well as to enroll in course work on a regular basis. The program includes a 600 -hour supervised counseling internship experience. The Community Counseling program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), a specialized accrediting body that evaluates and grants accreditation to graduate-level programs in professional counseling. The program meets the academic and internship requirements for limited licensure as a professional counselor (LLPC) in the state of Michigan. Information on the post-master's requirements for full licensure as a professional counselor (LPC) is available in the student handbook for Counseling programs.

## Curriculum

The following outline describes the general program requirements leading to a minimum of 49 hours of graduate study for those students seeking the master's degree in community counseling.

[^17]COUN660 Community Resources in Counseling (2 hrs)
COUN694 Seminar: Ethical, Legal and Professional Issues in Community Counseling (2 hrs)
Supervised Counseling Experiences (required)
COUN683/684/685/686 Counseling Practicum I (4 hrs)
COUN785/786/787/788 The Counseling Internship (4 hrs)
Elective Courses ( 5 hrs minimum)
Students select electives with their adviser to enhance their professional growth. They may choose from this list or choose other COUN courses that meet this objective.

COUN515 Crisis Intervention ( 2 hrs )
COUN572 Counseling Parents (2 hrs)
COUN575 Substance Abuse Counseling I (2 hrs)
COUN590 Special Topics in Guidance and Counseling ( 1 hr )
COUN591 Special Topics in Guidance and Counseling (2 hrs)
COUN687 Counseling Practicum II (3 hrs)
Cognate Courses
Required Course
EDPS677 Methods in Quantitative Research (3 hrs)
Elective Courses
For many students, six hours of elective course work will not be enough to train them to work in the settings in which they will seek employment. It is strongly recommended that students take elective course work in substance abuse counseling, marriage/family counseling and grant/proposal writing. In addition, students who have not had course work in psychology (i.e. abnormal psychology, theories of personality, etc.) will be encouraged to do so. It is possible that some students will want to develop a program that contains more than 48 hours. The student and his/her adviser will carefully review the student's education and experience in planning the program of study.

Program Total 49 hours

## GRADUATE CERTIFICATE In Helping Interventions in a Multicultural Society (HIMS)

Potential HIMS certificate program applicants will be required to fulfill the following admission requirements which reflect those criteria required for the counseling master's degree program. These include:

1. Applicants must be program admitted in a valid graduate program in the helping services, or have completed such a program with a minimum GPA of 3.0 on a 4.0 scale.
2. International students must submit scores on the Test of English as a Foreign Language (TOEFL) of 550 and 5 on the Test of Written English (TWE).
3. Applicants must submit recommendations from two professional supervisors and/or supervising professors that address the quality of the applicant's professional work. Applicants may receive these forms from the department office. Recommendation forms are due with the graduate school application.
4. Applicants must submit a résumé that details their professional and educational experiences.
5. On the graduate application, students must complete a letter of intent relevant to the certificate program. This letter should address the applicant's experiences and knowledge in working with culturally diverse populations, their rationale for seeking additional training and their goals after completing such training.
[^18]Elective Courses. 4 hours<br>Select four hours of elective courses from the following: COUN590 Special Topics ( 1 hr )<br>EDLD509 Educational Leadership in a Pluralistic Society (3 hrs)<br>CTAC511 Readings in Interracial and Interethnic Communication (2 hrs) CTAC579 Studies in Intercultural Communication (3 hrs) PSY542 Women and Mental Health (2 hrs) SOCL502 Racial and Cultural Minorities (2 hrs)

Certificate Total.

## Post-Master’s Certificate Program for School Counselor Licensure (SCSL)

The purpose of the post-master's certificate for school counselor licensure is to provide a high quality training program designed specifically to assist counselors in gaining the competencies and credentials necessary to earn the School Counselor License in Michigan. To be considered for admission, candidates must provide evidence of each of the following criteria:

1. Applicants must have graduated from a regionally accredited institution of higher education with a master's degree in counseling within the past 15 years.
2. Evidence of academic aptitude for continued graduate-level study as evidenced by a GPA of 3.3 on their previously completed advanced degree.
3. International students must meet one or more of the following additional criteria:
a. A score of 550 (total) on the Test of English as a Foreign Language (TOEFL), a score of 230 on the Test of Spoken English (TWE). (Additional coursework in composition may be required.)
b. A score of 80 on the Michigan English Language Ability Battery (MELAB) and a rating of at least 3.0 on the oral interview portion of the MELAB. (Additional coursework in composition may be required). These test must have been taken within the past five years.
4. Statement of intent: A one-page statement focusing on the applicant's motivation and rationale for seeking admission to the program as well as his or her background and goals related to professional studies.
5. Résumé: A focused, one-page summary of program-relevant, educational, career and/or life experiences.
6. A minimum of 3-5 years of documented work experience, the majority of which involves working with school-aged children or adolescents. This experience may consist of paid, professional roles or structured volunteer experiences in organized work settings and should be focused on improving the mental health, behavior, academic success or social skills of the children.

## Required Courses <br> $\qquad$ <br> 8-10 hours <br> COUN612 The School Counselor (2 hrs) <br> COUN650 Organization and Administration of Guidance Services (2 hrs) <br> COUN696 Seminar in School Counseling ( 2 hrs ) <br> $\dagger$ COUN786/787/788/789 Internship in School Counseling (300-600 hours) (2-4 hrs)

Elective Courses......................................................................... 4 hours
Four hours of elective courses to be chosen in consultation with an adviser.
Program Total 12-14 hours

## Note:

$\dagger$ For candidates who have already completed a 600-hour internship as part of their previous master's degree, only 300 hours of internship in a school setting will be required.

# Department of Special Education 

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See page 241 for course descriptions.

The curricula within the Department of Special Education have been revised. All students are urged to meet with their adviser before registering to verify enrollment in appropriate course work.

The Department of Special Education at Eastern Michigan University offers graduate programs leading to a specialist of arts degree, a master of arts degree and/or state endorsement/approval in most fields of specialization in special education. With adviser approval, persons participating in these programs may utilize a variety of approaches and experiences in fulfilling the needed requirements. These avenues of learning may include course work, field studies, workshops, independent study, internships, practica, seminars and/or research projects.

Graduate study in the Department of Special Education includes the following program options:

1. Non-degree post-baccalaureate study for certified teachers seeking initial or additional special education endorsements and/or approvals. Students must be admitted to the Graduate School and the Department of Special Education to pursue endorsement/approval sequences.
2. Master of Arts degree in Special Education with Teacher Certification (SEM-T) students seeking both teacher certification and a special education endorsement. Students must be admitted to the Graduate School with conditional admission to the Department of Special Education.
3. Master of arts degree in special education with an endorsement or a program in:

> Emotional Impairment
> Cognitive Impairment
> Physical Impairment and other Health Impairment
> Visual Impairment
> Hearing Impairment
> Special Education - General
4. Master of arts degree in special education with a program in learning disabilities (available only to certified teachers as well as teachers with certification and initial endorsement in special education);
5. Master of arts degree in special education-speech/language pathology;
6. Specialist of arts degree in special education, with program in special education administration or curriculum/assistive technology development.

## Mission

The mission of the Department of Special Education is to create an exemplary educational environment to facilitate the acquisition of knowledge and skills and to encourage the intellectual curiosity and creativity of its students. Students will be prepared as professionals who deliver habilitative/ rehabilitative service to persons with special needs and their families. Graduates of the Department of Special Education will provide leadership for the profession in the 21st century.
Objectives
The objectives for the student are:

1. To develop a humane, comprehensive, viable and scientifically defensible philosophical foundation that will guide personal and professional behavior;
2. To extend and refine knowledge of disabilities and to apply this new knowledge base to understanding more fully the implications of disabilities to individuals with disabilities, their families and society;
3. To improve existing skills and to acquire new skills in the identification, diagnosis and use of prescriptive teaching methods associated with various disabilities;
4. To understand, compare, analyze and synthesize a variety of therapeutic, curricular and continuum of service models, instructional systems and theoretical constructs used in the care and treatment of persons with disabilities;
5. To acquire a working knowledge of the way philosophical positions, psychosocial and cultural factors, economic events, legal mandates and political forces impinge upon and shape benefits, rights, services and programs for persons with disabilities;
6. To become proficient in spoken and written communication and be able to adapt to appropriate levels in student, parent and professional communication;
7. To acquire the knowledge, reflective decision-making ability and other skills necessary to perform in a variety of leadership, administrative and supervisory roles in providing services and programs for persons with disabilities; and
8. To understand, conduct and use research for problem solving and professional growth.

## Courses of General Interest

In addition to the more specific courses that are offered for special education majors, the graduate program offers a number of general courses that are open to regular classroom teachers and other non-majors. These courses are designed to provide the student with a better understanding of the child with learning challenges who might be found in any classroom.

## Dismissal from Program Policy

A student may be subject to dismissal from graduate endorsement or degree programs in this department if the student:

1. Does not maintain a 3.0 (B) cumulative GPA overall and in special education courses (graduate and undergraduate) for two successive enrollment periods;
2. Does not demonstrate by performance reasonable aptitude, maturity, stability, skill and understanding necessary for success in the professional field of special education; and
3. Does not demonstrate by performance the ability to build adequate interpersonal and professional relationships.

A student identified as being at risk for dismissal from the endorsement or degree programs will have the opportunity to meet with faculty in the program area to develop a plan for correction of any deficiency. The opportunity to correct deficiencies usually will not be extended beyond two enrollment periods.

The continuance or termination decision will be made by the faculty in the program area. Students may request a meeting with the faculty to apprise them of extenuating circumstances. The faculty decision will be final. The decision will be transmitted to the student in writing by the department. If the student is dismissed from the department's program, the Graduate School will be notified to change the student's admission status from degree admission status to that of a self-improvement student.

## SPECIALIST IN ARTS in Special Education (SP)

## Program Advising

The Department of Special Education offers a specialist in arts degree designed to prepare highly qualified leadership personnel in two general areas of study:

1. Administration and supervision of special education programs; and
2. Curriculum development/assistive technology.

## Model

Eastern Michigan University's advanced professional education programs support inquiry, advocacy and leadership in education for a diverse and democratic society. In addition, the master's level programs in the Department of Special Education produce professionals with the comprehensive knowledge, skills and attitudes to deliver a continuum of habilitative/rehabilitative services to persons with special needs, and to their families, within a multicultural society.

## Admission Requirements

The graduate student seeking admission to this degree program is required to:

1. Be admitted to the Graduate School;
2. Possess a master's degree from a regionally accredited college or university, with a minimum 3.3 GPA;
3. Have three years of documented professional experience in special education;
4. Have an endorsement in one area of special education;
5. Submit two letters of recommendation to include: one letter verifying three years of successful professional experience in special education, and one letter from a faculty member or other person knowledgeable of candidate's academic competence;
6. Have a successful personal interview;
7. Achieve an acceptable score on the Graduate Record Examination; and
8. (International students must) provide a score of 90 on the Michigan English Language Assessment Battery (MELAB).

## Program Requirements

The program requirements for the specialist in arts degree include:

1. Completion of a minimum of 33 hours beyond the master's degree;
2. Achievement of an overall GPA of $3.3(\mathrm{~B}+)$ or better;
3. Recommendation from the specialist's degree committee for continuance in the program. This is to be done upon completion of 12-15 hours of course work, and before internship and thesis or independent study. The committee will consider GPA, faculty recommendations, demonstrated competence in academic and professional work, and rate of progress in the program. Students must demonstrate behaviors that indicate stability, maturity, understanding and aptitude as judged necessary for predicted success as a specialist in special education administration/ curriculum;
4. Successful completion of an internship;
5. Achievement of passing scores on oral and written examinations near the completion of the program; and
6. Completion of all other requirements of the Graduate School.

## Exit Criteria

Criteria are to meet all the objectives listed previously for graduate study in special education, as demonstrated by successful completion of:

1. All course work on program (minimum GPA of 3.3);
2. Approved internship;
3. Thesis or independent study; and
4. Oral and written examinations.

## Specialist Program

Required Courses. $\qquad$ 12 hours
SPGN615 Social Psychology of Disability: Family, School and Society (3 hrs)
SPGN632 Collaborative Consultation in Special Education (2 hrs) SPGN619 Administration and Supervision of Special Education (2 hrs) SPGN719 Advanced Seminar: Special Education Administration (2 hrs) EDPS677 Methods in Quantitative Research (3 hrs)
Concentration Courses ............................................................ 13 hours Select from either option I or option II:

Option I: Administrative Strand Thirteen hours selected in consultation with the graduate adviser.

# Option II: Curriculum/Assistive Technology Strand 

Thirteen hours selected in consultation with the graduate adviser.

Culminating Experiences<br>$\qquad$ 8 hours Required by all specialist's degree candidates:<br>SPGN789 Specialist Internship in Special Education (4 hrs)<br>Thesis/Independent Study (4 hrs)

Program Total .33 hours

## MASTER OF ARTS in Special Education

Through the Graduate School of Eastern Michigan University, the Department of Special Education offers a master of arts degree that encompasses the range and depth required to accommodate contemporary programs and service delivery systems. The program is designed to allow maximum flexibility in meeting the needs of individual students while maintaining the basic academic integrity implicit in a graduate program.

## Model

Eastern Michigan University's advanced professional education programs develop leaders who demonstrate reflective thought and scholarship within the context of a culturally diverse society. In addition, the master's-level programs in the Department of Special Education produce professionals with the comprehensive knowledge, skills and attitudes to deliver a continuum of habilitative/rehabilitative services to persons with special needs, and to their families, within a multicultural society.

## Admission Requirements

The graduate student seeking admission to the master of arts degree program in the Special Education Department is required to:

1. Be admitted to the Graduate School;
2. Have a valid teaching certificate; (Students who do not have a teaching certificate must complete requirements as outlined in the SEM-T program, described in the following section.)
3. Achieve acceptable scores on the Graduate Record Examination as required by the Department of Special Education;
4. Submit two outside letters of recommendation regarding professional competence for admission to the program;
5. Be recommended for acceptance by a faculty member (this may involve a personal interview); and
6. (International students must) provide a score of 90 on the Michigan English Language Assessment Battery (MELAB).

Admissions and program requirements for master of arts programs in learning disabilities and speech language pathology are described separately in subsequent sections.

## Program Requirements

The graduate student seeking a master of arts degree through the Department of Special Education must:

1. Complete a minimum of 33 to 37 hours of approved graduate credit with a minimum 3.0 GPA;
2. Complete an approved master's degree program that has been planned with a special education graduate adviser;
3. Complete the degree requirements within six years of enrolling for the first course applicable to the degree program;
4. Receive a recommendation from the area faculty committee for continuance in the program. This is done upon completion of 12 to 15 hours of courses, and before internship/practicum. The committee will consider GPA, faculty recommendations, demonstrated competence in academic and professional work, and rate of progress in the program.
5. Meet all other requirements of the Graduate School.

## Exit Criteria

Exit criteria involve achievement of the objectives for graduate study in special education listed previously, as demonstrated by:

1. Successful completion of all course work on program (minimum GPA of 3.0);
2. Successful completion of required practica/internship; and
3. Successful completion of thesis, if pursuing the thesis option, or other culminating experience, which may include but not be limited to comprehensive oral or written examination, portfolio or other product, performance or exhibit.

Special Education Graduate Core Courses ................................. 11 hours SPGN621 Law and Public Policy for Individuals with Disabilities (3 hrs)
SPGN630 Integrated Curriculum and Educational Programming for Mathematics and Motor Development (3 hrs)
SPGN632 Collaborative Consultation in Special Education (2 hrs)
SPGN661 Advanced Assessment and Decision-Making (3 hrs)
Program Courses
..7-25 hours
Select courses within the following programs:
Emotional impairment
Cognitive impairment
Physical impairment and other health impairment
Visual impairment
Hearing impairment
General special education

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Cognate Courses.
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``` 3-6 hours EDPS677 Methods in Quantitative Research (3 hrs)
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Program Total 33-37 hours

Programs within the department of Special Education include emotional impairment, cognitive impairment, physical impairment and other health impairment, visual impairment, hearing impairment and general special education (this last program does not result in any special education endorsement from the state of Michigan). If endorsement in any area of special education is being sought, the appropriate endorsement sequence must be completed. It is also possible to complete a state-approval sequence (e.g., supervisor of special education) as part of the master of arts program of study.

Students choosing to complete an independent study as part of the master of arts program must complete EDPS677, SPGN697 and SPGN699. Students may elect to write a thesis as part of the master of arts program. If pursuing the thesis option, students must complete cognates EDPS621 Statistical Applications in Educational Research (2 hrs) and EDPS677 Methods in Quantitative Research (3 hrs). The student should elect SPGN690 and SPGN692 Master's Thesis for a total of four credit hours.

## MASTER OF ARTS in Learning Disabilities (LD)

Students accepted into the graduate program in learning disabilities may elect a teaching endorsement and a master of arts degree. The learning disability endorsement is $\mathrm{K}-12$.

## Model

Eastern Michigan University's advanced professional education programs support inquiry, advocacy and leadership in education for a diverse and democratic society. In addition, the master's-level programs in the Department of Special Education produce professionals with the comprehensive knowledge, skills and attitudes to deliver a continuum of habilitative/rehabilitative services to persons with special needs, and to their families, within a multicultural society.

## Admission Requirements

The graduate student seeking admission to a learning disabilities master of arts degree in the Department of Special Education is required to:

1. Possess teacher certification;
2. Meet Graduate School admission requirements including graduation from a regionally accredited college or university;
3. Submit two letters of recommendation to include: one letter verifying professional competence, and one letter from a faculty member or other person knowledgeable of candidate's academic competence;
4. Achieve acceptable scores on the Graduate Record Examination;
5. Have a successful personal interview with an assigned adviser; and
6. (International students must) provide a score of 90 on the Michigan English Language Assessment Battery (MELAB).

## Program Requirements

The graduate student seeking a master of arts degree in learning disabilities through the Department of Special Education must:

1. Successfully complete a minimum of 37 hours of approved graduate credit as outlined on an approved master's degree program that has been planned with a program adviser;
2. Successfully complete an approved master's degree program that has been planned with a special education graduate adviser;
3. Successfully complete a competency examination at 90 percent or better. This is a mid-program progress assessment and must be completed prior to practicum experience;
4. Have on file with an adviser two evaluations of teaching effectiveness/ professional competence. These evaluations are to be completed by supervisors/administrators in public or private schools at the conclusion of the internship experience;
5. Successfully complete a supervised practicum experience;
6. Successfully complete the degree requirements within six years of enrolling for the first class applicable to the degree program; and
7. Meet all other requirements of the Graduate School.

## Exit Requirements

Exit criteria include demonstration of acceptable levels of performance in the following areas:

1. Ability to carry out suitable procedures for assessment of listening, thinking, talking, reading, spelling, writing, mathematics or other skill deficiencies;
2. Ability to specify in behavioral terms instructional objectives that are appropriate to the skill needs and entry-level characteristics of the individual student;
3. Ability to set up and maintain conditions and procedures of instruction suitable to the learning goals set for the individual student;
4. Ability to assess instructional outcomes in terms of the student's behavior change and use this data in the formulation of an ongoing instructional plan adjusted to changed student conditions;
5. Ability to use appropriate techniques with the student to help develop the self-management skills required for constructive social participation and independent learning; and
6. Ability to function as a member of interdisciplinary teams and maintain effective liaison with parents and others working with the student.

Acceptable levels will be determined by course grades, GPA, mid-program competency examination, practicum evaluations and performance in research colloquium, including production at the end of practicum of a comprehensive written document which demonstrates the understanding, synthesis of knowledge and the practical applications of diagnostic-prescriptive planning for K-12 students with disabilities. This product is considered a culminating activity for the degree program.

## Track A

Graduate students who have earned a teaching certificate and an initial endorsement in an area of special education will be required to meet current admission standards which include:

- Acceptable scores on the Graduate Record Examination
- 2.5 undergraduate GPA
- Valid Michigan Teaching Certificate
- An endorsement in an area of special education
- Two letters of recommendation
- Other graduate school requirements as outlined in catalog.

Upon completion of the program, students in this track will have earned a M.A. degree, an endorsement in learning disabilities and completed a concentration in another special education field (i.e. cognitive impairment, autistic impairment, emotional impairment, etc.).

Coursework for students in Track A consists of 37 hours of core courses, methods courses, learning disability-specific courses and electives.

## Core Courses ........................................................................... 12 hours <br> SPGN621 Law and Public Policy for Individuals with Disabilities (3 hrs) <br> SPLI678 Assessment and Advanced Diagnostic Prescriptive Programming for Students with Learning Disabilities (4 hrs) <br> EDPS677 Methods in Quantitative Research (3 hrs) <br> SPGN525 Classroom Management and Social Skill Development for Students with Disabilities (2 hrs)

## Methods Courses ....................................................................... 6 hours <br> SPGN630 Integrated Curriculum and Educational Programming for Mathematics and Motor Development (3 hrs)

SPLI672 Integrated Curriculum: Linguistics and Language Arts (3 hrs)
Learning Disabilities Concentration Courses ............................... 8 hours
SPLI468G Education of Children with Learning Disabilities (must
be taken for graduate credit) (2 hrs)
SPLI693 Practicum in Learning Disabilities (4 hrs)
SPLI712 Research Colloquium: Learning Disabilities (2 hrs)
Elective and/or Cognate Courses.

11 hours
Program Total ..... 37 hours

## Track B

Graduate students with a teaching certificate, but no special education endorsement, will be admissible to the Learning Disabilities program if they meet the same requirements for admission as delineated in Track A, with the exception of the requirement for an initial endorsement in a special education area. Therefore, Track B is designed to be attractive to those certified teachers desiring to enter the special education field but who have no previous coursework in special education. Track B will tap a new pool of prospective students and will help address the current shortage of credentialed teachers in the area of learning disabilities. Upon completion of the proposed program students in Track B will have completed the required coursework for the M.A. degree and an endorsement in learning disabilities.

Coursework for students in Track B consists of 36 hours of Deficiencies, Core courses, Methods Area, and Learning Disability area courses.

## Core Courses .12 hours <br> SPGN621 Law and Public Policy for Individuals with Disabilities (3 hrs) <br> SPLI678 Assessment and Advanced Diagnostic Prescriptive Programming for Students with Learning Disabilities (4 hrs) <br> EDPS677 Methods in Quantitative Research (3 hrs) <br> SPGN525 Classroom Management and Social Skill Development for Students with Disabilities (2 hrs)

Methods Courses 6 hours
SPGN630 Integrated Curriculum and Educational Programming for Mathematics and Motor Development (3 hrs)
SPLI672 Integrated Curriculum: Linguistics and Language Arts (3 hrs)

```
Learning Disabilities Concentration Courses
```

$\qquad$

``` 8 hours
SPLI468G Education of Children with Learning Disabilities (must be taken for graduate credit) ( 2 hrs )
SPLI693 Practicum in Learning Disabilities (4 hrs)
SPLI712 Research Colloquium: Learning Disabilities (2 hrs)
```


## Deficiencies.

$\qquad$

``` 11 hours
SPGN481 Assistive Technology in Special Education (2 hrs)
SPGN510 Students with Disabilities in the General Education Classroom (3 hrs)
SPGN615 Social Psychology of Disability: Family, School and Society (3 hrs)
SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
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Program Total $\qquad$ 37 hours

## MASTER OF ARTS in SpeechLanguage Pathology (SPLP)

Students who seek admission to the graduate program in speech-language pathology may elect either a teacher certification and health care combined track or a health care only track. See a graduate adviser for teacher certification additional requirements. Those who do not have undergraduate degrees in speech-language pathology must complete the undergraduate deficiencies. Students must consult a graduate adviser in speech-language pathology before enrolling in major courses. Admission is competitive.

## Model

Eastern Michigan University's advanced professional education programs develop leaders who demonstrate reflective thought and scholarship within the context of a culturally diverse society. In addition, the master's-level programs in the Department of Special Education produce professionals with the comprehensive knowledge, skills and attitudes to deliver a continuum of habilitative/rehabilitative services to persons with special needs, and to their families, within a multicultural society.

## Admission Requirements

In addition to the requirements previously listed, with the exception of having a valid teaching credential, a student applying to the speech-language pathology program, and who has an undergraduate degree in speech-language pathology, must:

1. Have a minimum 3.0 GPA in the undergraduate major, and an overall GPA of 3.0 ; and
2. Submit two letters of recommendation from either:
a. A clinic supervisor and a professor in the undergraduate major area of study; or
b. Two professors in the undergraduate major area of study.

## NOTE:

A student applying to the speech-language pathology program, and who does not have an undergraduate degree in speech-language pathology, in addition to the requirements listed above, with the exception of having a valid teaching credential, must:

1. Have a minimum 3.0 GPA in the undergraduate major, and an overall GPA of 3.0;
2. Submit two letters of recommendation to include: one letter from a professor in the undergraduate major area of study, and one letter from a professional employer; and
3. (International students must) have a score of 100 on the Michigan English Language Assessment Battery (MELAB).

## Program Requirements

The program requirements for attaining a master's degree in speech-language pathology differ in some aspects from those of the Graduate School in that:

1. Only six hours of graduate transfer credit will be accepted;
2. All candidates must meet the clinical and academic requirements for certification of the American Speech-Language-Hearing Association prior to receiving their degrees;
3. All candidates must complete a minimum of 36 hours of approved graduate credit;
4. All candidates must pass major courses with a grade of B- or better; and
5. All candidates must be recommended by the speech-language faculty committee for continuance in the program. This is to be done upon completion of 12-15 hours of course work in the program. The committee will consider GPA, faculty recommendations and demonstrated competence in academic and clinical work. Students must demonstrate behaviors that indicate stability, maturity, understanding and aptitude as judged necessary for predicted success as a speechlanguage pathologist.

## Exit Criteria

To be eligible for graduation and receipt of the master's degree, the student must:

1. Complete required course work as described;
2. Submit a completed ASHA application; and
3. Submit copies of all clinical practica logs.

## Curriculum

The following courses are offered to students for completion of the master's degree program and are considered to be a standard program of study. Students who transfer from other universities should consult their academic adviser concerning equivalencies.

Required Courses in Speech-Language Pathology ...................... 28 hours
SPSI508 Multicultural Issues in Intervention for Communication Disorders (2 hrs)
SPSI516 Introduction to Graduate Study in Speech-Language Pathology (3 hrs)
SPSI555 Neuroanatomy and Physiology for the Speech-Language Pathologist (2 hrs)
SPSI568 Diagnostic Methods: Assessment of Speech and Language Disorders in Children ( 3 hrs )
SPSI578 Diagnosis and Treatment of Audiometric Disorders (3 hrs)
SPSI607 Early Intervention for Speech and Language Impaired Children (3 hrs)
SPSI612 Motor Speech Disorders (2 hrs)
SPSI614 Aphasia (3 hrs)
SPSI618 Language Disorders in School-age Children (3 hrs)
SPSI620 Consulting and Interviewing in Speech Pathology (2 hrs)
SPSI622 Augmentative Communication (3 hrs)
SPSI624 Acquired Neurogenic Cognitive-Communication Disorders (3 hrs)
SPSI625 Dysphagia (2 hrs)
SPSI694 Professional Issues in Speech-Language Pathology (2 hrs)
SPSI528 Clinical Practice in Speech-Language Pathology I (2 hrs)
SPSI538 Clinical Practice in Speech-Language Pathology II (2 hrs)
SPSI687 Clinical Internship in Speech-Language Pathology I (4 hrs)
SPSI688 Clinical Internship in Speech-Language Pathology II (2 hrs)
SPSI689 Public School Internship in Speech-Language Pathology (4 hrs)
Program Total
41-43 hours

## Curriculum

## Courses Required for a Teaching Subject Major/Minor

Students must complete a teaching subject major or minor (20 to 24 hours). See the undergraduate catalog for approved minors. Note: This is a requirement if the student has not already completed a major or minor appropriate to the level of certificate sought during completion of the bachelor's degree.

Courses Required for Teacher Certification. . 10 hours
EDPS325 Life Span Human Growth and Development (4 hrs) EDUC499 Student Teaching (regular education) ( 6 hrs )

```
Elementary
16-17 hours
    CURR304 Curriculum and Methods: Elementary (3 hrs)
    RDNG300 Early Literacy (3 hrs)
    RDNG310 Literacy Across the Curriculum in the Intermediate
        Grades (3 hrs)
    MATH581 Modern Mathematics Methods, K-6 (2 hrs)
    BIOL303 Life Science for Elementary Teachers (3 hrs
    One course from the following:
        GEOG348 Teaching Social Studies in Elementary
            Schools (3 hrs)
        GEOG571 Teaching of Social Studies (2 hrs)
Secondary
    9 hours
    CURR305 Curriculum and Methods: Secondary (3 hrs)
    RDNG311 Teaching Reading in the Secondary School (3 hrs)
    Methods course in teaching subject (3 hrs)
```


## Courses Required for Endorsement

Students must complete all special education core courses and course requirements for the specific program area ( $\mathrm{HI}, \mathrm{EI}, \mathrm{CI}, \mathrm{POHI}$ or VI ) as listed in the following section regarding endorsement.

## Courses in General Education

Undergraduate transcripts will be reviewed to determine completion of hours to be credited toward meeting a required 40 hours of general or liberal education. Additional course work may be necessary to meet this 40-hour requirement.

## Endorsement/Approval Sequence

Certified teachers wishing to qualify for teaching in an area of special education may enroll in an endorsement sequence at the graduate level. (Those seeking both teacher certification and endorsement see the "Special Education Master's Program with Teacher Certification (SEM-T)" section, which follows.) The first endorsement sequence for a teacher holding non-special education teaching credentials includes a combination of graduate and undergraduate courses. The completion of the endorsement sequence will permit a student to teach in a specific area of disability in grades K-12. Each endorsement sequence accommodates the requirements established by the Michigan Department of Education.

Endorsements are available for teachers of students with emotional impairment, teachers of students with cognitive impairment, teachers of students with hearing impairment, teachers of students with physical impairment and other health impairment, and teachers of students with visual impairment. Endorsements are also available in the areas of learning disabilities (which is awarded only as a second special education endorsement), and speech and language pathology, only as part of a master's degree program.

Approval sequences are available in the areas of supervisor of special education and director of special education, and for teachers of physical education for students with disabilities as well as early childhood special education teachers. Course work in other departments (Educational Leadership; Health, Physical Education, Recreation and Dance; Teacher Education) is typically involved in completing these sequences.

Students must be free from any probation, administrative or academic, before an internship or practicum experience is approved. It is important for students to realize that the endorsement/approval sequence is independent of a degree program. The minimum degree requirements do not guarantee endorsement/approval, and the meeting of endorsement standards should not be construed as the completion of degree requirements.

Nine hours of approved 400 -level courses may be upgraded and credited toward a master's degree with adviser approval; otherwise, all undergraduate courses listed in endorsement sequences are considered undergraduate deficiencies, not credited toward graduate degrees.

## Special Education Master’s Program with Teacher Certification (SEM-T)

## Admission Requirements

1. The student applying for an endorsement in specific special education areas must meet the admissions requirements specified under the master of arts degree.
2. Students must be admitted to the Department of Special Education prior to taking 400- and graduate-level requirements.
3. The student applying for an approval sequence as a special education director must meet the admission requirements of the specialist's degree and be admitted as a specialist's degree student.

## Program Requirements (Areas of Exceptionality Except Speech-Language

 Pathology)Graduate students seeking endorsements must:

1. Complete an appropriate program of study as planned with a graduate adviser for the program area.
2. Meet all other requirements of the Graduate School.

## Exit Criteria

Exit criteria involve achievement of the objectives for graduate study in special education listed previously, as demonstrated by:

1. Successful completion of all course work on program (minimum GPA of 3.0).
2. Successful completion of required practica/internship.

## Curricula

A description of initial endorsement sequences follows. Endorsement sequences for those already endorsed in one area of special education, but seeking additional endorsement(s) consist of different courses than listed here. Students should consult the graduate adviser for the area.

An initial endorsement sequence generally consists of the following core special education classes: (courses marked with an asterisk require admission to the professional preparation program; students with teaching certificates will be admitted to the teacher education program at the time of special education program admission)

## Special Education Core Courses

PSY101 General Psychology (3 hrs)
SPGN510 The Exceptional Child in the Regular Classroom (3 hrs)
PHED578 Motor Development and Learning ( 2 hrs )
*SPLI673 Language: Acquisition, Disorders, Evaluation (3 hrs)
*SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
*SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities (3 hrs)
*SPGN615 Social Psychology of Disability: Family, School and Society (3 hrs)
*SPGN481 Assistive Technology in Special Education (2 hrs)
*SPGN689 Supervised Internship in Special Education (6 hrs)
*SPGN485 Curriculum, Programs and Services for Adolescents and Young Adults with Disabilities (not required in emotionally impaired) (2 hrs)
*SPGN486 Transition and Related Field Experiences/ Adolescents and Young Adults with Disabilities (not required in emotionally impaired) (2 hrs)

Program Total 32 hours

Note:
*These classes are recommended. Individual assessment of transcripts at time of admission determines the exact classes needed by an individual for an endorsement. Classes that are specific to a disability area are listed below.

## Courses Required for Initial Endorsement

## Teachers of Students with Hearing Impairment (HEAR)

Prospective students should be aware that the basic philosophy of the program is oral communication; students are exposed to manual communication during their course of study, however.

All students are considered provisional majors until such time as they successfully complete SPHI391 Language for Students with Hearing Impairment and pass a language proficiency examination. SPLI673 listed above is not required in this program.

SPHI228 Education of Students with Hearing Impairment (3 hrs)
SPSI332 Acoustic Phonetics: Speech Science (2 hrs)
SPSI336 Physiologic Phonetics: Anatomy and Physiology (3 hrs)
SPSI337 Language Acquisition (3 hrs)
SPHI375 Fundamentals of Sign Communication (2 hrs)
*SPHI387 Introductory Practicum - Students with Hearing Impairment ( 1 hr )
*SPHI391 Language for Students with Hearing Impairment (4 hrs)
*SPHI392 Introduction to Audiology (2 hrs)
*SPHI394 Aural Habilitation/Rehabilitation (3 hrs)
SPHI435 Phonetics and Hearing Impairment (2 hrs)
*SPHI436 Speech Methods for Students with Hearing Impairment (2 hrs)
*SPHI437 Adaptive Curriculum for Students with Hearing Impairment (3 hrs)
*SPHI487 Speech Practicum - Students with Hearing Impairment ( 1 hr )
*SPGN485 Curriculum, Programs and Services for Adolescents and Young Adults with Disabilities (2 hrs)
*SPGN486 Transition and Related Field Experiences: Adolescents and Young Adults with Disabilities (2 hrs)
SPGN694 Seminar: Interdisciplinary Special Education (2 hrs)
*SPGN689 Supervised Internship in Special Education (6 hrs)
Initial Endorsement Total.

## Teachers of Students with Cognitive Impairment (COGN)

SPCI240 Pre-clinical Experiences - Cognitive Impairment (3 hrs)
*SPCI557 Mental Retardation: Nature, Needs, and Issues (3 hrs)
*SPCI429 Curriculum Design and Education Programs for Students with Mild Retardation (3 hrs)
*SPLI468 Education of Children with Learning Disabilities (2 hrs)
*SPCI483 Education of Students with Moderate or Severe Retardation (4 hrs)
*SPCI694/SPGN694 Seminar: Interdisciplinary Special Education (2 hrs)
*SPCI427 Education of the Elementary Student with Cognitive Impairment ( 2 hrs )
*SPGN485 Curriculum, Programs and Services for Adolescents and Young Adults with Disabilities (2 hrs)
*SPGN486 Transition and Related Field Experiences: Adolescents and Young Adults with Disabilities (2 hrs)
*SPGN689 Supervised Internship in Special Education (6 hrs)
Initial Endorsement Total. 29 hours

## Teachers of Students with Physical Impairment or other Health Impairment (POHI)

SPPI240 Preclinical Experiences - POHI (3 hrs)
SPPI310 Developmental Sciences for Teachers of the Physically and Health Impaired (4 hrs)

SPCI557 Mental Retardation: Nature, Needs and Issues (3 hrs) SPPI360 Pathology of Physical and Health Impairments (3 hrs)
*SPPI412 Ancillary Services and Health Procedures for Teachers of Physically Impaired (2 hrs)
*SPLI468 Education of Children with Learning Disabilities (2 hrs)
*SPLI481 Adaptive Technology in Special Education (2 hrs)
*SPGN694 Seminar: Interdisciplinary Special Education (2 hrs)
*SPPI414 Educational Strategies for Teachers of the Physically Impaired (4 hrs)
*SPGN485 Curriculum, Programs and Services for Adolescents and Young Adults with Disabilities (2 hrs)
*SPGN486 Transition and Related Field Experiences: Adolescents and Young Adults with Disabilities (2 hrs)
*SPGN689 Supervised Internship in Special Education (6 hrs)
Initial Endorsement Total........................................................ 35 hours

## Teachers of Students with Visual Impairment (VISU)

Courses Required for Initial Endorsement
SPVI365 Braille (3 hrs)
SPVI366 The Eye and Vision - Anatomy and Physiology (2 hrs)
SPVI368 Mobility Training for the Visually Impaired (2 hrs)
SPVI369 Community Considerations for the Visually Impaired (3 hrs)
*SPVI464 Methods of Teaching the Blind (3 hrs)
*SPVI465 Braille II: Nemeth Code (3 hrs)
*SPVI467 Education of Children with Impaired Vision (2 hrs)
*SPVI469 Electronic Communication for the Visually Impaired (3 hrs)
*SPGN485 Curriculum, Programs and Services for Adolescents and Young Adults with Disabilities (2 hrs)
*SPGN486 Transition and Related Field Experiences: Adolescents and Young Adults with Disabilities (2 hrs)
*SPGN694 Seminar: Interdisciplinary Special Education (2 hrs)
*SPGN689 Supervised Internship in Special Education (6 hrs)
Initial Endorsement Total.
.33 hours

## Teachers of Students with Emotional Impairment (EMOT)

```
Courses Required for Initial Endorsement
    SPEI240 Pre-clinical Experiences - Emotional Impairment (3 hrs)
    One course from the following:
            SPEI301 Children and Adolescents with Emotional
                    Impairment (4 hrs)
            SPEI510 Advanced Theory of Emotional Impairment (3 hrs)
            *PSY543 Abnormal Psychology (3 hrs)
            *SPEI694 Seminar: The Emotionally Impaired Child (2 hrs)
    One course from the following:
            SOCL202 Social Problems (3 hrs)
            SOCL402 Group Dynamics (3 hrs)
            *SPEI401 Curriculum, Methods and Programming for Elemen-
            tary Students with Emotional Impairment (4 hrs)
            *SPEI488 Curriculum, Methods and Programming for Secondary
            Students with Emotional Impairment (4 hrs)
    Elementary Certification
            PHED578 Motor Development and Learning (2 hrs)
            *SPLI468 Education of Children with Learning Disabilities (2 hrs)
    Secondary Certification
            PSY322 Psychology of Adolescence (3 hrs)
            CRM354 Juvenile Delinquency (3 hrs)
```

Elementary Initial Endorsement Total ...................................... 27 hours
Secondary Initial Endorsement Total ....................................... 29 hours

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400-level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities ( 3 hrs )
SPGN481 Assistive Technology in Special Education (2 hrs)
SPGN485 Curriculum, Programs and Services for Adolescents and Young Adults with Disabilities (2 hrs)
SPGN486 Transition and Related Field Experiences: Adolescents and Young Adults with Disabilities (2 hrs)
SPGN491 Student Teaching Seminar - Special Education (2 hrs)
SPEI401 Curriculum, Methods and Programming for Elementary Students with Emotional Impairment ( 4 hrs )
SPEI488 Curriculum, Methods and Programming for Secondary Students with Emotional Impairment ( 4 hrs )
SPHI436 Speech Methods for Students with Hearing Impairment (2 hrs)
SPHI437 Adaptive Curriculum for Students with Hearing Impairment (3 hrs)
SPLI468 Education of Children with Learning Disabilities (2 hrs)
SPCI427 Education of the Elementary Student with Cognitive Impairment (2 hrs)
SPCI483 Education of Students with Moderate or Severe Retardation (4 hrs)
SPPI412 Ancillary Services and Health Procedures for Teachers of Physically Impaired ( 2 hrs )
SPPI414 Educational Strategies for Teachers of the Physically Impaired (4 hrs)
SPSI452 Voice (3 hrs)
SPSI454 Stuttering (3 hrs)
SPVI464 Methods of Teaching the Blind (3 hrs)
SPVI465 Braille II: Nemeth Code (3 hrs)
SPVI467 Education of Children with Impaired Vision (3 hrs)
SPVI469 Electronic Communication for the Visually Impaired (3 hrs)

# Department of Teacher Education 

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See pages 189, 192, 197, 198, 237, and 240 for course descriptions.

## Programs Offered

The department offers master of arts degrees in social foundations of education; educational psychology with degrees in development and personality and research and evaluation; educational media and technology; reading; early childhood education; elementary education; middle level education; secondary education; and common learnings in curriculum.

## General Admission Requirements for Master's Programs

The requirements listed below are common to all master's programs in the department. Applicants must;

1. Comply with the Graduate School's admission requirements;
2. Hold a 2.75 undergraduate GPA or 3.0 in the last half of the undergraduate work or 3.3 GPA in 12 hours or more of work at the graduate level or a minimum 50th percentile on the Graduate Record Examination writing. International students must have a minimum score of 550 on the TOEFL;
3. For early childhood education, elementary education, middle level education, secondary education, common learnings in curriculum and reading - hold a valid teaching credential. For international students who do not intend to teach in the United States, this requirement can be waived;
4. Furnish an analysis of professional goals written by the candidate. This analysis should include a description of how the chosen degree program will help meeting the selected goals and how the candidate's life experiences, accomplishments and interests will contribute to his or her success in the program; and
5. Request and have submitted two letters of recommendation that address the candidate's professional commitment, experience and potential.

The transcripts, analysis of goals and letters of recommendation should give evidence of potential for graduate-level scholarship.

## Student Responsibilities

Upon admission to the program, the student is expected to assume the following responsibilities:

1. Follow all the policies of the Graduate School, department and program area as specified in the Graduate Catalog;
2. Consult with an assigned adviser before registering for courses in the degree program;
3. Prepare a program of study approved by an adviser; and
4. Obtain permission from the adviser before making substitutions or altering the program of study.

## Department Appeals Procedure

Graduate students may formally appeal an admission, retention or exit decision by contacting the department head and graduate coordinator. Each appeal must be an individual action by an individual student. Class action appeals are not permitted.

## Step I

The appellant must notify the department head and graduate coordinator in writing within five (5) working days after written notice of the admission, retention or exit appeals action. The written request should summarize the facts of the case and reasons for the appeal. The department head will assist the student in scheduling an appointment with the graduate coordinator and department head to discuss privately the disputed decision.

## Step II

If the dispute is not resolved in step I, the student has the right to file a formal written appeal with the department head who will forward it immediately to the Department Grade Grievance and Appeals Committee. Guidelines are as follows:

1. An appeal must be based on evidence that the program area in question has been capricious and/or unfair in making its decision. The written appeal must describe specifically the perceived capricious or unfair action of the program area. The student also should present all other evidence or documentation in support of the appeal.
2. An appeal must be filed within 15 working days after the meeting described in Step I.

Within 10 working days after receiving the written appeal, the department head must schedule a hearing before the Department Grade Grievance and Appeals Committee, composed of three faculty members and two graduate students. The student appellant may request in advance in writing that the appeal be heard only by the three faculty members. The committee shall conduct a hearing according to the following guidelines:

1. Any written information in support of either the student or the program should be distributed to committee members before the hearing.
2. A detailed record shall be kept of the hearing. If a written record is kept, it should be signed by the Grievance and Appeals Committee, asserting its accuracy. If a tape sound recording is made, the committee shall sign a statement attesting its accuracy. All step II appeal records shall be filed in the college dean's office; copies shall be provided, upon request, to the student appellant or the concerned program. Duplicating costs shall be borne by the individual or the program.
3. The hearing shall be open unless the student or the program area asks the department head in writing for a closed hearing.
4. Both the student and program representatives shall be permitted advisers, who must be members of the University community.
5. The Department Grade Grievance and Appeals Committee chair shall begin the hearing by starting the tape recorder (or announcing the name of the person taking minutes), reviewing the hearing guidelines and procedures, and saying "this Step Level II Appeals Hearing is being held on (date). (Name of student) is appealing the (program area) decision on (admissions, retention or exit) requirements. The following committee members are in attendance today: (members give their names)."
6. In order, the student and the program area representative(s) will present their cases, calling witnesses if they choose. The student, program area representatives, adviser(s) and committee members may question any such witness. The student and program area representative(s) should be asked for brief closing statements.
7. The chair will close the hearing by saying, "this Step Level II Appeals Hearing is now concluded." The committee will meet and present its decision, in writing, to the department head within five working days. This document will contain a numerical report of the vote and be signed by the committee members. The department head will notify the student and the program area representative(s) of the committee's decision.

## MASTER OF ARTS in Early Childhood Education (ECE)

## Program Overview

The program in early childhood education is designed for those who hold teacher certification and have or are seeking careers as classroom teachers (preschool through third grade), child care program directors or other positions related to the care and education of children ages birth through eight years. Each student's program is worked out in consultation with an adviser according to the background and needs of the individual student. The program requires a minimum of 30 hours of graduate credit. The actual credits required for the degree may be more than 30 , depending on the amount of previous teaching experience and course work the student has successfully completed. Students can plan programs with their advisers that will enable them to meet the state of Michigan's requirements for the early childhood endorsement for the elementary teaching certificate. This program is in compliance with the standards set forth by the National Association for the Education of Young Children.

## Model

Eastern Michigan University's advanced professional education programs promote inquiry, advocacy and leadership in education for a diverse and democratic society. The early childhood education program addresses extended knowledge of developing and implementing age-appropriate and individually appropriate curriculum and teaching practices from birth through age eight.

## Admission Requirements

See general admission requirements on page 127.

## Retention Requirements

Retention requirements can be considered a "mid-point check" in the master's degree programs. It is necessary to successfully complete all retention requirements before proceeding with the remainder of the program.

## To proceed with exit requirements, students must:

1. Complete ECE600 and ECE602 with a grade of B or better in both courses. ECE600 should be taken in the first eight hours on the program, as the course content will include a discussion of the master's portfolio requirements and format;
2. Complete EDPS677 or EDPS687 and additional courses, including the above, to total 15 hours of graduate credit with an overall GPA of 3.0 or better;
3. Schedule and satisfactorily complete a faculty interview and professional portfolio mid-point review. The interview will include discussion of the student's program to date and a review of the portfolio contents (see ECE's Master's Degree Portfolio Guidelines for portfolio requirements.); and
4. If a student's progress is judged unsatisfactory at the time of the midpoint review, the decision will be reviewed by all early childhood education graduate faculty, with the decision based on a majority vote. Students who do not meet the criteria, but maintain graduate student status may continue to take graduate credit for professional development.

## Exit Requirements

In order to graduate, each student is expected to:

1. Complete all Graduate School and department requirements for a master's degree, following an approved program of study for the master's degree in early childhood education;
2. Complete a culminating seminar in early childhood education, including submission of all required components for the professional portfolio or thesis proposal;
3. Fill out an application for graduation and obtain the adviser's recommendation; and
4. Satisfactorily complete an exit review of the portfolio by two or more graduate faculty members in early childhood education, or satisfactorily complete a master's thesis. The exit review will be conducted as part of the culminating seminar.

## Curriculum Requirements

All of the courses in the program and restricted elective areas count towards the Early Childhood Endorsement. The ECE requires a total of 20 hours of credit listed in the program and restricted elective areas.

The curricular requirements include a minimum of 31 graduate-level hours, to be distributed as follows:
Foundation ................................................................................ 27 hours
Early Childhood Education Requirements
One course in Human Growth and Development:
EDPS600 Human Development (recommended) $(2 \mathrm{hrs})$
One course in Research (choose one of the following):
EDPS677 Methods in Quantitative Research ( 3 hrs )
EDPS687 Qualitative/Interpretive Research ( 3 hrs )
One course in Social Foundations (choose one of the following):
SOFD550 Philosophy, Ethics and Teaching (2 hrs)
SOFD580 Sociology of Education (2 hrs)
ECE Concentration
ECE600 Trends and Issues in Early Childhood Education (2 hrs)
ECE602 Implementing Appropriate Early Childhood
Programs (2 hrs)
ECE610 Family, School and Community Partnerships in
ECE (2 hrs
ECE613 Curriculum Frameworks in Early Childhood (2 hrs)
ECE641 Developmental Assessment of the Young Child:
Theory and Practice (2 hrs)

One course from the following:<br>ECE601 Helping Young Children in Crisis Through Curricular Activities (2 hrs)<br>EDPS617 Children in Poverty: Educational Implications (2 hrs)<br>ECE693 Seminar: Early Childhood Education (2 hrs) Restricted Electives 6 hours<br>At least three from the following:<br>ECE601 Helping Young Children in Crisis Through Curricular Activities (2 hrs)<br>ECE603 Professional Development in Early Childhood Education Settings (2 hrs)<br>ECE604 Directing a Child Care Program (2 hrs)<br>ECE615 Social Relationships and Competence in Early Childhood Settings (2 hrs)<br>ECE618 Play and Human Development (2 hrs)<br>ECE590/591 Special Topics Courses (2 hrs)<br>EDPS611 Piaget for Educators (2 hrs)<br>EDPS617 Children in Poverty: Educational Implications (2 hrs)<br>PHED578 Motor Learning and Development (2 hrs)<br>RDGN656 Language Development, Literacy and the Young Child (3 hrs)<br>SPGN510 Exceptional Child in the Regular Classroom (3 hrs)

## Electives

 4 hoursTake at least two courses after consultation with your facul................................................... Some suggested electives include a course in: technology, elementary curriculum, math or science for educators, social foundations, educational psychology, reading, among others.

Program Total 31 hours

## MASTER OF ARTS in Educational Psychology

## Program Overview

The master of arts degree program offers programs in development and personality, research and evaluation, and educational media and technology. The mission of the educational psychology program is to prepare the educator as a practitioner and researcher. The focus is on the application of psychological theories, principles and concepts to school and non-school settings. Specifically, the goals include enhancing the students' abilities to:

1. Understand educational psychology concepts related to the cognitive, affective, physical and social development of children and adolescents;
2. Apply educational psychology and principles of learning in school and non-school settings;
3. Utilize the findings gained from research studies to create programs and environments that foster positive learning;
4. Design research studies and assessments of student outcomes; and
5. Understand the multiple dimensions of diversity and their potential impact on development and learning.

This program is under revision. Please contact the department for changes to the program.

## Model

Eastern Michigan University's advanced professional education program promotes inquiry, advocacy and leadership in education for a diverse and democratic society.

## Admission Requirements

See general admission requirements on page 127.

## Retention Requirements

Retention requirements can be considered a mid-point check in the master's degree programs. It is necessary to successfully complete all retention requirements before proceeding with the remainder of the program.

To gain approval to proceed with exit requirements, each student must:

1. Complete a total of 12 but no more than 18 hours of graduate credit with an overall GPA of 3.0 or better;
2. Write a three-page interim prospectus that includes: (a) a statement of professional goals; (b) a self-assessment of professional development since entering the program; (c) an identification of key issues to be pursued for the remainder of the program; and (d) a plan of action for the culminating experience. A copy of this statement will be placed in the student's file; and
3. Set up an appointment with the faculty adviser to discuss the prospectus. In the event that the student's GPA has dropped below 3.0, or if any other deficiencies are noted, the adviser will develop a plan of remediation in consultation with the student.

## Exit Requirements

In order to graduate, each student is expected to:

1. Complete a minimum of 30 hours of graduate credit applicable to the program;
2. Maintain a minimum GPA of 3.0;
3. Complete the program-culminating seminar, including a successful thesis proposal, comprehensive exam or project;
4. Successfully complete a thesis, if the thesis proposal is chosen in No. 4;
5. Fill out an application for graduation and obtain the adviser's recommendation; and
6. Meet all other requirements for a master's degree adopted by the Graduate School.

## MASTER OF ARTS in Educational Psychology - Development and Personality (EPDP)

## Program Theme

This program provides knowledge about human development, personality and learning, and helps students to apply these concepts to a variety of environments. Students analyze issues regarding individual differences including children at risk, the impact of poverty, giftedness, multicultural factors, social class and gender influences on learning and development. Students learn to analyze critically and synthesize information to respond to individual differences within the classroom and other educational settings, thereby creating situations that enhance the motivation and capacity for learning.

This program is under revision. Please contact the department for changes to the program.

## Curriculum

The curricular requirements include a minimum of 31 graduate-level hours, to be distributed as follows:

```
Required Courses..
15 hours
CURR655 Curriculum Foundations (2 hrs)
EDPS677 Methods in Quantitative Research (3 hrs)
EDPS600 Human Development (2 hrs)
EDPS621 Statistical Applications in Educational Research (2 hrs)
EDPS631 Measurement and Evaluation (2 hrs)
EDPS694 Seminar in Educational Psychology (2 hrs)
One course from the following:
SOFD530 Social Foundations of Education: An Introduction (2 hrs)
SOFD550 Philosophy, Ethics and Teaching (2 hrs)
SOFD572 The History of American Schooling and Literacy (3 hrs)
SOFD580 Sociology of Education (2 hrs)
```

EDPS Elective Courses ............................................................. 10 hours
Ten hours selected in consultation with the graduate adviser.
Outside Elective Courses ............................................................ 6 hours
Six hours selected in consultation with the graduate adviser.
Program Total ........................................................................ 31 hours

# MASTER OF ARTS in Educational Psychology - Research and Evaluation (EPRE) 

## Program Theme

The master's degree in educational psychology with a research and evaluation concentration emphasizes educational assessments and evaluations, research methodology and a variety of data analysis procedures. Students design and implement studies in educational settings, including assessments of student outcomes in instruction. In addition, students develop skills in the use of computer application software. Also, this program provides a foundation for the pursuit of advanced degrees in educational psychology and allied fields.

This program is under revision. Please contact the department for changes to the program.

## Curriculum

The curricular requirements include a minimum of 32 graduate-level hours, to be distributed as follows:

Foundation Courses................................................................... 9 hours
EDPS600 Human Development (2 hrs)
EDPS677 Methods in Quantitative Research (3 hrs)
CURR655 Curriculum Foundations (2 hrs)
One course from the following:
SOFD530 Social Foundations of Education: An Introduction ( 2 hrs )
SOFD550 Philosophy, Ethics and Teaching (2 hrs)
SOFD572 The History of American Schooling and Literacy (3 hrs) SOFD580 Sociology of Education (2 hrs)

Required Courses.
11 hours
EDPS502 Basic Concepts in Educational Psychology (2 hrs)
EDPS687 Qualitative/Interpretive Research (3 hrs)
One course from the following:
EDPS694 Seminar (2 hrs)
EDPS691 Thesis (2 hrs)
One course from the following:
EDPS501 Psychology of Adolescence (2 hrs)
EDPS509 Problems in Child Psychology (2 hrs)
EDPS602 Psychology of the Adult Learner (2 hrs)
EDPS603 Principles of Classroom Learning (2 hrs)
One course from the following:
EDPS535 Measurement and Evaluation of Adult Learners (2 hrs) EDPS621 Statistical Applications in Educational Research (2 hrs) EDPS631 Measurement and Evaluation (2 hrs)

Concentration Area $\qquad$ .6 hours Six hours from the following

EDPS535 Measurement and Evaluation of Adult Learners (2 hrs) EDPS621 Statistical Applications in Educational Research (2 hrs) EDPS631 Measurement and Evaluation (2 hrs)
EDPS651 Inferential Statistics (2 hrs)
EDPS652 Multivariate Statistics (2 hrs)
COUN520 Assessment in Counseling (3 hrs)
Elective Courses
6 hours
Program Total .32 hours

# MASTER OF ARTS in Educational Media and Technology (EDMT) 

## Program Theme

The mission of this program is to prepare professionals who are capable of facilitating student learning in a variety of settings. The program is designed to provide students with both the knowledge base and the application skills
that are required to use technology effectively in education. Focusing on the design, development, utilization, management and evaluation of instructional systems moves us toward achieving this mission.

Students who complete the educational technology program will be able to:

1. Provide a rationale for using technology in the educational process;
2. Identify contributions of major leaders in the field of educational media technology and instructional theory, and the affect that each leader has had on the field;
3. Assess current trends in the area of educational media technology and relate the trends to past events and future implications;
4. Integrate technology into instructional programs;
5. Teach the operation and various uses of educational technology in instruction;
6. Act as consultants/facilitators in educational media technology;
7. Design and develop instructional products to meet specified needs; and
8. Evaluate the effectiveness of instructional materials and systems.

## Admission Requirements

See admissions requirements on page 127.

## Retention Requirements

Retention requirements can be considered a mid-point check in the master's degree programs. It is necessary to successfully complete all retention requirements before proceeding with the remainder of the program.

To gain approval to proceed with exit requirements, each student must:

1. Complete a total of 12 but no more than 18 hours of graduate credit with an overall GPA of 3.0 or better;
2. Write a one-page mid-program statement concerning the student's interests and goals for the remainder of the program, and set an appointment with the faculty adviser to discuss; and
3. In addition, each faculty adviser and student will discuss the student's plans and make revisions in the program (including the choice of statistics or qualitative research). They will also discuss remediation if warranted. A copy of the mid-program statement will be placed in the student's file. In the event that the student's GPA has dropped below 3.0 or any other deficiencies are noted, the adviser will develop a plan of remediation in consultation with the student.

## Exit Requirements

In order to graduate, each student is expected to:

1. Complete all work on an approved program of study;
2. Maintain a 3.0 GPA (B) average or better on course work taken within the program;
3. Fill out an application for graduation and obtain the adviser's recommendation;
4. Meet all other requirements for a master's degree adopted by the Graduate School;
5. Complete a culminating experience as determined by the student and faculty adviser.

## Curriculum

The curricular requirements include a minimum of 31 graduate-level hours, to be distributed among the following:

[^19]```
Required EDMT Courses.
                . }21\mathrm{ hours
    EDMT602 Technology and Student-Centered Learning (3 hrs)
    EDMT603 Technology Enhanced Learning Environments (3 hrs)
    EDMT623 Instructional Design and Development of Multimedia
        Instructional Materials (3 hrs)
    EDMT627 Advanced Technical Issues in Educational
        Technology (3 hrs)
    EDMT628 Use and Design of Online Resources for Education (3 hrs)
    EDMT653 Issues and Emerging Technologies (3 hrs)
    EDMT695 Seminar in Educational Technology (3 hrs)
```

Restricted Technology Elective Courses ..................................... 3 hours
EDMT592 Special Topics (3 hrs)
EDMT681 Special Topics (3 hrs)
Other University courses in Educational Technology
Program Total ......................................................................... 31 hours

## MASTER OF ARTS Programs in Curriculum and Instruction

The curriculum and instruction area includes programs in elementary education, middle level education, secondary education and common learnings in curriculum.

## Model

Eastern Michigan University's advanced professional education program promotes inquiry, advocacy and leadership in education for a diverse and democratic society.

## Admission Requirements

See general admission requirements on page 127.

## Retention Requirements

Students must successfully complete all retention requirements before proceeding with the remainder of the program.

1. Attendance at a program orientation.
2. From 15 to 18 hours of graduate credit, including CURR654 or CURR655 and required EDPS and SOFD courses, with an overall GPA of 3.0 or better.
3. A satisfactory assessment of written communication.

Students lacking the requirements must meet with the adviser to determine whether to withdraw from the program or apply for continuing eligibility by completing a plan of remediation.

## Exit Requirements

## To graduate, students must:

1. Complete an approved program of study with a GPA of 3.0 or better;
2. Successfully complete a culminating experience;
3. Apply for graduation and obtain the adviser's recommendation; and
4. Meet all other Graduate School requirements for the degree.

## Description of Programs

All programs in the area of curriculum and instruction require foundations courses, courses particular to the degree program and a culminating experience. Programs in elementary education, middle level education and secondary education require a culminating thesis or project. The program in common learnings culminates in a comprehensive exam.

## MASTER OF ARTS in Elementary Education (ELED)

## Description of Program

The elementary education program is designed to encourage each student to investigate a subject in depth and create a culminating product that is derived from that investigation. The program includes foundation courses, a specialized course in related educational issues, a specialization consisting of a minimum of four classes that reflect a thematic or other unified pattern, elective courses, a seminar course designed to assist the student to develop a thesis/project topic and proposal and thesis/project credits needed to complete the product. When the student has completed 33 hours and has received approval signifying acceptance of the completed thesis/project, the adviser will recommend graduation.

## Program Requirements

*Foundations Courses............................................................... 9 hours
EDPS600 Human Development (2 hrs)
CURR655 Curriculum Foundations (2 hrs)
One course from the following:
EDPS677 Methods in Quantitative Research (3 hrs)
EDP687 Qualitative/Interpretive Research (3 hrs)
One course from the following:
SOFD530 Social Foundation of Education: An
Introduction (2 hrs)
SOFD550 Philosophy, Ethics and Teaching (2 hrs)
SOFD572 The History of American Schooling and
Literacy (3 hrs)
SOFD580 Sociology of Education (2 hrs)
Elementary Education Courses.........................................7-10 hours
CURR616 Issues in Elementary School Curriculum (2 hrs)
CURR694 Seminar: Elementary School Curiculum (2 hrs)
CURR690/691/692 Thesis/Curriculum Project (3-6 hrs) CURR690/691/692 Thesis/Curriculum Project (3-6 hrs)

Concentration Courses
..8-10 hours
Eight to 10 hours selected in consultation with the graduate adviser.
Electives Courses
5-10 hours
Five to 10 hours selected in consultationion wi.................................................
Program Total
33 hours
Note:
*Foundations courses are required for all master of arts in curriculum and instruction programs. These courses provide the basis on which all subsequent courses are built and must be taken within the first 18 hours of course work.

## Thesis/Project

The culminating experience for the elementary education program is a thesis or a project. This thesis/project is an opportunity for students to make the transition from consumers to producers of knowledge and innovation in the field of education. In a thesis, the writer investigates some area of educational theory or practice, gathers and analyzes information and draws conclusions to add to the body of knowledge in the field of curriculum. Curriculum projects entail working toward the solution of an educational problem using some aspect of curriculum.

Both the thesis and the curriculum project are intended to be new, original work, completed in consultation with a committee of faculty advisers. While a thesis or project often is the result of an interest that has developed across time, it is expected that the culminating experience itself will be developed during the time period that includes registration in seminar and completion of thesis credit. Previously completed projects are not acceptable for this purpose.

The thesis/project should reflect the grade-level program (elementary, middle level or secondary) and concentration area selected.

## Concentration Requirements

The elementary education program also requires each student to pursue a specialization. A specialization includes a minimum of four classes that reflect a thematic or other unified pattern. Specialization courses allow students to acquire in-depth knowledge in an area of interest and acquire important background for their thesis or project. Specialization available in the elementary education program are:
I. Subject Area Specialization
II. Education of the Gifted and Talented
III. Teacher as Inquirer
IV. Instructional Models and Processes
V. Language Arts
VI. Students with Special Needs

A student and an adviser are free to create a unique pattern, so long as that pattern meets the "unified pattern" criteria. Program requirements are described below. For additional information about the programs available, consult the coordinator of graduate programs in curriculum and instruction.
I. Subject Area Specialization Concentration. $\qquad$ 8-10 hours
Four graduate classes from your major/minor subject area selected in consultation with the graduate adviser.
II. Education of the Gifted and Talented Concentration.............. 8 hours
Required Courses
6 hours

CURR572 Education of the Gifted Child (2 hrs)
CURR673 Curriculum and Teaching Strategies for the Gifted and Talented ( 2 hrs )
One course from the following:
CURR510 Developing Creativity in the Classroom (2 hrs)
EDPS614 Psychology of Creativity for Educators (2 hrs)

## Restricted Elective Course

2 hours
One course from the following (others courses may be selected in consultation with the adviser):

CURR510 Developing Creativity in the Classroom (2 hrs) EDPS614 Psychology of Creativity for Educators (2 hrs) CURR676 Education of the Gifted and Talented: Underrepresented Populations (2 hrs)
EDPS504 Nature and Identification of the Gifted (2 hrs)
III. Teacher as Inquirer Concentration...................................... 11 hours
Required Courses
CURR667 Teacher as Intellectual Inquirer (2 hrs)
*One course from the following:
EDPS677 Methods in Quantitative Research ( 3 hrs )
EDPS687 Qualitative/Interpretive Research ( 3 hrs )
6 hours
Other Courses
Students must select a pattern of three courses with the approval of
adviser. Some suggested patterns include:

1. Quantitative analysis and measurement courses
2. Qualitative methods
3. Curriculum and instruction theory and practice
4. Educational context, e.g., appropriate courses in social
foundations

Note:
*Must take the course not taken in foundations area.
IV. Instructional Models and Practices Concentration ................. 8 hours
Required Courses
CURR656 Curriculum Design, Implementation and
Evaluation (2 hrs)
CURR650 Improving Instruction through Inquiry and
Assessment (2 hrs)
Restricted Elective Courses
Two courses from the following (others courses may be selected in consulta-
tion with the adviser):
CURR510 Developing Creativity in the Classroom (2 hrs)
CURR512 Enriching the Elementary Classroom Program (2 hrs)

CURR657 The Open Classroom (2 hrs)
CURR560 School and Classroom Discipline (2 hrs)
CURR572 Education of the Gifted Child (2 hrs)
CURR660 Assisting Student Teachers and New Teachers (2 hrs)
CURR667 Teacher as Intellectual Inquirer ( 2 hrs )
EDPS603 Principles of Classroom Learning (2 hrs)
Advanced subject matter courses
Appropriate course in education media/technology
V. Language Arts Concentration-Elementary ............................. 10 hours

Required Courses 6 hours
One course from the following:
RDNG656 Language Development, Literacy and the Young Child (3 hrs)
RDNG657 Comprehension in the Content Areas (3 hrs)
One course from the following:
RDNG655 Integrated Literacy Curriculum (3 hrs)
RDNG658 Reading, Writing and the Inquiry Process (3 hrs)
Restricted Elective Courses
4-6 hours
Two courses from the following:
CTAR501 Creative Drama and Role-Playing ( 2 hrs )
CTAR504 Oral Interpretation of Literature and Language with the Young ( 2 hrs )
RDNG506 Storytelling (2 hrs)
LITR516 Major Genres in Children's Literature (3 hrs)
LITR518 History of Children's Literature (3 hrs)
RDNG655 Integrated Literacy Curriculum (3 hrs)
RDNG656 Language Development, Literacy and the Young Child (3 hrs)
RDNG657 Comprehension in the Content Areas (3 hrs)
RDNG658 Reading, Writing and the Inquiry Process (3 hrs)

```
*VI. Students with Special Needs Concentration
``` \(\qquad\)
``` .8 hours
Required Courses
4 hours
SPGN510 The Exceptional Child in the Regular
Classroom (2 hrs)
CURR572 Education of the Gifted Child (2 hrs)
Restricted Elective Courses
4 hours
```

Two courses from the following (others courses may be selected in consultation with the adviser).

CURR673 Curriculum and Teaching Strategies for the Gifted and Talented (2 hrs)
CURR676 Education of the Gifted and Talented: Underrepresented Populations (2 hrs)
EDPS504 Nature and Identification of the Gifted (2 hrs)
SPLI468G Education of Children with Learning Disabilities (must be taken for graduate credit) ( 2 hrs )
ECE601 Helping Young Children in Crisis Through Curricular Activities (2 hrs)
EDPS617 Children in Poverty: Educational Implications (2 hrs)
RDNG554 Reading Problems of Learners with Special Needs (2 hrs)

Note:
*This concentration does not qualify a student to teach or receive an endorsement in special education.

## MASTER OF ARTS in Middle Level Education (MSED)

## Description of Program

The middle level education program is designed to encourage each student to investigate a subject in depth and create a culminating product that is derived from that investigation. The program includes foundation courses, courses in the philosophy and practice of middle level education, a specialized course in related educational issues, a concentration, elective courses, a seminar course designed to assist the student to develop a thesis/project topic and
proposal, and thesis/project credits needed to complete the product. When the student has completed 34 credit hours and has received approval signifying acceptance of the completed thesis/project, the adviser will recommend graduation.

```
*Foundations Courses.
.8 hours
EDPS501 Psychology of Adolesce.....................................
EDPS687 Qualitative/Interpretive Research (3 hrs)
CURR654 Curriculum Foundations (3 hrs)
```

Middle Level Cohort Courses................................................... 13 hours
CURR618 Middle Level Education: Theory and Practice (3 hrs)
CURR620 Issues in Middle Level Curriculum (3 hrs)
CURR622 Effective Teaching in Middle Level Education (3 hrs) CURR687 Internship (2 hrs)
CURR694 Seminar: Middle Level Curriculum (2 hrs)
Concentration Courses $\qquad$ .9 hours All students in the Middle Level Education program must select a broad subject area concentration. This concentration requires nine credits selected from the undergrad major/minor subject area. Fields such as social studies are acceptable (history is not), science is acceptable (biology is not). This reflects the broad field interdisciplinary teaming concept key to middle-level schools.

Culminating Experience ............................................................ 2 hours CURR691 Thesis/Curriculum Project (2 hrs)

Elective Courses................................................................................... 2 hours
Electives are selected in consultation with the adviser.
Program Total 34 hours

## Note:

*Foundations courses are required for all master of arts in curriculum and instruction programs. These courses provide the basis on which all subsequent courses are built and must be taken within the first 18 hours of course work.

## Thesis/Project

The culminating experience for a master of arts in middle-level education is a thesis or project centered in the middle grades school/classroom. This is an opportunity for the student to make the transition from a consumer to a producer of knowledge and innovation in the field of middle grades education. Curriculum projects entail working toward the solution of middle grades educational problem using some aspect of curriculum and/ or curriculum development. Thesis/projects are planned with the help of an adviser and a thesis/project committee and should reflect the selected concentration area within middle-level education.

## Concentration Area

All students in the Middle Level Education program must select a broad subject area concentration. This concentration requires nine credits selected from the undergrad major/minor subject area. Fields such as social studies are acceptable (history is not), science is acceptable (biology is not). This reflects the broad field interdisciplinary teaming concept key to middlelevel schools.

## MASTER OF ARTS in Secondary Education (SSED)

## Description of Program

The secondary education program is designed to encourage each student to investigate a subject in depth and create a culminating product that is derived from that investigation. The program includes foundation courses, a specialized course in related educational issues, a specialization consisting of a minimum of four classes that reflect a thematic or other unified pattern, elective courses, a seminar course designed to assist the student to develop a thesis/project topic and proposal, and thesis/project credits needed to
complete the product. When the student has completed 33 hours and has received approval signifying acceptance of the completed thesis/project, the adviser will recommend graduation.
*Foundations courses. ..... 9-10 hours
CURR655 Curriculum Foundations (2 hrs)
One course from the following:
EDPS501 Psychology of Adolescence (2 hrs)
EDPS600 Human Development (2 hrs)
One course from the following:
EDPS677 Methods in Quantitative Research (3 hrs)One course from the following:
SOFD530 Social Foundation of Education: AnIntroduction (2 hrs)
SOFD550 Philosophy, Ethics and Teaching (2 hrs)
SOFD572 The History of American Schooling and Literacy (3 hrs)
SOFD580 Sociology of Education (2 hrs)
Secondary Education Courses. ..... 7-10 hours
CURR630 Issues in Secondary School Curriculum (2 hrs)
CURR694 Seminar: Secondary Curriculum (2 hrs)
CURR690/691/692 Thesis/Curriculum Project (3-6 hrs)
Concentration Courses ..... 8-10 hours
Elective Courses .....  5 -10 hours
Program Total .....  33 hours
Note:*Foundations courses are required for all master of arts in curriculum andinstruction programs. These courses provide the basis on which all subsequentcourses are built and must be taken within the first 18 hours of course work.

## Thesis/Project

The culminating experience for the secondary education program is a thesis or a project. This thesis/project is an opportunity for students to make the transition from consumers to producers of knowledge and innovation in the field of education. In a thesis, the writer investigates some area of educational theory or practice, gathers and analyzes information and draws conclusions to add to the body of knowledge in the field of curriculum. Curriculum projects entail working toward the solution of an educational problem, using some aspect of curriculum.

Both the thesis and the curriculum project are intended to be new, original work, completed in consultation with a committee of faculty advisers. While a thesis or project often is the result of an interest that has developed across time, it is expected that the culminating experience itself will be developed during the time period that includes registration in seminar and completion of thesis credit. Previously completed projects are not acceptable for this purpose.

The thesis/project should reflect the grade-level program (elementary, middle-level, or secondary) and concentration area selected.

## Concentration Requirements

The secondary education program also requires each student to pursue a concentration. A concentration includes a minimum of four classes that reflect a thematic or other unified pattern. Concentration courses allow students to acquire in-depth knowledge in an area of interest and acquire important background for their thesis or project. Specializations available in the secondary education program are:

Subject Area Specialization
Education of the Gifted and Talented
Teacher as Inquirer
Instructional Models and Processes
Language Arts
Students with Special Needs

A student and an adviser are free to create a unique pattern, as long as that pattern meets the "unified pattern" criteria. Concentration requirements are described below. For additional information about the programs available, consult the coordinator of graduate programs in curriculum and instruction.

## I. Subject Area Specialization Concentration. <br> $\qquad$ .8-10 hours <br> Select four graduate classes from your major/minor subject area in consultation with the adviser. <br> II. Education of the Gifted and Talented Concentration.............. 8 hours <br> Required courses <br> 6 hours <br> CURR572 Education of the Gifted Child (2 hrs) <br> CURR673 Curriculum and Teaching Strategies for the Gifted and Talented ( 2 hrs ) <br> One course from the following: <br> CURR510 Developing Creativity in the Classroom (2 hrs) <br> EDPS614 Psychology of Creativity for Educators (2 hrs) <br> Restricted Elective Courses <br> 2 hours <br> One course from the following, other courses may be selected in consultation with the adviser: CURR510 Developing Creativity in the Classroom (2 hrs) EDPS614 Psychology of Creativity for Educators (2 hrs) <br> CURR676 Education of the Gifted and Talented: <br> Underrepresented Populations (2 hrs) <br> EDPS504 Nature and Identification of the Gifted (2 hrs)

III. Teacher as Inquirer Concentration...................................... 11 hours

Required Courses
5 hours
CURR667 Teacher as Intellectual Inquirer (2 hrs)
*One course from the following:
EDPS677 Methods in Quantitative Research (3 hrs)
EDPS687 Qualitative/Interpretive Research (3 hrs)
Restricted Elective Courses 6 hours
Students must select a pattern of three courses with the approval of adviser. Some suggested patterns include:

1. Quantitative analysis and measurement courses
2. Qualitative methods
3. Curriculum and instruction theory and practice
4. Educational context, e.g., appropriate courses in social foundations

Note:
*Must take the one not taken in foundations area.
IV. Instructional Models and Practices Concentration ................. 8 hours
Required Courses Required Courses 4 hours

CURR656 Curriculum Design, Implementation and Evaluation (2 hrs)
CURR650 Improving Instruction through Inquiry and Assessment (2 hrs)
Restricted Elective Courses 4 hours
Two courses from the following, other courses may be selected in consultation with the adviser:

CURR510 Developing Creativity in the Classroom (2 hrs)
CURR512 Enriching the Elementary Classroom
Program (2 hrs)
CURR657 The Open Classroom (2 hrs)
CURR560 School and Classroom Discipline (2 hrs) CURR572 Education of the Gifted Child (2 hrs) CURR660 Assisting Student Teachers and New Teachers (2 hrs) CURR667 Teacher as Intellectual Inquirer (2 hrs) EDPS603 Principles of Classroom Learning (2 hrs) Advanced subject matter courses
Appropriate course in education media/technology
*V. Students with Special Needs Concentration: ......................... 8 hours
Required Courses
SPGN510 The Exceptional Child in the Regular Classroom (2 hrs)
CURR572 Education of the Gifted Child (2 hrs)
Restricted Elective Courses
Two courses from the following, other courses may be selected in
consultation with the adviser:
CURR673 Curriculum and Teaching Strategies for the
Gifted and Talented (2 hrs)
CURR676 Education of the Gifted and Talented:
Underrepresented Populations (2 hrs)
EDPS504 Nature and Identification of the Gifted (2 hrs)
SPLI468G Education of Children with Learning
Disabilities (must be taken for graduate credit) (2 hrs)
ECE601 Helping Young Children in Crisis Through
Curricular Activities (2 hrs)
EDPS617 Children in Poverty: Educational
Implications (2 hrs)
RDNG554 Reading Problems of Learners with Special
Needs (2 hrs)

Note:
*This concentration does not qualify a student to teach or receive an endorsement in special education.
VI. Language Arts Concentration-Secondary ...................... 10-12 hours

Required Courses 6 hours
RDNG657 Comprehension in the Content Areas (3 hrs)
RDNG658 Reading, Writing and the Inquiry Process (3 hrs)
Restricted Elective Courses
4-6 hours
Two courses from the following:
CTAR501 Creative Drama and Role-Playing (2 hrs)
CTAR504 Oral Interpretation of Literature and Language with the Young (2 hrs)
RDNG506 Storytelling (2 hrs)
LITR516 Major Genres in Children's Literature (3 hrs)
LITR518 History of Children's Literature ( 3 hrs )
RDNG514 Literature for Young Adults (2 hrs)
RDNG655 Integrated Literacy Curriculum (3 hrs)
RDNG656 Language Development, Literacy and the Young Child (3 hrs)
RDNG657 Comprehension in the Content Areas (3 hrs)
RDNG658 Reading, Writing and the Inquiry Process (3 hrs)

## MASTER OF ARTS in Common Learnings in Curriculum (Kiz)

## Description of Program

The program in common learnings and curriculum has a different purpose and rationale than the other three programs in the area of curriculum and instruction. Common learnings in curriculum has replaced the pre-existing $\mathrm{K}-12$ curriculum program. Rather than focusing on the needs and instructional practices important for a particular age or grade level, the common learnings program examines theory, practice and issues in curriculum K-12. It is particularly appropriate for curriculum supervisors and for other individuals interested in curriculum issues that are important across grade levels or subject areas. Unlike other programs in curriculum and instruction, the common learnings program does not require a thesis or curriculum project. Instead, it may culminate in a comprehensive examination that requires a student to reflect upon and synthesize knowledge across a number of designated courses.

The program requires a prescribed concentration containing the core curriculum for common learnings, elective courses and a seminar course designed to assist the student to prepare for the required culminating experience, in this case, a comprehensive examination. The comprehensive examination for the common learnings program requires students to apply information from their courses to specific educational settings. Courses in the common learnings core are designed to explore curriculum issues, trends and practices across grade levels. They provide the opportunity to interact with professionals in a variety of roles and settings. Electives are to be selected with the adviser to meet students' professional needs and provide an appropriate variety of experiences. When the student has completed 34 hours and has received a passing grade on the comprehensive examination, the adviser will recommend the student for graduation.

```
*Foundations Courses
.9-10 hours
    EDPS600 Human Development (2 hrs)
    One course from the following:
        EDPS677 Methods in Quantitative Research (3 hrs)
        EDPS687 Qualitative/Interpretive Research (3 hrs)
    CURR655 Curriculum Foundations (2 hrs)
    One course from the following:
        SOFD530 Social Foundation of Education: An
                Introduction (2 hrs)
        SOFD550 Philosophy, Ethics and Teaching (2 hrs)
        SOFD572 The History of American Schooling and
                Literacy (3 hrs)
        SOFD580 Sociology of Education (2 hrs)
Common Learnings Courses.
        12 hours
    One course from the following:
        CURR616 Issues in Elementary Level Curriculum (2 hrs)
        CURR620 Issues in Middle Level Curriculum (2 hrs)
        CURR630 Issues in Secondary Level Curriculum (2 hrs)
    CURR656 Curriculum Design, Implementation and Evaluation (2 hrs)
    CURR650 Improving Instruction through Inquiry and
        Assessment (2 hrs)
    CURR694 Seminar: Common Learnings ( 2 hrs )
    Two courses from the following:
        CURR560 School and Classroom Discipline (2 hrs)
        CURR660 Curriculum Foundations (2 hrs)
        CURR510 Developing Creativity in the Classroom (2 hrs)
        EDPS603 Principles of Classroom Learning (2 hrs)
```

Elective Courses
13 hours
(these may include culminating project)
Program Total
34 hours

## Note:

*Foundations courses are required for all master of arts in curriculum and instruction programs. These courses provide the basis on which all subsequent courses are built and must be taken within the first 18 hours of course work.

## Comprehensive Examination

If selected, the comprehensive examination for the common learnings program requires students to apply information from their courses to specific educational settings. Exams must be completed within a three (3) hour period.

Students will be required to answer three of four questions. The questions will emerge from the following knowledge base areas:

1. The foundations of curriculum, including forces impinging on schooling, curriculum philosophies and theories, and how these are related to contemporary school issues.
2. The design, implementation and evaluation of curriculum.
3. The proposals and practices of instructional improvement.
4. A question from one of the two courses selected from the listed options.

If a student does not pass the comprehensive examination he/she may retake the test the following semester. If he/she fails only two questions, the next exam will be limited to those areas the student failed. Students may retake a failed comprehensive exam each time it is administered. After one year has elapsed the I grade reverts to an E.

## MASTER OF ARTS in Reading (RDNG)

## Program Overview

The reading program area offers a master of arts degree and a program of study leading to a reading specialist endorsement. The mission of the program focuses upon the professional preparation of classroom teachers; special teachers of reading at the elementary and secondary levels; supervisory reading specialists such as consultants, coordinators and supervisors; and
specialists for reading clinic positions including clinic directors and reading counselors. This mission is accomplished by providing students with a strong theoretical grounding in the field of reading, both historic and current, as well as the application skills necessary to implement reading instruction in today's varied educational settings. In addition, the program is consistent with the Minimum Standards for Professional Training of Reading Specialists as defined by the International Reading Association.

## Model

Advanced programs in the Department of Teacher Education have as a unifying theme: Inquiry, Advocacy and Leadership in Education for a Diverse and Democratic Society. In developing the theme for the master of arts in reading, the reading faculty chose to adopt this same theme with a focus on literacy education: Inquiry, Advocacy and Leadership in Literacy Education for a Diverse and Democratic Society.

## Admission Requirements

See general admission requirements on page 127.

## Retention Requirements

Retention requirements can be considered a mid-point check in the master's degree programs. It is necessary to successfully complete all retention requirements before proceeding with the remainder of the program.

To gain approval to proceed with exit requirements, each student must:

1. Complete a total of 12 but no more than 18 hours of graduate credit with an overall GPA of 3.0 or better;
2. Complete RDNG655, RDNG656, RDNG657 and RDNG658 with a grade of B or better in each class; and
3. Successfully complete all required program assessments.

Exit Requirements
In order to graduate, each student is expected to:

1. Complete all Graduate School and the Department of Teacher Education requirements for a master's degree, following the program of study approved by the faculty adviser.
2. Complete all required program assessments.

## Curriculum

The curricular requirements include a minimum of 30 graduate-level hours, to be distributed as follows:

```
Foundations Courses
                        9 hours
        EDPS600 Human Development (2 hrs)
        One course from the following:
            CURR616 Issues in Elementary School Curriculum (2 hrs)
            CURR620 Issues in Middle Level Curriculum (2 hrs)
            CURR630 Issues in Secondary School Curriculum (2 hrs)
            CURR655 Curriculum Foundations (2 hrs)
    One course from the following:
        SOFD550 Philosophy, Ethics and Teaching (2 hrs)
        SOFD572 The History of American Schooling and Literacy (3 hrs)
        SOFD580 Sociology of Education (2 hrs)
    One course from the following:
        EDPS677 Methods in Quantitative Research (3 hrs)
        EDPS687 Qualitative/Interpretive Research (3 hrs)
```

Reading Courses
23-24 hours
RDNG655 The Integrated Literacy Curriculum (3 hrs)
RDNG656 Language Development, Literacy and the Young
Child (3 hrs)
RDNG657 Comprehension and the Content Areas (3 hrs)
RDNG658 Reading, Writing and the Inquiry Process (3 hrs)
Elective course in Reading (2-3 hrs)
RDNG678 Literacy Assessment (3 hrs)
RDNG686 Practicum: Designing Literacy Intervention Programs (3 hrs)
RDNG695 Seminar: The Reading Professional (3 hrs)
Program Total
32-33 hours

# MASTER OF ARTS in Social Foundations (SFDI, SFDD) 

## Program Theme

The social foundations graduate program seeks students with a broad range of professional goals who are eager to explore issues pertaining to quality of life, equity and ethics in schools and society. Graduate students in social foundations are expected to assess the complex forces - economic, social and political - that shape the structure and control of education both nationally and internationally. Students also engage in a theoretical analysis of cultural diversity as it impacts the practices and processes of education and life in a democratic society.

The goal of the program is to strengthen and inform a commitment to education for participatory democracy in a pluralistic society. This program is in compliance with the Standards for Academic and Professional Instruction in Foundations of Education, Educational Studies and Educational Policy as defined by the American Educational Studies Association.

## Model

Eastern Michigan University's advanced professional education program promotes inquiry, advocacy and leadership in education for a diverse and democratic society.

## Admission Requirements

See general admission requirements on page 127.

## Retention Requirements

Retention requirements can be considered a mid-point check in the master's degree program. It is necessary to successfully complete all retention requirements before proceeding with the remainder of the program.

To gain approval to proceed with exit requirements, each student must:

1. Complete a total of 12 but no more than 15 hours of graduate credit with an overall GPA of 3.0 or better;
2. In consultation with the adviser, establish a mid-point review committee consisting of three or four faculty members, two of whom must be from social foundations;
3. Write a three-page interim prospectus which will include: (a) a statement of professional goals; (b) a self-assessment of professional development since entering the program; (c) an identification of key issues to be pursued for the remainder of the program; and (d) a plan of action for the culminating experience;
4. Develop a portfolio that contains the prospectus described in number 3, the approved program of study, and three examples of graduate work to verify that the student is developing appropriate skills in research and critical analysis; and
5. Make an oral presentation of the portfolio to the mid-point review committee (students are encouraged to invite their peers to the meeting). If the student's progress is judged unsatisfactory at the time of the mid-point review, a plan of remediation will be developed by the adviser in consultation with the student and the mid-point review committee.

## Exit Requirements

In order to graduate, each student is expected to:

1. Complete a minimum of 30 hours of graduate credit applicable to the program;
2. Maintain a minimum GPA of 3.0;
3. Successfully complete a thesis or take the advanced seminar, which will include a project or comprehensive examination;
4. Fill out an application for graduation and obtain the adviser's recommendation;
5. Meet all other requirements for a master's degree adopted by the Graduate School;
6. Complete an exit interview with two members of the social foundations faculty to discuss the strengths and weaknesses of the master's program.

## Program Description

Students pursuing degrees in social foundations of education may choose one of two programs: interdisciplinary cultural studies, or teaching for diversity. The first area of emphasis allows students to pursue individualized research interests: it provides an excellent preparation for advanced graduate study. The second concentration is more applied in focus and emphasizes:

- cultural diversity/multicultural education
- gender and exceptionality
- poverty/urban education
- theoretical frameworks/practical applications
- educational innovation and reform

Both concentrations equip students with skills in qualitative research so that they can analyze the social implications of educational policy, and can better understand the cultural, political and ethical dimensions of education in a pluralistic society.

## Curriculum Requirements

Interdisciplinary Cultural Studies Concentration (SFDI)
The curricular requirements include a minimum of 32 graduate-level hours, to be distributed among the following:

Required Courses........................................................................... 16 hours
SOFD535 Multicultural and International Education (2 hrs)
SOFD550 Philosophy, Ethics and Teaching (2 hrs)
SOFD572 The History of American Schooling and Literacy (3 hrs)
SOFD580 Sociology of Education (2 hrs)
SOFD694 Advanced Seminar (2 hrs)
EDPS687 Qualitative/Interpretive Research (3 hrs)
One course from the following:
SOFD691 Thesis (2 hrs)
SOFD698 Independent Study (2 hrs)
Elective Courses
..8-10 hours
Eight to 10 hours selected in consultation with the adviser from social foundation courses.

Other Elective Courses .6-8 hours
Six to eight hours selected in consultation with the adviser from outside of social foundation.

Program Total
32 hours

## Teaching for Diversity Concentration (SFDD)

The curricular requirements include a minimum of 31 graduate-level hours, to be distributed among the following:

```
Required Courses.
```

$\qquad$

``` 15-17 hours
SOFD535 Multicultural and International Education (2 hrs)
SOFD694 Advanced Seminar (2 hrs)
EDPS687 Qualitative/Interpretive Research (3 hrs)
Two courses from the following:
SOFD550 Philosophy, Ethics and Teaching (2 hrs)
SOFD572 The History of American Schooling and Literacy (3 hrs)
SOFD580 Sociology of Education (2 hrs)
One course from the following:
SOFD691 Thesis (2 hrs)
SOFD698 Independent Study (2 hrs)
One course from the following:
CTAC579 Studies in Intercultural Communication (3 hrs)
CSAP571 Cross-cultural Counseling (2 hrs)
```

Restricted Electives
.8 -11 hours
Four courses, select one course from each group:
Group A: Perspectives on ethnicity and social class
ANTH509 Personality and Social Systems (2 hrs)
BILN623 Bilingual Education Public Policy in the U.S. (3 hrs)

```
BILN624 Bilingual Educational Theory (3 hrs)
EDPS617 Children in Poverty: Educational Implications (2 hrs)
HIST531 Studies in Black History (3 hrs)
HIST532 Studies in Native American History (3 hrs)
SOCL/ANTH502 Racial and Cultural Minorities ( 3 hrs )
SOFD573 Black Experience and American Education (2 hrs)
SPNH471G Culture and Literature of the Hispanic Groups in the United States (3 hrs)
Group B: Perspectives on gender
SOCL515 Sociology of Women (3 hrs)
SOFD570 Women and Pedagogy: Life Histories (3 hrs)
WMST525 Technology, Social Change and the Role of Women (3 hrs)
WMST550 Feminist Thought (3 hrs)
Group C: Perspectives on exceptionality
CURR572 Education of the Gifted Child (2 hrs)
CURR676 Education of the Gifted and Talented: Underrepresented Populations (2 hrs)
EDPS509 Problems in Child Psychology (2 hrs)
EDPS617 Children in Poverty: Educational Implications (2 hrs)
SPGN510 The Exceptional Child in the Regular Classroom (3 hrs)
SPGN5 11 The Instruction and Behavior Management of the Student with Disabilities in the Regular Classroom (3 hrs)
SPGN621 Law and Public Policy for Individuals with Disabilities (3 hrs)
SPGN630 Integrated Curriculum and Educational Programming for Mathematics and Motor Development (3 hrs)
SPSI508 Multicultural Issues in Intervention for Communication Disorders (2 hrs)
Group D: Perspectives on classroom practice
CURR510 Developing Creativity in the Classroom (2 hrs)
CURR512 Enriching the Elementary Classroom Program (2 hrs)
CURR552 The Pedagogy of Group Learning ( 2 hrs )
CURR560 School and Classroom Discipline (2 hrs)
ECE601 Helping Young Children in Crisis Through Curricular Activities (2 hrs)
EDPS550 Motivation to Learn (2 hrs)
EDPS617 Children in Poverty: Educational Implications (2 hrs)
RDNG656 Literary Instruction in a Multilingual Society (2 hrs)
```

Other Elective Courses .4-8 hours

Program Total ........................................................................ 31 hours

## MASTER OF ARTS in Schools, Society and Violence (SSV)

This interdisciplinary master's degree is intended for students who want to pursue advanced studies in conflict, crime and cooperation in the school context and is offered through the Department of Sociology, Criminology and Anthropology and the Department of Teacher Education. Students will gain an understanding of theoretical concepts, methodological techniques and the application of substantive interdisciplinary knowledge, enabling them to analyze, understand and effectively intervene to reduce harmful relational and institutional practices in school settings. Essential dimensions of the program include a linked internship in school settings, a student observation requirement and a thesis or non-thesis requirement through which students demonstrate the ability to integrate and apply relevant knowledge to address a particular dimension of the problem of school violence.

## Objectives

Program graduates will be able to demonstrate:

1. Through written and oral forms the ability to analyze complex problems associated with school violence;
2. An understanding of the larger social, historical, economic and ideological context producing violent social relations within schools;
3. Competence in qualitative and quantitative research methods; and
4. The ability to create positive solutions to school violence.

## Admission Requirements

Applicants must:

1. Comply with the Graduate School admission requirements;
2. Have at least a 2.7 undergraduate GPA;
3. Submit a letter of interest describing the applicant's career goals and reasons for pursuing this master's degree; and
4. Submit two letters of recommendation that address the applicant's professional commitment, experience and potential.

## Conditional Admission

Conditional admission may be granted at the discretion of the graduate committee.

```
Core courses: Crime, Conflict and Cooperation....................... }18\mathrm{ hours
        Foundational Requirement 2 hours
            SOCL694 Seminar (2 hrs)
        Research Methods Requirements 6 hours
        SOCL678 Methods in Social Program Evaluation (3 hrs)
        EDPS687 Qualitative/Interpretive Research (3 hrs)
        Theoretical Course Requirements 10 hours
        SOFD572 The History of American Schooling and
        Literacy (3 hrs)
        SOFD580 Sociology of Education (2 hrs)
        CRM550/SOCL550 Domestic Violence and Sexual Assault (3 hrs)
        SOCL508 Social Psychology (3 hrs)
```

Substantive Focus: Discipline, Schooling and Social Control...8-14 hours
Core courses 4 hours
CURR560 School and Classroom Discipline Management (2 hrs)
SOFD541 Field Studies in Education (2 hrs)
Restricted Elective Courses 2-7 hours
Two to seven hours from the following:
CRM650 Media, Crime and Justice (3 hrs)
CRM697/698/699 Independent Study ( $1 / 2 / 3 \mathrm{hrs}$ )
SOCL697/698/699 Independent Study (1/2/3 hrs)
EDPS617 Children in Poverty:
Educational/Implications (2 hrs)
SOFD535 Multicultural and International Education (2 hrs)
SOFD581/WMST581 Gender and Education (3 hrs)
SWRK610 Empowerment: Social Justice and Social
Change (2 hrs)
SWRK656 Crisis Intervention (2 hrs)
Elective Course
2-3 hours
Thesis/Non-Thesis Project. ..... 0-4 hoursOne option from the following:
Option I: Thesis

4 hours

Four hours from the following:
SOFD690/691/692 Thesis ( $1 / 2 / 3 \mathrm{hrs}$ )
SOCL690/691/692 Thesis (1/2/3 hrs)

Option II: Non-Thesis Project
0 hours
Non-thesis students must submit two essays dealing with a methodological, theoretical andlor practical problem in power, crime, conflict and cooperation within the schools that reflects the interests of the student and readers.

Program Total 31 hours

## Graduate Certificate in Educational Assessment

The focus of this certificate program is to improve student learning by way of assessment. Teachers and other educators earning this certificate will understand what constitutes high quality educational assessment and will recognize the relations among assessment, motivation, and student learning. Participants will be equipped to respond intelligently to the demands of government education policies, especially as they relate to assessment. They will become familiar with legal and ethical issues associated with educational assessment, will be able to analyze student assessment data from various sources, and will be able to evaluate assessment research.

```
Required Courses
    18 hours
    EDPS626 Principles ad Issues in Educational Assessment (3 hrs)
    EDPS627 Designing Classroom Assessments (3 hrs)
    EDPS628 Analyzing Student Learning (3 hrs)
    EDPS629 Assessment for School/Program Improvement (3 hrs)
    EDPS667 Principles of Educational Research (3 hrs)
    EDPS688 Internship in Educational Psychology (3 hrs)
```


## Certificate Total

## Graduate Certificate in Educational Media and Technology (EDMT)

The mission of this certificate is to prepare professionals who are capable of facilitating student learning in a variety of settings. The program is designed to provide students with both the knowledge base and the application skills that are required to use technology effectively in education. Focusing on the design, development, utilization, management and evaluation of instructional systems moves us toward achieving this mission.

Admission Requirements
See general graduate school admission requirements.

## Certificate Requirements

This certificate requires 18 hours of course work to be distributed among the following:

Required Courses......................................................................... 18 hours
EDMT602 Technology and Student-Centered Learning (3 hrs)
EDMT603 Technology Enhanced Learning Environments (3 hrs)
EDMT623 Instruction Design (3 hrs)
EDMT627 Advanced Technical Issues in Educational
Technology (3 hrs)
EDMT628 The Use and Design of Online Resources in Education (3 hrs)
EDMT653 Issues and Emerging Educational Technologies (3 hrs)
Certificate Total 18 hours

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

## COLLEGE OF HEALTH AND HUMAN SERVICES

Dean:<br>Jeanne Thomas<br>206 Everett L. Marshall Building<br>734.487.0077<br>Associate Dean:<br>Polly Buchanan<br>206 Everett L. Marshall Building<br>734.487.0077<br>Coordinator - CHHS Advising:<br>Martha Sutton<br>206 Everett L. Marshall Building 734.487.0918

## Administrative Assistant:

Judy Stokes
206 Everett L. Marshall Building 734.487.0077

Schools

- Health Promotion and Human Performance
- Health Sciences
- Nursing
- Social Work


## Mission Statement

To prepare students to become professionals within the Health and Human Services systems.

The College of Health and Human Services provides tomorrow's professionals with the appropriate combination of knowledge and skills to enable them to enhance the quality of life and facilitate social change to meet societal needs. The programs in the college focus on the preparation of professionals for a unique combination of health and human service disciplines. As a result, curricula are built around an integration of knowledge with practice. Experiential education that is community-based strongly links theory and practice. The curricula focus on a holistic view of individuals, groups, families, communities, the process of change and the interrelationships of people, institutions and services.

The Everett L. Marshall Building provides excellent facilities for the Schools of Health Promotion and Human Performance; Health Sciences; Nursing; and Social Work. The design of the Marshall building addresses four goals: to foster a sense of community; to provide a healthy environment by using green/sustainable finishes and furnishings; to provide cutting-edge technology for teaching and learning; and to use universal design to meet the needs of everyone who uses the building, regardless of their physical ability or stature.

The classrooms in Marshall have cutting-edge instructional technology controlled from a touch panel at the podium. The furnishings in the rooms are adjustable to accommodate students of different physical stature or those with disabilities. Student tables and chairs are on casters so that rooms can easily be arranged to accommodate different teaching and learning styles, e.g., lecture, small group, large group or role-play. There are more than 1,000 network connections in the building to enable students with laptop computers to easily communicate with peers or professors and to provide easy access to the Internet. Wireless internet access is now available in the second floor commons area. Two student commons areas and a café in a two-story atrium space provide comfortable environments for studying or group work. The building also serves as a demonstration site for environmentally-conscious design. Furnishings and finishes were selected to "do no harm" to the earth's environment.

State-of-the-art laboratory spaces include the clinical lab sciences suite, two occupational therapy labs, a nursing skills lab, an assessment lab and a social work laboratory. A home care unit resembles an apartment. Students can mock-up different home environments to simulate clients' homes for delivery of home health care or to design supportive environments for people who are frail or disabled.

The Marshall Building houses the dean of the College of Health and Human Services, the School of Health Sciences, and the schools of Nursing and Social Work. The School of Health Promotion and Human Performance is located next door in the Porter Building (Room 318-319). The goal of the college is to create an environment that fosters a sense of community and belonging for all students, faculty and staff. Advising for graduate students is on the third floor of the Marshall Building.

## Graduate Degrees and Certificate Programs

The college offers the following graduate degrees and certificate programs in the various disciplines of health and human services. Admission and degree requirements for each of the programs can be found in the departmental sections of this catalog.

## Health Promotion and Human Performance

MASTER OF SCIENCE in Health Education
MASTER OF SCIENCE in Physical Education Pedagogy
MASTER OF SCIENCE in Physical Education Interdisciplinary Adapted Physical Education
MASTER OF SCIENCE in Physical Education Sports Management MASTER OF SCIENCE in Physical Education Sports Medicine - Exercise Physiology

GRADUATE CERTIFICATE in Orthotics or Prosthetics

```
Health Sciences
    MASTER OF SCIENCE in Occupational Therapy
    MASTER OF OCCUPATIONAL THERAPY
    COMBINED BACHELOR OF SCIENCE and MASTER OF
        SCIENCE in Occupational Therapy
    MASTER OF SCIENCE in Clinical Research Administration
    MASTER OF SCIENCE in Human Nutrition
        MASTER OF SCIENCE in Human Nutrition - Nutrition
            Therapy
        MASTER OF SCIENCE in Human Nutrition - Aging
        MASTER OF SCIENCE in Human Nutrition - Prevention
        MASTER OF SCIENCE in Human Nutrition -
            Coordinated Program in Dietetics
    MASTER OF SCIENCE in Physical Education Sports Medicine
        MASTER OF SCIENCE in Physical Education Sports
            Medicine - Adult/Corporate Fitness
        MASTER OF SCIENCE in Physical Education Sports
            Medicine - Biomechanics
    GRADUATE CERTIFICATE in Clinical Research Administration
    GRADUATE CERTIFICATE in Health Administration
    GRADUATE CERTIFICATE in Public Budget Management
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Nursing
MASTER OF SCIENCE in Nursing
GRADUATE CERTIFICATE in Teaching in Healthcare Systems
ADVANCED GRADUATE CERTIFICATE Post Master's Adult
Nurse Practitioner
Social Work
MASTER OF SOCIAL WORK
GRADUATE CERTIFICATE in Community Building
GRADUATE CERTIFICATE in Gerontology
GRADUATE CERTIFICATE in Gerontology specializing in
Dementia
GRADUATE CERTIFICATE in Nonprofit Management

# School of Health Promotion and Human Performance 

Campus Address: 319-J Porter Building<br>Telephone: 734.487.0090<br>Internet: www.emich.edu/public/hperd/hperd.html<br>E-mail: ian.haslam@emich.edu

See pages 172, 211, 229 and 245 for course descriptions.

## Model

Eastern Michigan University's advanced professional education programs develop leaders who demonstrate reflective thought and scholarship within the context of a culturally diverse society. The master of science in physical education and the master of science in health education develop advanced knowledge, values and skills as they relate to healthy lifestyles. The objective of the programs is to expand the professional knowledge, skills and leadership qualities of physical educators and exercise science and health professionals.

Graduate study in the School of Health Promotion and Human Performance includes a master of science in health education with concentrations in school health and community health; a master of science in physical education with concentrations in pedagogy, interdisciplinary adapted physical education, sports management and sports medicine - exercise physiology; a post-graduate certificate in orthotics or prosthetics; and non-degree postbaccalaureate study for recertification credits and for non-physical education master's degree candidates.

## Master of Science in Health Promotion and Human Performance Programs

Objectives
Upon completion of the master of science degree, students will:

1. Conduct and utilize research for problem solving;
2. Acquire skills and knowledge necessary to perform in a variety of leadership roles;
3. Develop an in-depth understanding of a specialty area within health, physical education and sports medicine;
4. Receive preparation for further graduate work at the doctoral level;
5. Have an opportunity to expand their professional involvement and leadership through participation in professional societies;
6. Receive preparation for diverse employment opportunities in appropriate agencies; and
7. Utilize philosophy when making decisions concerning professional and personal behaviors.

## Admission Requirements

Applicants must:

1. Meet Graduate School requirements;
2. Hold an undergraduate degree from an accredited institution;
3. Have an undergraduate major/minor in physical education for the pedagogy track or an undergraduate major in an appropriate area for the remaining tracks;
4. Have a minimum 2.75 GPA ;
5. Achieve a 950 on Verbal and Quantitative portions of GRE (GRE to have been taken within five years) prior to the time of application;
6. Submit three professional letters of reference; and
7. Interview for assistantships; interviews recommended for all other students.

## Dismissal from Program Policy

A student may be subject to dismissal from graduate endorsement or degree programs in this department if the student:

1. Does not maintain a 3.0 (B) cumulative GPA overall and in special education courses (graduate and undergraduate) for two successive enrollment periods;
2. Does not demonstrate by performance the reasonable aptitude, maturity, stability, skill and understanding necessary for success in the professional field of special education; and
3. Does not demonstrate by performance the ability to build adequate interpersonal and professional relationships.

A student identified as being at risk for dismissal from the endorsement or degree programs will have the opportunity to meet with faculty in the program area to develop a plan for correction of any deficiency. The opportunity to correct deficiencies will not be extended beyond two enrollment periods.

The continuance or termination decision will be made by the faculty in the program area. Students may request a meeting with the faculty to apprise them of extenuating circumstances. The faculty decision will be final. The decision will be transmitted to the student in writing by the department. If the student is dismissed from the department's program, the Graduate School will be notified to change the student's admission status from degree admission status to that of a self-improvement student.

# MASTER OF SCIENCE in Health Education (HLTE) 

Research Core.<br>.6-9 hours<br>Select from one of the following:<br>Thesis Option:<br>PHED505 Basic Statistics in Physical Education (3 hrs)<br>PHED677 Research, Theory and Design in Physical Activity (3 hrs)<br>HLED692 Thesis in Health Education (3 hrs)<br>Graduate Project Option:<br>PHED505 Basic Statistics in Physical Education (3 hrs)<br>HLED690 Graduate Project in Health Education (3 hrs)

Education Core 21 hours
Select from one of the following:
School Health Education Core:
HLED550 Theoretical and Philosophical Foundations of Health Education (3 hrs)
HLED555 Current Health Issues and Trends (3 hrs)
HLED570 Measurement in Health Education (3 hrs)
HLED558 Health Education Methods and Materials (3 hrs)
HLED560 School Health Education Programming and Curriculum (3 hrs)
HLED575 Implementation and Administration of Health Education Programs (3 hrs)
HLED695 Seminar in Health Education (3 hrs)
Community Health Education Core:
HLED550 Theoretical and Philosophical Foundations of Health Education (3 hrs)
HLED555 Current Health Issues and Trends (3 hrs)
HLED570 Measurement in Health Education (3 hrs)
HLED558 Health Education Methods and Materials (3 hrs)
HLED562 Health Education Program Planning (3 hrs)
HLED575 Implementation and Administration of Health Education Programs (3 hrs)
HLED695 Seminar in Health Education (3 hrs)
Suggested elective courses
.6-9 hours
*Six to nine credit hours as approved by health education...................................... 6 adver. HLED565 Women's Health ( 3 hrs )
$\dagger$ HLED495 Health Education for Diverse Populations (3 hrs) $\dagger$ HLED460 Concepts of Sexuality Education (3 hrs) $\dagger$ HLED490 Drug Use and Abuse (3 hrs)

Program Total
36 hours
Note:
*Elective hours can come from HLED courses or other health-related courses offered by other programs and departments. These electives are selected with guidance and approval of the assigned health education adviser.
$\dagger$ The above 400 -level courses will be presented for graduate credit upon approval from the Graduate School.

## MASTER OF SCIENCE in Physical Education Pedagogy (PEP)

Core Courses
8,9 or 12 hours
PHED505 Basic Statistics in Physical Education (3 hrs)
PHED677 Research, Theory and Design in Physical Activity (3 hrs)
Select from either option I or option II:
Option I: PHED690/691/692 Thesis (6 hrs)
Option II: PHED698/699 Independent Study (2-3 hrs)
Pedagogy Emphasis Area Courses.8 hours
PHED521 Legal Liability of Educators and Athletic Coaches (2 hrs)PHED583 Teaching Effectiveness in Physical Education (2 hrs)
PHED584 Physical Education Curriculum and InstructionalDesign (2 hrs)
PHED587 Philosophy of Physical Education/Sport (2 hrs)
Suggested elective courses 9-17 hours
Nine to 17 hours selected in consultation with the graduate adviser.HLED546 Alcohol Use and Abuse (2 hrs)PHED568 Physical Fitness (2 hrs)PHED578 Motor Development and Learning ( 2 hrs )PHED581 Physical Education for Students with Disabilities (2 hrs)PHED582 Skill Analysis (2 hrs)PHED665 Sport Psychology (2 hrs)
Cognate Courses. ..... 0-4 hours
Zero to four hours selected in consultation with the graduate adviser.
Program Total33 hours
MASTER OF SCIENCE in Physical Education Interdisciplinary Adapted Physical Education (PEAD)
Core Courses ..... 8,9 or 12 hours
PHED505 Basic Statistics in Physical Education (3 hrs)
PHED677 Research, Theory and Design in Physical Activity (3 hrs)Select from either option I or option II:
Option I: PHED690/691/692 Thesis (6 hrs)
Option II: PHED698/699 Independent Study (2-3 hrs)9-12 hours
Nine to 12 hours from the following:
PHED581 Physical Education for Students with Disabilities (2 hrs)PHED583 Teaching Effectiveness in Physical Education (2 hrs)
PHED584 Physical Education Curriculum and InstructionalDesign (2 hrs)
PHED587 Philosophy of Physical Education/Sport (2 hrs)
*PHED865 Curriculum and Instruction in Adapted PhysicalEducation (3 hrs)
*PHED866 Research on Sports for Athletes with Disabilities (3 hrs)
Special Education Cognate Courses. 9 hours
SPGN510 The Exceptional Child in the Regular Classroom (3 hrs)SPGN615 Social Psychology of Disability: Family, School andSociety (3 hrs)
One course from the following:
SPGN511 The Instruction and Behavior Management of theStudent with Disabilities in the Regular Classroom (3 hrs)
SPCI557 Mental Retardation: Nature, Needs and Issues (3 hrs)
Cognates Courses4-7 hours
Four to seven hours selected from early childhood, social work, sociology
and criminology areas:
ECE601 Helping Young Children in Crisis Through CurricularActivities (2 hrs)

ECE610 Teacher-Parent Partnerships in Early Education (2 hrs) $\dagger$ EDPS617 Children in Poverty: Educational Implications (2 hrs)
ECE618 Play and Human Development (2 hrs)
ECE641 Developmental Assessment of the Young Child: Theory and Practice (2 hrs)
CRM506 Criminology (3 hrs)
CRM507 Criminal Justice in Contemporary Society (2 hrs)
CRM513 Social Deviance (3 hrs)
SOCL500 Man in Society (2 hrs)

SOCL/ANTH502 Racial and Cultural Minorities (3 hrs) SOCL503 The Family as an Institution (3 hrs)
SOCL508 Social Psychology (2 hrs)
SOCL509 Personality and Social Systems (2 hrs)
Program Total 33 hours

## Note:

*Courses offered at Michigan State University. The Adapted Physical Education section requires at least one course to be taken at Michigan State University.
$\dagger$ Required course in this block.

## MASTER OF SCIENCE in Physical Education Sports Management (SPMG)

Core Courses 8 or 12 hours<br>PHED505 Basic Statistics in Physical Education (3 hrs) PHED677 Research, Theory and Design in Physical Activity (3 hrs)<br>Select from either option I or option II:<br>Option I: PHED690/691/692 Thesis (6 hrs)<br>Option II: PHED698 Independent Study (2 hrs)<br>Educational Leadership Courses<br>$\qquad$ 6 hours<br>Six hours from the following:<br>EDLD514 Educational Leadership Theory and Practice (3 hrs)<br>EDLD510 Educational Organization (3 hrs)<br>EDLD613 Introduction to Higher Education (3 hrs)<br>EDLD622 Organization and Administration of Higher Education (3 hrs)

Athletic Administration Courses $\qquad$ 15-16 hours
PHED521 Legal Liability of Educators and Athletic Coaches (2 hrs)
SMGT561 Supervision in Physical Education (2 hrs)
SMGT562 Facilities Planning and Development in Physical Education and Athletics (2 hrs)
SMGT510 Administration of Athletics (2 hrs)
PHED566 Sport in American Society (2 hrs)
SMGT588 Administrative Problems in Physical Education and Athletics (2 hrs)
PHED688/689 Internship (3/4 hrs)
Supporting Courses $\qquad$ $0-4$ hours Zero to four hours from the following:

COUN550 Introduction to Student Affairs in Higher Education (3 hrs)
COUN655 College Student Development Theory (3 hrs)
PHED565 Problems in Intramural and Extramural Sports (3 hrs)
HLED546 Alcohol Use and Abuse (3 hrs)
PHED665 Sport Psychology (3 hrs)
PHED572 Design and Implementation of Wellness Programs (2 hrs)

Program Total .33 hours

## MASTER OF SCIENCE in Physical Education Sports Medicine Exercise Physiology (SMEP)

Core Courses $\qquad$ 8,9 or 12 hours
PHED505 Basic Statistics in Physical Education (3 hrs)
PHED677 Research, Theory and Design in Physical Activity (3 hrs)
Select from either option I or option II:

Option I: PHED690/691/692 Thesis (6 hrs) Option II: PHED698/699 Independent Study (2/3 hrs)

Exercise Physiology Courses. $\qquad$ 6 hours
PHED642 Advanced Exercise Physiology I (3 hrs)
PHED644 Advanced Exercise Physiology II (3 hrs)

## Supporting Courses. <br> Five to 15 hours from the following:

$\qquad$ $.5-15$ hours

PHED521 Legal Liability of Educators and Athletic Coaches (2 hrs)
PHED578 Motor Development and Learning (2 hrs)
PHED665 Sport Psychology (2 hrs)
PHED630 Electrocardiography (3 hrs)
PHED637 Techniques of Graded Exercise Testing (3 hrs)
PHED650 Biomechanics I: Kinematics of Human Motion (3 hrs)
PHED652 Biomechanics II: Kinetics of Human Motion (4 hrs) CHEM451 Biochemistry I (3 hrs) DTC548 Metabolic Nutrition Care I (3 hrs)
ZOOL536 Vertebrate Tissues: Structure and Function (3 hrs) BIOL540 Cell Biology (3 hrs)

Cognate Courses. .0-5 hours
Zero to five hours selected in consultation with the graduate.............................................
Program Total
33 hours

## GRADUATE CERTIFICATE in Orthotics or Prosthetics (ORTH/ PROS)

Core Courses<br>........................................................................... 31<br>31 hours<br>SPMD580 Introduction to Orthotics and Prosthetics (2 hrs)<br>SPMD581 Musculoskeletal Pathologies for Orthotic and Prosthetic Management (3 hrs)<br>SPMD582 Kinesiology - Biomechanical Basis of Orthotics and Prosthetic Management (3 hrs)<br>SPMD605 Clinical Gait Analysis - Measurement and Interpretation (3 hrs)<br>SPMD620 Clinical Affiliation (250 contact hours) (2 hrs)<br>SPMD630 Research Methods: Orthotics and Prosthetics (3 hrs)<br>SPMD660 Advanced Techniques in Orthotics and Prosthetics (2 hrs)<br>SPMD665 Administration of Orthotics and Prosthetics Facilities in the Public and Private Sectors (2 hrs)<br>EM694 Seminar (2 hrs)<br>Select from either option I or option II:

Option I: Orthotics
SPMD610 Spinal and Upper Extremity Orthotics (3 hrs)
SPMD640 Lower Extremity Orthotics I (3 hrs)
SPMD650 Lower Extremity Orthotics II (3 hrs)
Option II: Prosthetics
SPMD615 Lower Extremity Prosthetics I (3 hrs)
SPMD645 Lower Extremity Prosthetics II (3 hrs)
SPMD655 Upper Extremity Prosthetics (3 hrs)
Certificate Total. 31 hours

## Provisional Certification in Physical Education

Students seeking provisional teacher certification in physical education (K12) must be admitted to the College of Education. Among the prerequisites for admission are a minimum undergraduate GPA of 2.5, a minimum GPA
of 2.75 in the teaching major, and a letter of recommendation. In addition, applicants are required to pass the Michigan Test for Teacher Certification (MTTC) basic skills test.

Students seeking provisional certification will complete a planned program of studies leading toward K-12 certification in physical education. Students must also complete an approved minor in a secondary subject area. Additionally, once course work is completed, students must pass the MTTC.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

SPMD430 Principles of Electrocardiography (3 hrs)<br>SPMD431 Pathology for Sports Medicine (3 hrs)<br>PHED440 Tests and Measurements in Physical Education (3 hrs)<br>RECR481 Adapted Aquatics (2 hrs)<br>HLED460 Concepts in Sexuality Education (3 hrs)<br>HLED490 Drug Use and Abuse (3 hrs)<br>HLED495 Health Education for Diverse Populations (3 hrs)

## School of Health Sciences

Campus Address: 315 Marshall<br>Internet: www.emich.edu/chhs/ahp<br>Telephone: 734.487.4096<br>E-mail: efrancis@emich.edu

See pages 178, 179, 191, 210 and 228 for course descriptions.

The School of Health Sciences offers the master of science degree in occupational therapy (M.S.) for those students with a bachelor's degree in occupational therapy; the master of occupational therapy (M.O.T.) for those with a bachelor's degree in any other field; a combined bachelor of science and master of science in occupational therapy; the master of science in human nutrition with three areas of concentration; the master of science in human nutrition - coordinated program combination delivered completely online; and the clinical research administration master's degree and graduate certificate, as well as graduate-level courses in clinical laboratory sciences and health administration graduate certificates that may be used as approved cognates in other master's degree programs. Students who satisfy the admission requirements of the Graduate School and the specific course prerequisites may enroll in these courses.

## MASTER OF SCIENCE in Occupational Therapy (MSOT)

The occupational therapy program has been providing high-quality, professional education since the early 1940s. Faculty members are nationally recognized for their scholarly productions and numerous contributions to professional organizations, with the majority of the faculty having earned doctoral degrees.

This master's program is open to persons with an undergraduate degree in occupational therapy and who hold initial certification as a registered occupational therapist (OTR) who wish to pursue advanced study in the discipline. Students may attend on a full- or part-time basis. Courses in the major are offered on weekends with an online component to accommodate therapists working full time. Students have the option of choosing from either a thesis or a project track.

Objectives
This program produces advanced O.T. practitioners who are able to critique, develop and use evidence to guide their clinical decisions using basic research skills. Further they are trained to use occupation based theories in daily clinical practice.

## Admission Requirements

## Degree Admissions

Applicants must:

1. Meet the Graduate School degree admission requirements;
2. Provide proof of initial certification as an occupational therapist from the National Board of Certification in Occupational Therapy (NBCOT); and
3. Have a GPA of 3.0 or better in entry-level occupational therapy courses.

## Conditional Admissions

Conditional admission may be granted for a probationary period of two semesters or six credit hours to students lacking the minimum GPA.

## Program Requirements

After admission to the program, students must, in their first semester, meet with their adviser to devise a 32-hour plan of study distributed over three content areas: occupational therapy, research and statistics, and an elective (cognate) area of study.

1. Nine hours of occupational therapy advanced practice/theory courses;
2. Five to 8 hours of research and statistics courses; and
3. Nine to 12 hours of cognate courses. (Students select an area of concentration based on individual interests and career goals.)
4. Six hours of thesis or research project.

## Course Requirements

The M.S. in occupational therapy requires the completion of 32 hours of course work to be distributed among core courses, research and statistics courses, and cognate courses, as follows:

```
Occupational Therapy Courses.
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$\qquad$

``` 9 hours
    OCTH520 Advanced Theory of Practice (3 hrs)
    OCTH530 Critique of Occupational Theory (3 hrs)
    Required occupational therapy elective courses (6 hrs)
    Six hours from the following:
            OCTH590/591/592 Special Topics (1/2/3 hrs)
            OCTH597/598/599 Independent Study (1/2/3 hrs)
            OCTH679/680/681 Special Topics (1/2/3 hrs)
            OCTH693/694/695/696 Seminar in Occupational Therapy
                (1/2/3/4 hrs)
            OCTH697/698/699 Independent Study (1/2/3 hrs)
```

Research and Statistics. $\qquad$ .6-9 hours

Educational Psychology<br>EDPS621 Descriptive Statistics (2 hrs)<br>Or a graduate statistics course approved by the graduate coordinator<br>OCTH540 Research Methods (3 hrs)<br>OCTH640 Methods of Occupational Therapy Research (2 hrs)

Thesis Track 6 hours
OCTH690/691/692 Thesis (1/2/3 hrs)
Project Track
6 hours
OCTH686 Culminating Project I (3 hrs)
OCTH687 Culminating Project II (3 hrs)
Cognate Courses.
.8-12 hours
Eight to 12 hours in an area of personal professional interest selected in consultation with the graduate adviser.

Program Total .32 hours

## MASTER OF OCCUPATIONAL THERAPY (MOT)

Prerequisite Courses<br>ZOOL201/202 Human Anatomy and Physiology II (3-6 hrs)<br>ZOOL417 Neuroanatomy (3 hrs)<br>AHPR200 Medical Terminology (1 hr)<br>One course from the following:<br>MATH360 Statistical Methods (3 hrs)<br>MATH370 Probability and Statistics I (4 hrs)<br>MATH571 Mathematical Statistics I: Probability Theory (3 hrs) MATH574 Applied Statistics (3 hrs)<br>*SOCL250 Social Statistics I (3 hrs)<br>EDPS621 Statistical Applications in Educational Research (2 hrs) EDPS651 Inferential Statistics (2 hrs)<br>One course from the following: EDPS325 Life Span Human Growth and Development (4 hrs) IHHS260 Aging to Infancy (3 hrs)

```
Foundation Core
33 hours
OCTH412 Models of Practice (3 hrs)
OCTH419 Programming I (6 hrs)
OCTH420 Level I Fieldwork I (3 hrs)
OCTH495 Neurological Foundations of Human Occupation (3 hrs)
OCTH500 Philosophy of Occupational Therapy (3 hrs)
OCTH502 Theory and Analysis of Occupation (3 hrs)
OCTH519 Programming II (6 hrs)
OCTH540 Research Methods I (3 hrs)
HLAD510 Medical Care Organization (3 hrs)
Master of Occupational Therapy Core Courses .......................... 33 hours
OCTH516 Level I Community Fieldwork II (3 hrs)
OCTH517 Level I Community Fieldwork III (3 hrs)
OCTH588 Fieldwork Level II: Clinical Skills ( 6 hrs )
OCTH589 Fieldwork Level II: Clinical Skills (6 hrs)
OCTH600 Supervision and Professional Roles (3 hrs)
OCTH619 Programming III (6 hrs)
OCTH686 Culminating Project I (3 hrs)
OCTH687 Culminating Project II (3 hrs)
```

Program Total
66 hours

## COMBINED BACHELORMASTER'S DEGREE in Occupational Therapy (OT-BMOT)

Established in 1941, Eastern Michigan University's Occupational Therapy program has a long-standing tradition of excellence.

Occupational therapy is one of the fastest growing fields in the health professions. Therapists work with people of all ages whose lives have been disrupted by a physical injury or accident, a psychiatric illness or developmental disability. Career opportunities are available in a variety of settings including community agencies, hospitals, rehabilitation facilities, long-term care facilities, schools, camps, home health care agencies and industrial plants.

## The 3+2 Program

Our innovative $3+2$ program will combine three years of undergraduate coursework and two years of upper-level coursework. Students will graduate with both a bachelor of science (B.S.) and master of occupational therapy (M.O.T.) degree after completion of the program. Students who already have a bachelor's degree in another field can enter the upper level portion of the program and earn a M.O.T. degree. After entrance into the upper-level OT courses, students can complete the full-time program in two and a half years, including six months of full-time fieldwork.

## Requirements for Continuance

Your admission to Eastern Michigan University does not guarantee continuance in the occupational therapy program. To be considered for upper-level courses in the program, you must meet the following requirements:

1. Completion of the following prerequisite courses with a grade of $B$ or better in five of the six courses with a maximum of one C :
```
Anatomy and Physiology
    ZOOL201 Human Anatomy and Physiology I (3 hrs)
    ZOOL202 Human Anatomy and Physiology II (3 hrs)
Neuroanatomy
        ZOOL417 Neuroanatomy (3 hrs)
Medical Terminology
    AHPR200 Medical Terminology (1 hr)
Statistics
        One course from the following:
            MATH360 Statistical Methods (3 hrs)
            MATH370 Probability and Statistics I (4 hrs)
            MATH571 Mathematical Statistics I: Probability
                Theory (3 hrs)
            MATH574 Applied Statistics (3 hrs)
            SOCL250 Social Statistics I (3 hrs)
            EDPS621 Statistical Applications in Educational
                Research (2 hrs)
            EDPS651 Inferential Statistics (2 hrs)
Human Growth and Development
        One course from the following:
            EDPS325 Life Span Human Growth and
                Development (4 hrs)
            IHHS260 Aging to Infancy (3 hrs)
```

    2. Cumulative GPA of 2.75 or higher.
    3. Completion of 80 hours volunteer, work or service learning experience
        with individuals who have special needs in a variety of community set-
        tings such as home health agencies, schools, psychosocial clubhouses
        and rehabilitation clinics.
    4. Completion of 85 credit hours.
    
## Upper-Level Screening Procedures

In order to enter the upper level portion of the $3+2$ program, students are required to submit a portfolio for review by the screening committee. The portfolio requirements include résumé, transcripts from all colleges attended, references, documentation of work, volunteer or service-learning experience, narrative statement and an example of your best work (i.e. a paper, presentation, article, creative work). All prerequisite coursework and volunteer hours
must be completed before entering the upper level portion of the program in the following fall semester. Portfolios will be due for review January 5 of every year to be considered for acceptance into the upper level portion of the program. Prior to starting the upper level portion, it is recommended to have all general education requirements completed. Please contact the OT intent adviser at 734.487.4097 for specific portfolio requirements.

## Points of Interest

A minimum of six months of full-time supervised fieldwork is required. Field placements are recommended by faculty and arranged through the occupational therapy program.

In the spirit of advocacy and community involvement, occupational therapy students are encouraged to join EMU's Student Occupational Therapy Association. If you are eligible, you may also join Pi Theta Epsilon, the honorary society for occupational therapy, and/or the University Honors Program.

## Scholarships

The Occupational Therapy program offers a number of scholarships. For more information, contact the occupational therapy intent adviser at 734.487.4097. There are a number of University scholarships also available. Contact the Office of Financial Aid for information at 734.487.0455.

## Accreditation

Eastern Michigan University's Occupational Therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE). ACOTE is located at 4270 Montgomery Lane, P.O. Box 31220, Bethesda, MD, 20824-1220. The phone number is 301.652 .2682 .

## General Education Requirements <br> $\qquad$ <br> 47 hours

## Area I Symbolics and Communication

1. ENGL121 Composition II: Researching the Public Experience (3 hrs)
2. See Undergraduate Catalog, page 23
3. See Undergraduate Catalog, page 23
4. See Undergraduate Catalog, page 23
5. See Undergraduate Catalog, page 23

Area II Science and Technology

1. One course from the following:

CHEM120 Fundamentals of Organic and Biochemistry ( 4 hrs )
BIOL105 Introductory Biology for Non-majors (4 hrs)
2. See Undergraduate Catalog, page 24
3. ZOOL201 Human Anatomy and Physiology I (3 hrs)

Area III Social Sciences

1. See Undergraduate Catalog, page 24
2. See Undergraduate Catalog, page 24
3. See Undergraduate Catalog, page 24
4. See Undergraduate Catalog, page 24

## Area IV Arts and Humanities

1. See Undergraduate Catalog, page 25
2. See Undergraduate Catalog, page 25
3. See Undergraduate Catalog, page 25
4. See Undergraduate Catalog, page 25

Additional Required Courses
12-15 hours
ZOOL202 Human Anatomy and Physiology II (3 hrs)
ZOOL417 Neuroanatomy (3 hrs)
AHPR200 Medical Terminology ( 1 hr )
One course from the following:
MATH360 Statistical Methods (3 hrs)
MATH370 Probability and Statistics I (4 hrs)
MATH571 Mathematical Statistics I: Probability Theory (3 hrs) MATH574 Applied Statistics (3 hrs)
*SOCL250 Social Statistics I (3 hrs)
EDPS621 Statistical Applications in Educational Research (2 hrs) EDPS651 Inferential Statistics (2 hrs)
One course from the following: EDPS325 Life Span Human Growth and Development (4 hrs) IHHS226 Aging to Infancy (3 hrs)

```
Physical Education/Graduation Requirement
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$\qquad$

``` .2 hours
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Major Requirements ..... 65 hours
OCTH412 Models of Practice (3 hrs)
OCTH419 Programming I (6 hrs)
OCTH420 Level I Fieldwork I (3 hrs)
OCTH500 Philosophy of Occupational Therapy (3 hrs)
OCTH502 Theory and Analysis of Occupation (3 hrs)
OCTH516 Level I Community Fieldwork II (3 hrs)
OCTH519 Programming II (6 hrs)
OCTH540 Research Methods I (3 hrs)
OCTH589 Fieldwork Level II: Clinical Skills ( 6 hr )
OCTH600 Supervision and Professional Roles (3 hrs)
OCTH619 Programming III (6 hrs)
OCTH686 Culminating Project I (3 hrs)
OCTH687 Culminating Project II (3 hrs)
HLAD510 Medical Care Organization (3 hrs)
Minor Requirements ..... 0 hoursNo minor is required.
University Elective Courses ..... 26 hours
OCTH100 Orientation to Occupational Therapy, OCTH201 ExploringOccupational Performance in the Community and OCTH350 ExploringOccupational Performance in the Context of a Disability are strongly recom-mended. Please see an intent adviser for further recommended courses.
Program Total152 hours
Note:*This course satisfies both a general education and a major requirement.
MASTER OF SCIENCE in Clinical Research Administration (CRAD)

In recent years, there has been tremendous growth in pharmaceutical and medical device research and development. This growth has been in the traditional pharmaceutical companies and in the emerging biotechnology industry. Many factors have fueled this expansion, including the emergence of new discovery and manufacturing technologies, new drug therapies, the Human Genome Project, high throughput screening and the need for new pharmaceuticals that has been generated by population growth and the aging of the "baby boom" generation. In 2004, a record $\$ 45$ billion was invested in pharmaceutical research in the United States. In order to conduct this growing clinical research enterprise, there needs to be an expanded and better qualified workforce. This workforce must posses the knowledge, skills, attitudes and abilities necessary to accomplish the tasks of coordinating and monitoring clinical studies as well as managing data and interfacing with the regulatory agencies. Eastern Michigan University developed one of the first academic programs designed to produce individuals credentialed to function in the area of Clinical Research Administration and is now a national leader in the area.

The mission of EMU's Clinical Research Administration Program is twofold: a) to provide an opportunity for professionals participating in the drug/device development process to increase their knowledge base as well as their research/creative skills. This should provide a pathway for upward mobility in their professional careers within the drug/device research and development industry. b) to provide an academic experience which includes both didactic information and hands-on preceptorships in order to provide qualified new personnel to the drug development industry.

Toward this end, EMU has developed two interlinked programs. The postbaccalaureate certificate in clinical research administration consists of four courses which provide information concerning the Drug Development Process, Good Clinical Practice (GCP), Federal Regulations and Guidelines (United States and international), Clinical Research Protocol development, implementation and monitoring. Courses are offered in a format which suits the non-
traditional student and allow the student with a full-time job to complete the courses while continuing to work. Upon satisfactory completion of the didactic component of the program, students may apply for admission into a hands-on preceptorship experience with contract research organizations, pharmaceutical firms and clinical facilities which collaborate with the Program.

The masters degree in clinical research administration is designed for individuals who are already employed in the industry and desire increased perspective, competency and a higher level of responsibility. The four required courses in the certificate program are supplemented with program electives, cognate electives and a project or thesis.

EMU's Clinical Research Administration program is fortunate to have the support and collaboration of the following organizations:

- Pfizer, Inc.
- STATPROBE, Inc.
- Consortium of Academic Programs in Clinical Research
- Oakwood Hospital
- Borgess Research Institute
- Providence Hospital
- University of Michigan Hospital
- William Beaumont Hospital
- University of Michigan Center for Clinical Investigation and Therapeutics
- St. Joseph's Mercy Hospital
- Karmanos Cancer Center
- Henry Ford Hospital


## Admission Requirements

1. Documentation that a Baccalaureate degree has been earned must be presented
2. Undergraduate GPA above 2.75
3. A degree in the health professions is suggested, although not required
4. The GRE is not required

One may apply for admission to the program by requesting an application from the Graduate School at Eastern Michigan University by calling 800.GO-TO-EMU, 734.487.3060 or via e-mail at graduateadmissions@emich.edu Students may register for up to six graduate credits without being formally accepted into a graduate program. These credits may later apply to a degree or certificate once the student is accepted into the program. Students who wish to take courses in this manner should register as self-improvement students through Continuing Education.

```
Required Courses............................................................... }13\mathrm{ hours
    CLRA510 Introduction to Drug Development (3 hrs)
    CLRA520 Clinical Study Management I (3 hrs)
    CLRA530 Clinical Study Management II (3 hrs)
    CLRA540 Advanced Topics in Clinical Research Administration (3 hrs)
    CLRA601 Graduate Seminar in Drug Development (1 hr)
```

Elective Courses...................................................................... 18 hours
18 hours from the following:
CLSC432 Clinical Microbiology (3 hrs)
CLSC501 Fundamentals of Epidemiology (3 hrs)
CLRA550 Preceptorship in Drug Development (3 hrs)
CLRA561 Legal Issues in Drug Development (2 hrs)
CLRA571 Grants and Contracts Management for Research
Administration (3 hrs)
CLRA581 Regulatory Affairs in Drug Development (2 hrs)
HLAD510 Health Care in the United States (3 hrs)
HLAD511 Health Law (3 hrs)
NURS500 Advanced Pathophysiology (3 hrs)
CHEM411 Toxicology I (2 hrs)
CHEM412 Toxicology II (2 hrs)
CHEM414 Regulatory Toxicology (2 hrs)
CHEM515 Industrial and Environmental Chemistry (3 hrs)
CHEM555 Neurochemistry (3 hrs)
CHEM571 Advanced Organic Chemistry (3 hrs)
BIOL542 Molecular Genetics (3 hrs)
OCTH540 Research Methods (3 hrs)
Thesis or Project.3-9 hours
One course from the following:
*CLRA690/691/692 Thesis (1-3 hrs)
*CLRA695 Special Project in Clinical Research Administration (3 hrs)
Program Total ..... 34-40 hours
Note:
*Course may be repeated for credit.
MASTER OF SCIENCE in Human Nutrition - Nutrition Therapy
Required Courses
edical Nutrition Ther......................... hrs) DTC628 Medical Nutrition Therapy (3 hrs)
DTC500 Research Design \& Methods (2 hrs)
DTC509 Nutrition Support (3 hrs)
DTC618 Advanced Topics in Nutrition (3 h
DTC538 Outcomes Management (3 hrs)
DTC518 Interdisciplinary Team Functions (3 hrs)
Supporting Courses

$\qquad$
$.0-5$ hours
Zero to five hours from the following:
DTC608 Advanced Topics in Foods (3 hrs)
HRM680 Certified Hospitality Educator Course (CHE) (2 hrs)
DTC638 Cultural Nutrition and Nutritional Therapy (3 hrs)
DTC648 Methods and Strategies for Community-Based Nutrition Services (3 hrs)

            DTC668 Proteins, Lipids, and Carbohydrates (3 hrs)
    
            DTC669 Vitamins and Minerals (3 hrs)
    
            DTC590/591/592 Special Topics ( \(1 / 2 / 3 \mathrm{hrs}\) )
    
            DTC597/598/599 Independent Study ( \(1 / 2 / 3 \mathrm{hrs}\) )
    
            DTC607 Colloquium ( 2 hrs )
    
            DTC679/680/681 Special Topics (1/2/3 hrs)
    
            DTC683 Workshop (2 hrs)
    
            DTC686/687/688/689 Practicum (1/2/3/4 hrs)
    
            DTC697/698/699 Independent Study (1/2/3 hrs)
    
## Culminating Experience

$\qquad$ 6 hours
Select from either option I or option II:
Option I: DTC691/692/690 Thesis I, II, III (2/3/1 hrs) Option II: DTC600/695/650 Research Project I, II, III (2/3/1 hrs)

Cognate Courses (courses taken outside the department)..................2-7 hours Required Cognate Course

EDPS621 Statistical Application of Educational Research (2 hrs) Supporting Courses

Additional courses selected in consultation with the graduate adviser. Deficiencies

Courses determined in consultation with program adviser and completed prior to placement on planned program. Not counted in semester hours for master's degree but are additional hours required for deficient academic courses.
Program Total
30 hours

## MASTER OF SCIENCE in Human Nutrition - Aging

Required Courses. 13 hours
DTC658 Nutrition and Aging ( 3 hrs ) DTC500 Research Design \& Methods (2 hrs) DTC608 Advanced Topics in Foods (3 hrs) DTC618 Advanced Topics in Nutrition (3 hrs) DTC687 Practicum in Aging (2 hrs)

Culminating Experience 6 hours
Select from either option I or option II:
Option I: DTC691/692/690 Thesis I, II, III (2/3/1 hrs) Option II: DTC600/695/650 Research Project I, II, III (2/3/1 hrs)

Cognate Courses (courses taken outside the department) .......... 12 hours Required Cognate Courses

EDPS621 Statistical Application of Educational Research (2 hrs) BIOL511 The Biology of Aging ( 2 hrs )
GERT512 Applied Psychosocial Aspects of Aging (3 hrs) SWRK553 Ethnicity and Gender Issues Among the Aged (2 hrs) SWRK552 Policy Issues and Older People (3 hrs)

## Deficiencies

Courses determined in consultation with program adviser and completed prior to placement on planned program. Not counted in semester hours for master's degree but are additional hours required for deficient academic courses.
Program Total 31 hours

## MASTER OF SCIENCE in Human Nutrition - Prevention

Required Courses<br>17 hours<br>DTC638 Cultural Nutrition and Nutritional Therapy (3 hrs)<br>DTC500 Research Design \& Methods (2 hrs)<br>DTC608 Advanced Topics in Foods (3 hrs)<br>DTC648 Methods and Strategies for Community-Based Nutrition Services (3 hrs)<br>DTC538 Outcomes Management (3 hrs)<br>DTC659 Development of the Entrepreneurial Dietitian (3 hrs)<br>Supporting Courses . $.0-5$ hours<br>Zero to five hours from the following:<br>DTC509 Nutrition Support (3 hrs)<br>DTC518 Interdisciplinary Team Functions (3 hrs)<br>HRM680 Certified Hospitality Educator Course (CHE) (2 hrs)<br>DTC628 Medical Nutrition Therapy (3 hrs)<br>DTC618 Advanced Topics in Nutrition (3 hrs)<br>DTC668 Proteins, Lipids, and Carbohydrates (3 hrs)<br>DTC669 Vitamins and Minerals (3 hrs)<br>DTC590/591/592 Special Topics (1/2/3 hrs)<br>DTC597/598/599 Independent Study ( $1 / 2 / 3 \mathrm{hrs}$ )<br>DTC607 Colloquium (2 hrs)<br>DTC679/680/681 Special Topics (1/2/3 hrs)<br>DTC683 Workshop (2 hrs)<br>DTC686/687/688/689 Practicum (1/2/3/4 hrs)<br>DTC697/698/699 Independent Study (1/2/3 hrs)

Culminating Experience ............................................................ 6 hours
Select from either option I or option II:
Option I: DTC691/692/690 Thesis I, II, III (2/3/1 hrs) Option II: DTC600/695/650 Research Project I, II, III (2/3/1 hrs)
Cognate Courses (courses taken outside the department)..................2-7 hours
Required Cognate Course
EDPS621 Statistical Application of Educational Research (2 hrs)
Supporting Courses
Additional courses selected in consultation with the graduate adviser.
Deficiencies
Courses determined in consultation with program adviser and completed prior to placement on planned program. Not counted in semester hours for master's degree but are additional hours required for deficient academic courses.

Program Total 30 hours

## MASTER OF SCIENCE in Human Nutrition - Coordinated Program in Dietetics (DTCC)

Admission Requirements<br>1. Meet EMU Graduate School and departmental admission requirements (page 139)<br>2. Application fee (\$30)<br>3. GPA of 2.75 or above with completion of undergraduate human nutrition, food science, general chemistry, organic chemistry, statistics, speech, microbiology, general biology, anatomy and physiology, english composition, biochemistry, introduction to computer use and careers in nutrition and dietetics (portfolio development). Student may be admitted conditionally to complete any deficiencies.<br>4. Program application (please see distance education Web site www.emuonline.edu for materials)<br>5. Completed forms for each preceptor and facility (see www.emuonline.edu for forms)<br>6. Original verification statement from didactic program accredited through the Commission on Accreditation for Dietetics Education (CADE).

Required Courses.
11 hours
DTC500 Research Design and Methods (2 hrs)
One course from the following:
DTC628 Medical Nutrition Therapy (3 hrs)
DTC638 Cultural Nutrition and Nutritional Ecology (3 hrs)
DTC608 Advanced Topics in Foods (3 hrs)
DTC618 Advanced Topics in Nutrition (3 hrs)
Required Supporting Courses................................................... 20 hours
DTC531 Nutrition Therapy I Experience ( 2 hrs )
DTC551 Food Systems Management I Experience (2 hrs)
DTC571 Nutrition Therapy II Experience (4 hrs)
DTC631 Nutrition Therapy III Experience (4 hrs)
DTC651 Food Systems Management II Experience (4 hrs)
DTC671 Nutrition Therapy IV Experience (4 hrs)
Culminating Experience. $\qquad$
Select from either option I or option II:
Option I: DTC691/692/690 Thesis I, II, III (2/3/1 hrs)
Option II: DTC600/695/650 Research Project I, II, III (2/3/1 hrs)

| Cognate Courres (courses taken outside the department) | 2 hours |
| :---: | :---: |
| Required Cognate Course | 2 hours |
| EDPS621 Statistical Applications in Educational Research (2 hrs) |  |
| *Deficiencies | 14 hours |
| DTC330 Nutrition Therapy I (3 hrs) |  |
| DTC350 Food Systems Management I (3 hrs) |  |
| DTC370 Nutrition Therapy II (3 hrs) |  |
| DTC430 Nutrition Therapy III $(3 \mathrm{hrs})$ |  |
| DTC450 Food Systems Management II $(1 \mathrm{hr})$ |  |
| DTC470 Nutrition Therapy IV (1 hr) |  |

Program Total
39 hours
Note:
*A portion or all of the deficiencies may be waived by competency.

PHED677 Research, Theory and Design in Physical Activity (3 hrs) Select from either option I or option II:

Option I: PHED690/691/692 Thesis (6 hrs)
Option II: PHED698/699 Independent Study (2/3 hrs)
Adult/Corporate fitness Courses
12 hours
PHED630 Electrocardiography (3 hrs)
PHED637 Techniques of Graded Exercise Testing (3 hrs)
PHED644 Advanced Exercise Physiology II (3 hrs)
PHED572 Design and Implementation of Wellness Programs (3 hrs)
Supporting Courses $\qquad$ ..4-10 hours
Four to 10 hours from the following:
PHED521 Legal Liability of Educators and Athletic Coaches (2 hrs)
PHED578 Motor Development and Learning (2 hrs)
PHED665 Sport Psychology (2 hrs)
PHED642 Advanced Exercise Physiology I (3 hrs)
CHEM451 Biochemistry I (3 hrs)
BIOL540 Cell Biology (3 hrs)
DTC548 Metabolic Nutrition Care I (2 hrs)
ZOOL536 Vertebrate Tissues: Structure and Function (3 hrs)
Cognate Courses. $\qquad$ 1-3 hours
One to three hours selected in consultation with the graduate adviser.
Program Total .33 hours

## MASTER OF SCIENCE in Physical Education Sports Medicine Biomechanics (SMBI)

```
Core Courses 8,9 or 12 hours PHED505 Basic Statistics in Physical Education (3 hrs)
PHED677 Research, Theory and Design in Physical Activity (3 hrs) Select from either option I or option II:
Option I: PHED690/691/692 Thesis (6 hrs)
Option II: PHED698/699 Independent Study (2/3 hrs)
Biomechanics Courses
``` \(\qquad\)
``` 10 hours PHED596 Biomechanics of the Musculo-Skeletal System (3 hrs) PHED650 Biomechanics I: Kinematics of Human Motion (3 hrs) PHED652 Biomechanics II: Kinetics of Human Motion (4 hrs)
Supporting Courses
``` \(\qquad\)
``` \(.5-15\) hours
Five to 15 hours from the following:
PHY431 Intermediate Mechanics II (3 hrs)
PHED642 Advanced Exercise Physiology I (3 hrs)
PHED644 Advanced Exercise Physiology II (3 hrs)
PHED582 Skill Analysis (2 hrs)
PHED665 Sport Psychology (2 hrs)
PHED578 Motor Development and Learning (2 hrs) PHED521 Legal Liability of Educators and Athletic Coaches (2 hrs)
```

Cognate Courses.
.. 0-11 hours
Zero to 11 hours selected in consultation with the graduate adviser.
Program Total
33 hours

## MASTER OF SCIENCE in Physical Education Sports Medicine Adult/Corporate Fitness (SMCA)

Core Courses .................................................................8, 9
PHED505 Basic Statistics in Physical Education (3 hrs)

## GRADUATE CERTIFICATE in Clinical Research Administration (CRAD)

Program Advising

The program provides students with both the knowledge base as well as practical experience in the process of new drug and medical device development. The courses and experiences will function to provide a base of competence that can be used by individuals to seek employment in the pharmaceutical industry and the academic clinical research environment, or by those currently employed by industry or academia, to gain additional competencies.

The program consists of four courses offered in a format that meets the needs of the nontraditional and full-time employed student. Successful completion of the four courses with a grade point average of 3.0 or above, qualifies a student for acceptance into a preceptorship experience where students work with clinical research associates, clinical research coordinators and clinical scientists in a workplace setting to develop and polish monitoring skills.

The only prerequisite to the first course in the sequence is the possession of a baccalaureate degree and admission to the Graduate School.

## Admission Requirements

Applicants must meet the Graduate School degree admission requirements.

## Certificate Requirements

The certificate requires 15 hours of course work to be distributed as follows:
AHPR510 Introduction to Drug Development (3 hrs)
AHPR520 Clinical Study Administration I (3 hrs)
AHPR530 Clinical Study Administration II (3 hrs)
AHPR540 Advanced Topics in Clinical Study Management (3 hrs) AHPR550 Preceptorship in Drug Development (3 hrs)

Certificate Total. .15 hours

## GRADUATE CERTIFICATE in Health Administration (HLAD)

Required Courses.
.6 hours
HLAD520 Healthcare Management Theory (3 hrs)
HLAD524 Healthcare Manager Strategies (3 hrs)
Restricted Electives $\qquad$ .6 hours Six hours from the following:

HLAD510 Medical Care Organization (3 hrs) HLAD511 Health Law (3 hrs)
HLAD512 Reimbursement for Health Care Services (3 hrs) HLAD521 Healthcare Finance (3 hrs)
HLAD523 Medical Practice Managed Care (3 hrs) HLAD550 Internship (2 hrs)
or any other elective courses selected in consultation with a graduate adviser

Certificate Total. .12 hours

GRADUATE CERTIFICATE in Public Budget Management (PBM)
See page 35 for Interdisciplinary studies listings.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

CLSC401 Laboratory Management/Education/Quality Assurance (3 hrs)<br>OCTH412 Models of Practice (3 hrs)<br>OCTH419 Programming I (6 hrs)<br>OCTH495 Neurological Foundations of Human Occupation (3 hrs)

## School of Nursing

> Campus Address: 311 Marshall Telephone: 734.487 .2310
> Internet: www.emich.edu/nursing
> E-mail: barbara.scheffer@emich.edu

See page 227 for course descriptions.

## MASTER OF SCIENCE in Nursing (NUR)

This program provides a curriculum that focuses on the needs of the community for health care and for nurses with advanced practice knowledge and skills. It prepares graduates for clinical practice in adult health nursing and for roles as clinical managers and educators in such health care setting as hospitals, community agencies, clinics, home health care agencies and community colleges.

## Admission Requirements

Applicants must:

1. Meet the EMU Graduate School's admission requirements;
2. Have a nationally-accredited baccalaureate in nursing or RN with other bachelor's degree;
3. Have an undergraduate GPA of 3.0 or above (Applicants may seek conditional admission with a GPA of 2.5);
4. Submit a sample of your writing (five pages suggested). Sample could be a published article; term paper, or new composition;
5. Be currently licensed to practice as a professional nurse in Michigan or eligible to obtain a license;
6. Submit three references that document professional competence in nursing;
7. Include a one- to three-page narrative statement of personal goals for graduate study;
8. Have completed an approved basic statistics course that includes descriptive and inferential statistics; and
9. Have completed a basic health assessment course.

## Program Requirements

The program consists of 40 to 43 hours, depending on the election of a thesis or a field study as the major research paper, including:

12 hours of core courses
Nine hours of the clinical major in adult health
Nine hours related to management role or teaching role in health care systems
Seven to nine hours related to scholarly inquiry
Three to four hours of elective courses
Nursing core courses consist of four three-hour courses in advanced pathophysiology, advanced health assessment, nursing theory for practice and research, and in health care trends and delivery systems. The clinical major consists of three three-hour courses in adult health nursing, each with a clinical practice component including a preceptored practicum that requires 135 clinical contact hours.

One advanced functional-role component consists of three three-hour courses related to clinical systems management, including a practicum requiring 135 clinical contact hours. The objectives and clinical time frames of the practicum are formulated jointly by the student, the academic faculty, and the clinical preceptor directing the practicum.

A second alternate functional-role component consists of teaching in health care systems. Three courses, each consisting of three hours, relate to teaching students, clients or nurses in a clinical setting. The final course includes a practicum with 135 contact hours in an educational setting.

The seven to nine hours of scholarly inquiry consist of one three-hour course in research design and methods and one two-hour seminar on proposal development. Students have the option of a two-hour field study project or four hours of thesis work. Students select appropriate faculty members for the field study project or thesis direction, based on faculty expertise and the particular problems selected for study.

Students must complete a minimum of three to four hours of electives in nursing (for example, if the teaching role function is chosen, management role function courses may be elected and vice versa) or in other departments (physiology, psychology, sociology, gerontology, education or business management) depending on career direction.

## Course Requirements

The M.S. program in nursing requires the completion of 40 to 43 hours of course work to be distributed among required core courses, clinical major in adult health courses, function role courses, scholarly inquiry courses and cognate courses, as follows:
Core Courses

$\qquad$
12 hoursNURS500 Advanced Pathophysiology (3 hrs)NURS502 Advanced Health Assessment (3 hrs)NURS506 Nursing Theory for Practice and Research (3 hrs)NURS605 Health Status Trends and Health Care DeliverySystems (3 hrs)
Clinical Major in Adult Heath Courses. ..... 9 hours
NURS650 Advanced Adult Health Nursing I (3 hrs)
NURS660 Advanced Adult Health Nursing II (3 hrs)
NURS665 Practicum in Adult Health Nursing (3 hrs)
Function Role Courses ..... 9 hours
Select from either option I or option II:
Option I: Management role
NURS607 Evolving Roles of Nurses in Health Care Delivery Systems (3 hrs)
NURS609 Trends in Nursing Management (3 hrs) NURS675 Practicum in Systems Management (3 hrs)
Option II: Teaching role in health care systems ..... NURS620 Teaching in Health Care Systems: Instruc- tional Strategies and Skills (3 hrs) NURS622 Teaching in Health Care Systems: Curriculum/ Program Development and Evaluation (3 hrs) NURS624 Practicum in Teaching in Health Care Systems
(3 hrs)

Scholarly Inquiry
NURS610 Research Design, Methods and Analysis (3 hrs)
NURS614 Seminar: Proposal Development (2 hrs)
Select from either option I or option II:
Option I: NURS688 Field Study (2 hrs)
Option II: NURS693 Thesis (4 hrs)
Cognate Courses....................................................................3-4 hours
Three to four hours selected in consultation with a graduate adviser.
Program Total . 40-43 hours

## GRADUATE CERTIFICATE in Teaching in Health Care Systems (HCS)

The graduate certificate program in teaching in health care systems is 12 hours. It is intended for students who have a bachelor's degree in nursing, allied health or related disciplines from an accredited institution of higher education and have an interest in specialized study in teaching and learning in health care systems. The certificate will not require the student to enroll in a graduate degree program. The certificate may be used as the role-function requirement in the M.S.N. program, should the student elect to pursue the master's program. The courses in the certificate program could, with approval, be used as a cognate in other graduate programs in the College of Health and Human Services.

This program prepares students as educators in health care systems. The focus is on education of client/family groups, staff development, continuing education and teaching positions in nursing education. The program focuses on the educator role and the theory and practice of teaching and learning. Course work examines theories, strategies and research related to the teaching/learning process in health care systems, curriculum patterns for various learners, legal/ethical considerations in teaching and the trends in both education and health care that affect educational planning and evaluation. In the practicum, the student is given an opportunity to synthesize previous learning and function in an educator role under the mentorship of select expert preceptors.

## Admission Requirements

## Applicants must:

1. Have a baccalaureate from an accredited institution with a minimum 2.5 GPA or 2.75 in the last 30 hours of the undergraduate program; and
2. Meet the EMU graduate school admission requirements.

## Certificate Requirements

The certificate requires 12 hours of course work to be distributed as follows:
NURS605 Health Status Trends and Health Care Delivery Systems (3 hrs)
NURS620 Teaching in Health Care Systems: Instructional Strategies and Skills ( 3 hrs )
NURS622 Teaching in Health Care Systems: Curriculum/Program Development and Evaluation (3 hrs)
NURS624 Practicum in Teaching in Health Care Systems (3 hrs)
Certificate Total....................................................................... 12 hours

## ADVANCED GRADUATE CERTIFICATE in Post-Master's Adult Nurse Practitioner (ANP)

This program is intended for students who possess a master's degree in nursing and wish to broaden their practice to include the role of the adult nurse practitioner. The program prepares students for the process of diagnosing, prescribing and treating adult clients in a primary care setting, as well as qualifies them to take a national certification examination specifically for the role of adult nurse practitioner.

The program consists of 22 hours including a course in applied pharmacology for primary care practitioners (NURS809, an internet course taught by Michigan State University College of Nursing), and three clinical courses which include didactic content and a total of 540 clock hours of preceptored practice. Students must earn a minimum cumulative GPA of 3.0 (B) to obtain the certificate.

## Admission Requirements

1. A master's degree in nursing from a nationally-accredited institution of higher learning with a minimum cumulative GPA of 3.0
2. License to practice nursing in the state in which the clinical practice is planned.
3. Completion of a graduate level advanced health assessment course within the past five years.
4. Completion of a graduate level pathophysiology course within the past five years.

## Certificate Requirements

The certificate requires 22 hours of course work to be distributed as follows:

NURS700 Adult Nurse Practitioner I: History, Role, Leadership, Trends (2 hrs)
NURS702 Adult Nurse Practitioner II: Primary Care Nursing in Health Promotion and Acute Illness (8 hrs)
NURS704 Adult Nurse Practitioner III: Primary Care Nursing in Chronic Illness (9 hrs)
NURS809 Applied Pharmacology for Primary Care Practitioners (3 hrs)

Program Total
22 hours

# School of Social Work 

Campus Address: 317 Marshall Telephone: 734.487.0393<br>Internet: www.emich.edu/chhs/socialwork<br>E-mail: msw.program@emich.edu

See pages 206 and 247 for course descriptions.

## MASTER OF SOCIAL WORK

The master of social work (M.S.W.) prepares graduates for advanced social work practice with poor families, neglected and abused children, persons with mental illness and/or chemical dependency, and the aged. The program equips graduates for working at both practice and leadership levels with individuals, families, groups and communities.


#### Abstract

The program accommodates human service providers who cannot attend graduate school full time by offering course work in the evenings and on Saturdays, opportunities for part-time study and worksite field placements.

For the convenience of our students, the program is offered in Detroit at the Northwest Activity Center and the Ypsilanti campus. The Detroit program is offered only in the concentration specializing in families and children and students are admitted by cohort.


Detroit Activities Northwest Center
18100 Meyers Rd.
Detroit, Mich.
Telephone: 313.342.2731
The M.S.W. program is fully accredited by the Council on Social Work Education.

## Admission Requirements

To be considered for admission to the M.S.W. program, you must have earned a bachelor's degree from an accredited institution prior to enrollment:

1. Have a 2.75 GPA (this requirement is higher than the minimum required by the Graduate School);
2. Demonstrate commitment to our mission; and
3. Have work and/or volunteer experience in social work or related fields.

If English is not your native language, submit documentation of English proficiency by:

- achieving a score of at least 550 on the Test of English as a Foreign Language (TOEFL) or 213 on the computer version and a 5 on the Test of Written English (TWE) or
- achieving a score of at least 80 on the Michigan English Language Assessment Battery (MELAB), plus 83 on the written essay.

Official scores may be sent by the testing agency directly to the University.

## Course Requirements

The length of time required to complete the M.S.W. depends upon undergraduate preparation. If you have a bachelor of social work degree (B.S.W.) from an undergraduate program accredited by the Council of Social Work Education (CSWE), you will be considered for advanced standing admission, which requires 35 credits for completion of the M.S.W. degree. If you are submitted on an advanced standing basis, your course work will begin in the summer semester immediately following admission (late June through August). If your application is not approved for advanced standing admission, it will be reviewed for full program admission.

Students admitted to the full program begin classes in the fall semester and must complete 63 credit hours for the M.S. W. degree. Students who have a B.S.W. and are admitted to the full program may be eligible for exemption of up to nine credit hours for selected required entry-level course work based on prior undergraduate course work. Undergraduate credit must be no more than 10 years old at the time you plan to graduate from the M.S.W. program. Exempted course work must be replaced with elective credit hours so that you would complete the 63 hours required for the program.

## Full Program

For those with a non-social work bachelor's degree, the program can be completed in two full-time (or four part-time) years with 63 hours of foundation and advanced-level courses. Students complete the M.S.W. on a part-time basis, but may petition to attend full-time.

## Field Placement

All M.S.W. students must complete field placements that are authorized and arranged with affiliated public and non-profit social service agencies through the field placement office. Foundation Field Placement (SWRK588, SWRK589A and SWRK589B) requires 400 hours of supervised field work. These are generalist placements. Advanced Field Placement (SWRK688 and SWRK689) require 500 hours of supervised field work in their chosen concentration. M.S.W. students admitted to the full program must complete both placements. Students admitted to the advanced standing program
complete only the advanced level placements. In accordance with our national accreditation standards, no credit can be given for past or present work experience.
Foundation Level Courses ....................................................... 31 hours
SWRK502 Social Work Profession and Services (3 hrs)
SWRK506 Human Behavior and the Social Environment I:
Individuals and Families (2 hrs)
SWRK507 Human Behavior and the Social Environment II:
Groups, Organizations and Communities (2 hrs)
SWRK510 Communication Skills for Professional Practice (3 hrs)
SWRK520 Generalist Social Work Practice (3 hrs)
SWRK521 Policy Analysis and Change (3 hrs)
SWRK526 People of Color: The Non-deficit Perspective (2 hrs)
SWRK528 Practice with Women (2 hrs)
SWRK530 Social Work Research Methodology (3 hrs)
SWRK588/589 Field Professional Experience I/II (8 hrs)

Advanced Level Courses
.22 hours
SWRK610 Empowerment: Social Justice and Social Change (2 hrs)
SWRK630 Action Research (3 hrs)
SWRK688/689 Field Experience III/IV (8 hrs)
Select one of the following three concentrations:
I. Family and Children's Services (SWFS)

SWRK540 Policies and Issues in Services to Families (3 hrs)
SWRK542 Family-Centered Practice (3 hrs)
SWRK643 Families in the Social Environment (3 hrs)
II. Mental Health and Chemical Dependency (SWMH)

SWRK650 Policy Issues in the Health Care Setting (3 hrs)
SWRK652 Dynamics and Practice: Mental Illness Services (3 hrs)
SWRK653 Dynamics and Practice: Chemical Dependency Services (3 hrs)
III. Services to the Aging (SWAG)

SWRK550 Working with Aging People (3 hrs)
SWRK552 Policy Issues and Older People ( 3 hrs )
GERT512 Applied Psychosocial Aspects of Aging (3 hrs)
Elective Courses.
.10 hours
Ten hours selected in consultation with a graduate adviser.
Program Total
.63 hours

## Advanced Standing

The length of time required to complete the M.S.W. depends upon undergraduate preparation. Those students with a B.S.W. from a program accredited by the Council on Social Work Education can complete the M.S.W. program in approximately one year of full-time work or two years of part-time work on an advanced-standing basis ( 35 hours). Students complete the M.S.W. on a part-time basis, but may petition to attend full time, if they are not employed full time.

[^20]
## III. Services to the Aging

SWRK550 Working with Aging People (3 hrs)
SWRK552 Policy Issues and Older People (3 hrs)
GERT512 Applied Psychosocial Aspects of Aging (3 hrs)
Elective Courses
11 hours
Eleven hours selected in consultation with......................................................
Program Total
35 hours

## GRADUATE CERTIFICATE in Community Building (CBLD)

See page 35 for Interdisciplinary studies listings.

## GRADUATE CERTIFICATE in Gerontology (GERT)

## Program Advising

The gerontology program is administered by the Department of Social Work through a coordinating committee of faculty from approximately 12 departments and programs throughout the campus. The 18-hour multidisciplinary graduate certificate is for students with a bachelor's degree from an accredited institution of higher education, wishing to pursue specialized study in aging, short of a master's degree. It is targeted to those working in the field of aging, seeking formal education in gerontology; persons considering a career change; and students wishing to learn about the aging process to enhance their own aging experience.

Although the certificate in gerontology does not require enrollment in a graduate degree program, it may be used as a cognate or concentration in other graduate programs, including social work, clinical behavioral psychology, women's studies, dietetics, public administration, occupational therapy, leadership and counseling, sociology, the master of liberal studies in technology, the master's degree in individualized studies, and other master's programs.

Most courses are offered in the evenings or on weekends. The program must be completed within three years. It is possible, however, to complete all requirements within one year.

## Admission Requirements

Applicants must:

1. Have a baccalaureate from an accredited institution, with a minimum 2.5 GPA;
2. Be accepted into the Graduate School;
3. Submit a 250 -word description of their academic and professional history and their professional goals in gerontology; and
4. Have an interview with the gerontology program director. Students must be admitted to the graduate certificate program before enrolling in required course work.

## Certificate Requirements

The graduate certificate in gerontology is awarded upon satisfactory completion of 18 hours. This includes four required courses, three or more electives and a practicum. Students are also required to complete a 120 -hour internship and enroll into a practicum seminar. The minimum acceptable grade in each required course is 3.0 (B). Students scoring less than a B may repeat the course once before being dismissed from the program.

[^21]Elective Courses.5-6 hours
Five to six hours from the following:
*GERT417 Work and Retirement (2 hrs)
GERT509 Older Adults and Chemical Dependency ( 1 hr )
GERT511 Elders and Their Families (2 hrs)
GERT513 Intergenerational Programs and Services (2 hrs)
GERT514 Caregiving and the Elderly (2 hrs)
GERT515 Sexuality and Aging (1 hr)
GERT516 The Elderly and the Law ( 1 hr )GERT517 Developing Proposals for Aging Programs (2 hrs)
GERT518 Innovations in Alzheimer's Care (2 hrs)
GERT523 Designing Programs for People with Dementia (2 hrs)
GERT524 Families and Dementia (2 hrs)
GERT528 Advanced Issues in Dementia Care (2 hrs)
GERT530 Assessment of Persons with Dementia (2 hrs)
GERT532 Aging Through the Eyes of the Old (2 hrs)
GERT590/591/592 Special Topics ( $1 / 2 / 3 \mathrm{hrs}$ )
GERT697/698/699 Independent Study ( $1 / 2 / 3 \mathrm{hrs}$ )
COUN573 Counseling Older Persons ( 2 hrs )
SWRK550 Working with Aging People (3 hrs)
PSY551 Psychology of Death and Dying (2 hrs)
IDE503 Physical Environments for Aging (2 hrs)
OCTH619 Programming III (6 hrs)
DTC658 Nutrition and Aging (3 hrs)
Additional applicable courses may be used in the elective area, with
prior approval of the director of the program.

## Certificate Total

 18 hoursNote:
*Students may take one approved 400-level course toward the certificate if it is taken for graduate credit. (Web site: www.emich.edu/gerontology)

## GRADUATE CERTIFICATE in Gerontology Specializing in Dementia (GRNC)

The graduate certificate in gerontology specializing in dementia is a state-of-the-art program designed to accommodate the practical needs of a number of professional groups including nurses, social workers, psychologists, occupational and speech therapists, health care administrators, and music and recreational therapists. It is also intended for graduate-level students who are interested in learning more about clinical and leadership issues in Alzheimer's care and related illnesses. In order to provide greater flexibility for our students most of the classes are scheduled on Fridays and Saturdays from 9 a.m. to 4 p.m. with approximately four class meetings per semester.

This 18-hour multidisciplinary graduate certificate provides a theoretical framework and practical grounding in working with families and persons with dementia in the home, community-based programs and 24 -hour care settings. The program focuses on the social psychology of dementia; how a person changes, communicates and compensates throughout the stages of dementia, and how we as caregivers can accommodate these changes. Major themes of this program center around ongoing assessment of the person and his/her environment and the development of supportive interventions. Students learn about the value of and how to develop meaningful trusting relationship with persons with dementia. Emphasis is on the process of sharing an experience together rather than focusing on the completion of tasks. In addition, students will explore the experiences of families from diverse racial, cultural and socioeconomic backgrounds, and interventions for supporting them.

Students will be encouraged through a series of carefully structured exercises to explore their own biases and feelings about aging and dementia. Throughout the program students will have the opportunity to hear firsthand stories about coping with dementia from individuals recently diagnosed with early-stage dementia and their caregivers.

In addition, students will be challenged to advocate for a new and more humane approach to dementia care. The characteristics of what makes an effective dementia-care leader, the importance of defining a vision and strategies
for recruiting, retaining, training and empowering staff will be examined in depth. Creating successful organizational change and documenting outcomes is also a major theme of this program.

## Fieldwork Opportunities

A unique feature of this program is the field work experiences that have been integrated into most courses. Assignments are customized, enabling students from different disciplines to complete projects in their own work settings. The Alzheimer's Education Program team makes on-site visits, when feasible, to see students' work in progress and to offer concrete feedback and mentoring. The instructional team is committed to individualizing projects so that students can explore challenging issues in more depth in their own work settings. This hands-on approach to learning enables students to refine their clinical and leadership skills and to become more effective clinicians/administrators.

The Alzheimer's Education Program has affiliations with several local clinical programs including Huron Woods, a residential dementia care program located on the campus of St. Joseph Mercy Hospital, the Alzheimer's Association, and The Silver Club, an adult day program designed specifically for persons with dementia.

## Scholarships Opportunities

Several scholarships - the Edna Gates Scholarship in Dementia Care, the Mary Schroder Scholarship and the Sarah Graf Scholarship - are available to students enrolled in the Certificate Specializing in Dementia. Application is made by contacting the certificate coordinator, 734.487.8579. Awards are generally granted for the fall term.

## Admission Requirements

Applicants must:

1. Have a baccalaureate from an accredited institution, with a minimum 2.5 GPA or 3.0 in the last half of the undergraduate program:
2. Be accepted by the Graduate School:
3. Submit a one-page personal statement describing their professional history and goals in dementia care; and
4. Have an interview with the certificate coordinator.

A student does not have to be enrolled in a graduate degree program. Please note that credit earned for the graduate certificate may count, subject to applicability, toward a graduate degree.

## Certificate Requirements

The graduate certificate in gerontology specializing in dementia is awarded upon satisfactory completion of 18 hours. This includes four required core courses and four to six required elective courses. Students are also required to complete a 120 -hour internship and enroll in a practicum seminar.

The minimum acceptable grade in each required course is a B (3.0). Students scoring less than a B may repeat the course once before being dismissed from the program.

```
Required Courses................................................................. }9\mathrm{ hours
    GERT512 Applied Psychosocial Aspects of Aging (3 hrs)
    GERT518 Innovations in Alzheimer's Care (2 hrs)
    GERT528 Advanced Issues in Dementia Care (2 hrs)
    SWRK553 Ethnicity and Gender Issues Among the Aged (2 hrs)
Elective Courses...................................................................... }6\mathrm{ hours
    Six hours from the following:
        GERT523 Designing Programs for People with Dementia (2 hrs)
        GERT524 Families and Dementia (2 hrs)
        GERT590/591/592 Special Topics (1/2/3 hrs)
        GERT697/698/699 Independent Study (1/2/3 hrs)
```

```
Gerontology Practicum ......................................................2-3 hours
    One course from the following:
        GERT688 Gerontology Practicum (2 hrs)
        GERT689 Gerontology Practicum (3 hrs)
```

    Certificate Total................................................................ 17-18 hours
    
# GRADUATE CERTIFICATE in Nonprofit Management (NPMG) 

See page 35 for Interdisciplinary studies listings.

## Undergraduate Courses for Graduate Credit

These upper-division undergraduate courses may also be taken for graduate credit and applied on the department's certificate or degree programs. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree. See the undergraduate catalog for course descriptions.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

GERT417 Work and Retirement (2 hrs)
GERT488/489 Gerontology Practicum (2/3 hrs)
SWRK413 Women and Aging (3 hrs)
SWRK420 Working with Aging People (3 hrs)
SWRK431 Substance Abuse (3 hrs)
SWRK435 Group Work with Children and Families (3 hrs)
SWRK460 The Law and Social Work with the Family (3 hrs)
SWRK463 Social Work Practice with Legal Offenders (3 hrs)

## School of Social Work

The EMU School of Social Work offers a sequence of three courses that have been approved by the state of Michigan in order to become a school social worker. Consultation should be made with a social work graduate adviser about this opportunity.

## COLLEGE OF TECHNOLOGY

Dean:<br>John C. Dugger<br>150 Sill Hall<br>734.487.0354

Associate Dean:
Konnie G. Kustron
150 Sill Hall
734.487.0354

Administrative Associate:
Nancy Harris
150 Sill Hall
734.487.0354

Schools and Departments

- Technology Doctoral Program
- Engineering Technology
- Technology Studies
- Military Science and Leadership


## Mission Statement

The College of Technology offers a doctor of philosophy in technology, 10 master's degree programs with multiple concentrations and options, and three graduate certificates. Our students draw from a wide spectrum of curricula that feature both specialization and flexibility. Due to the ever-increasing numbers of non-traditional students pursuing graduate degrees in our programs, off-campus education and corporate sites, as well as personal instruction and distance-learning technologies, are prevalent in the College of Technology.

Graduate students in the School of Engineering Technology (SET) may pursue graduate certificates, or the master of science (M.S.) in construction management, CAE, engineering management, interior design, polymer technology or quality. Graduates of the construction management program are prepared for managing commercial and industrial projects. Emphasis in engineering management is directed toward those working or planning to work in manufacturing, while CAE is oriented toward designers or engineering designers. Graduates in the interior design program investigate the interactions of humans and the environment through the integration of theory, knowledge and technical skills. Graduate certification is available as an advanced graduate certificate in quality or in quality technology. Students in both manufacturing and service sectors would choose the degree option. Also within SET, the master of science in polymer technology attracts chemists wishing to study and conduct research in coatings or to work in the manufacture of coatings. The Coatings Research Institute and the National Science Foundation Industry/University Cooperative Research Center in Coatings provide industry-sponsored research activities for graduate courses.

In the School of Technology Studies (STS), the master of science in career, technical and workforce education is designed for teachers in educational institutions, business and industrial settings, government agencies and other organizations. The master of science (M.S.) degrees in apparel, textiles, and merchandising and hotel and restaurant management are designed to provide a broad philosophy of the fields, with in-depth concentration in the subject-matter content areas. The master of liberal studies (M.L.S.) in technology is an interdisciplinary degree that focuses on the technical and sociocultural aspects of technology past, present and future. It is a flexible degree for working adults with a core set of courses and an opportunity to select up to three areas of content concentrations. STS also offers a graduate certificate in information security that provides professionals with skills necessary to participate in a team-based information security or protection program.

While not a graduate degree program, the Department of Military Science and Leadership does, however, offer eligible graduate students a curriculum that permits entry into the active Army, Army National Guard, or Army Reserves as commissioned officers. The Department of Military Science and Leadership prepares leaders of character who serve the common defense; are analytical, responsible and accountable; have a sense of community; act with physical and moral courage; and set priorities.

As with our undergraduate programs, the College of Technology emphasizes relevant, real-life, hands-on learning activities, a solid interdisciplinary foundation, close relationships with business and industry, teamwork and individual professional competence. Students are encouraged to be tomorrow's leaders by refining the knowledge and skills necessary to understand, adapt to, and influence change. The College of Technology's mission is to cultivate a learning community dedicated to learning, research and public engagement, and committed to excellence in technology programs.

## Graduate Degrees and Certificate Programs

The college offers the following graduate degrees and certificate programs in the various disciplines of technology. Admission and degree requirements for each of the programs can be found in the departmental sections of this catalog.

## College of Technology

DOCTOR OF PHILOSOPHY in Technology

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School of Engineering Technology
    MASTER OF SCIENCE in Construction Management
    MASTER OF SCIENCE in CAE
    MASTER OF SCIENCE in Engineering Management
    MASTER OF SCIENCE in Interior Design
    MASTER OF SCIENCE in Polymers and Coatings Technology
    MASTER OF SCIENCE in Quality
    GRADUATE CERTIFICATE in Quality
    ADVANCED GRADUATE CERTIFICATE in Quality
School of Technology Studies
    MASTER OF SCIENCE in Apparel, Textiles and Merchandising
    MASTER OF SCIENCE in Career, Technical and Workforce Education
    MASTER OF SCIENCE in Hotel and Restaurant Management
    MASTER OF LIBERAL STUDIES in Technology
    GRADUATE CERTIFICATE in Information Security
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The College of Technology also has four centers and institutes that interface with business, industry, and governmental agencies to provide applied research and continuing education. These Centers and Institutes are:

## The Center for Product Research and Development

The Center for Product Research and Development (CPRD) is dedicated to helping manufacturing and construction businesses grow. The CPRD assists innovators to develop concepts into products. The professional services, prototyping, manufacturing facilities and entrepreneurial ideas can add to success in the highly competitive marketplace.

The mission of CPRD is to provide a vital link between University activities and manufacturing and construction industries through applied research and education.

Through collaboration with the Michigan Small Business Development Center, the Center for Product Research and Development can assist companies and inventors in the development of a product as well as the assistance to establish a business and bring the product to market.

The CPRD's goals are to serve the workforce, product, innovators and manufacturing and construction industries.

## The Center for Regional and National Security

The mission of the Center for Regional and National Security is to support citizenship security through excellence and innovation in teaching and research. The center was founded in 2003 with three service components, Information Assurance, Law Enforcement/School Safety and Homeland Security. While traditionally we have served the law enforcement and fire communities we have initiated new initiatives directed as business and industry.

Information Assurance combines the very successful graduate program in information security, computer forensics and cyber crime investigation. These concentrations combine a cohesive unit where individuals can study and research the problems of our country in areas of information warfare, cyber security, digital analysis and the emerging science of computer forensics. Business continuity is critical for today's ecommerce and sustainability.

Law Enforcement \& School Safety unites the very successful School of Police Staff and Command, which has been delivered across the state to more than 1,500 law enforcement executive officers. The School of First Line Supervision addresses issues of leadership and communications for the first line supervisor. The component School Safety builds upon successes in Intervention Strategies for School Violence and the Team 8 Consortium where eight communities formed a coalition to address the gang violence, substance abuse and juvenile crime.
Homeland Security integrates the School of Fire Staff and Command with programs in incident command, first response to terrorist bombing, GIS, weapons of mass destruction, emergency management and hazardous materials. Joining this platform is the Applied Health Care concentration in Biological Terrorism.
The Center for Regional and National Security is dedicated to providing solutions to some of the tough problems facing our nation in the information security, law enforcement, fire management, and our regional and national response to homeland security.

## The Coatings Research Institute (CRI)

The CRI's two-fold mission is to be a leading academic organization that develops relevant scientific knowledge for understanding and for expanding the science and technology of paints, coatings, inks, adhesives and related nano-based materials. Consequences of the mission statement will be to enlarge the pool of scientists and technologists proficient in coatings and allied industry personnel. Our research activities, our support of undergraduate, graduate and post-doctoral candidate students, and our collaborations with government, industry and other educational institutions are consistent with the mission of the College of Technology and the mission of the University.

CRI is dedicated to providing solutions to some of the tough problems facing the coatings industry such as reducing VOCs in paint and coatings. The institute's goals include the following:

- Synthesize new types of polymers and emulsions of potential value to coatings research,
- Improve and advance polymer and coatings characterization, analysis and test methods,
- Expand the knowledge base of coatings and technology through research on chemical and physical phenomena involved in paints and coatings,
- Provide an increased pool of well-trained coatings professionals to the coatings industry and provide continuing education opportunities to coatings industry personnel through relevant polymer and coatings technology short courses.


## The Textile Research and Training Institute

The Textiles Research and Training Institute (TRTI) mission is to be a leading research and academic organization that provides relevant and creative research in the area of "applied textiles" that match across multi-disciplines and industries. The TRTI will provide a variety of educational training programs for industries that use textiles for various applications.

## Laboratories

Our computer labs are housed in Roosevelt Hall on the main campus of Eastern Michigan University in Ypsilanti, Mich. All software is state-of-the-art and currently being utilized in the active furniture and apparel industries.

Software includes: 2-D pattern design software, pattern grading, marking and nesting systems for optimal fabric utilization, CNC industrial cutter, CutWorks Software, product data management software for costing and manufacturing specialty sheets, merchandising and CAD package.

The Dyeing and Weaving Lab is located in Sherzer Hall on the main campus of Eastern Michigan University. The lab includes:

- Looms, dyeing and finishing, physical testing laboratory, tensile testing of yarns and fabrics, abrasion test, wrinkle recovery, fabric flammability, color fastness to crocking, and near infrared analysis.


## Typical Research and Training Projects

Some of our recent projects include the following:

- Anti-bacterial/protective fabrics, "Smart Fabric" involving sensors within the fabric
- Environmentally friendly polymer textiles "Green Textiles"
- Protective garments for security purposes i.e. bullet-proof vests, contract digitizing
- 2-D digitizing via the Gerber AcuuMark system for over work or pattern development
- Industrial cutting services, high speed, single-ply cutting on a DCS2500 Cutter with CutWorks software
- Pattern development, prototyping services, training on Gerber platform software are also offered.


# DOCTOR OF PHILOSOPHY in Technology (PHD-TC) 

Eastern Michigan University's Doctor of Philosophy in Technology program is intended to provide students with an advanced program of study with a strong focus on the research aspects of technology related fields. Course content is interdisciplinary. This program prepares graduates for positions of increased responsibility in a variety of settings, such as policy analysis and research occupations, high-level management positions in industry and government, and faculty careers in higher education. The five general areas of specialization include: quality and engineering management, society and technology, polymers and coatings, technology and education, and information technology and assurance.

## Admission Requirements

Admission to the program is based on the following criteria:

1. Academic ability as measured by verbal, quantitative and written scores on the GRE. In keeping with other Ph.D. programs in the state and with national criteria, admission requires a minimum of 1000 on the verbal and quantitative sections combined. However, successful applicants may present much higher scores, particularly in the quantitative portion of the exam.
2. Achievement in undergraduate or graduate work, in a field relevant to technology. Admission requires a recommended minimum of a 3.0 on a 4.0 scale undergraduate GPA. Successful applications will usually have been awarded a master's degree in a related field.
3. Academic background in a technology area. Applicants must have completed a minimum of 30 semester hours in a technology area including a course in statistics. A master's degree in a related field may be used to satisfy this requirement. See below for details on admission options.
4. Fit between applicant and faculty scholarly activity. A personal statement is requested describing the applicant's professional and academic goals. We will be particularly interested in students who have academic interests similar to those of our faculty.
5. Personal qualities that predict success in graduate study and in professional placement after graduation. To evaluate these, each applicant must submit three letters of recommendation and complete a personal interview after an initial screening. Only applicants meeting the requirements outlined in the first three requirements will be invited for an interview.

## Admission Procedures

The following materials should be submitted to the EMU Office of Admissions:

1. Graduate Admission Application form, application fee and current résumé.
2. Official or true attested college transcripts of all undergraduate and graduate classes.
3. Official written, verbal, and quantitative GRE scores. (Students who have taken the GRE prior to October 1, 2002 will be required to take the GRE writing test and submit those scores also.)
4. If applicable, submit evidence of English language proficiency as demonstrated by official test scored on the TOEFL, TWE or MELAB to the Office of Admissions.
5. Three letters of recommendation from professors and/or work supervisors who can assess the ability of the applicant to successfully complete research and academic requirements of a doctoral program.
6. Autobiographical statement on personal goals focusing on the intent and reasons for pursuing the Ph.D. in Technology.
7. Current resume. Preference given to applicants with documented work experience related to educational goals.

## Admission Process

1. Application materials must be received by January 15 for the following fall semester. All materials must be received by January 15 so that they may be reviewed by the Ph.D. Admissions Committee.
2. Selected applicants will be invited to interview with the program faculty, and asked to provide a writing sample or original research noting the extent of the author's contribution and the extent to which the item has been professionally edited.
3. Following personal interviews, those candidates who have presented the greatest evidence of potential for success in the program will be selected and notified of their admission by the program director.
4. Decisions for financial aid, usually in the form of a fellowship or graduate assistantship will be made at the time of admission

All admission materials must be received by January 15. Decisions are based on the College of Technology Ph.D. Admission Committee's recommendation on an applicant's probability of success on completing all degree requirements. Specific requirements may be waived on an individual basis and exceptions granted based on the overall strength of the application materials. All decisions by the Ph.D. Admission Committee regarding admissions are final. However, a student may reapply the following year or later.

Students may be admitted to the program utilizing one of two admission categories. Option A provides for full admission and is granted to students who hold a master's degree (or equivalent credits). Option B provides for conditional admission where the student has either a bachelor's degree only or graduate credits with a master's degree. Preference will be given to students holding a master's degree.

## Option A: Master's degree (full admission)

Students must meet one of the following requirements:

1. Master's degree from any EMU College of Technology program; or
2. Master's degree program with an EMU-COT equivalent; or
3. Master's degree from any regionally accredited institution. However, one of the applicant's degrees (bachelor's or master's) must be in a technology related area. In this event, the applicant must demonstrate the equivalent knowledge and understanding as it relates to the mission of the college. To meet this requirement, a student may have to take either undergraduate or graduate coursework as a part of their planned program as deficiency credits in their program of study.

Option B: Bachelor's degree only or graduate credits that meet one of the following requirements: (conditional admission)

1. Undergraduate degree in a technology field from a regionally accredited institution
2. Undergraduate degree and graduate credits from any College of Technology master's degree program from a regionally accredited institution; or
3. Undergraduate degree and graduate credits from any master's degree program with an EMU-COT equivalent; or
4. Undergraduate degree and graduate credits from any master's degree program from a regionally accredited institution or with graduate credits in any field. However, the applicant must demonstrate the equivalent knowledge and understanding of technology as it relates to the mission of the college. To meet this requirement, a student may have to take either undergraduate or graduate additional course work as a part of their planned program as deficiency credits.

A review will be done for students who have less than a master's degree once they complete 30 graduate credits in their planned program and meet all the requirements necessary to be awarded a College of Technology master's degree.

Eastern Michigan University and the College of Technology reserve the right to change any statement in this program concerning, but not limited to, rules, policies, tuition, fees, curricula and courses at any time.

## Program Requirements

The doctoral program requires the completion of a minimum of 59 graduate credit hours of study, post-master's degree completion. Its 59 credit component parts are:

1. Technology core courses that provide a common knowledge base for all students;
2. Technical specialization courses that promote technology literacy in the area of the student's doctoral research;
3. Cognate courses shaped around individual interests;
4. Research skills learning in the classroom and from faculty;
5. Scholarly research study, original work as performed by the student; and
6. Dissertation

## Graduate Assistantships

Students may be eligible for a graduate assistantship while they are enrolled in the program full-time, where full-time is defined as enrolled in a minimum of 8 credits. If awarded, a student will be assigned to a faculty member in his or her area of research interest. He or she will spend 15 to 20 hours per week with their faculty adviser, assisting with research and teaching activities. Graduate assistants may be asked to assist with class preparations, as well as assist in data collection, preparation and analysis. Faculty members will serve as mentors to their students, training and guiding them in developing their own research plans for dissertation work. Students may request specific faculty persons as mentors, and may request a change in mentor as they matriculate through the program. Every effort will be made to accommodate student requests within reason. Graduate assistantships include tuition waiver and stipend.

## Graduate/Doctoral Fellowships

Graduate/doctoral fellowships will be available to highly qualified students who have full admission to the doctoral program. The graduate fellowship is a distinction of honor awarded to selected graduate students based on academic merit. Fellowships are available for full-time students, and both new and continuing doctoral students are eligible to apply for a fellowship. Fellows must enroll in and complete at least eight hours of graduate-level course work in each of the terms of the award.

Fellows must have a minimum 3.6 cumulative master's-level GPA to receive consideration. Doctoral students who have already begun their programs must have a minimum 3.6 cumulative doctoral GPA to receive consideration for fellowships.

Doctoral Fellows may be asked to perform some of the following responsibilities:

- Provide research assistance to faculty;
- Participate in research, sponsored or unsponsored, at the level of a research investigator;
- Teach one section of a College of Technology undergraduate course in an area in which they are qualified;
- Assist in the maintenance of the college and/or a department or program's Web site(s);
- Assist in the development and operation of seminars and symposia for the college;
- Perform tasks and duties normally associated with the honor of a fellowship.
The stipends and related benefits will be in accordance with those currently in effect for graduate assistants and doctoral fellows.


## Examinations

The College of Technology doctoral program requires students to demonstrate their competence in the general area of technology as well as one specific area that relates to their thesis research. This competency will be demonstrated by two required examinations. The first exam (Qualifying), a written exam, is to be taken at the end of the first full year of study. The second (candidacy), mainly oral but with a written component, is to be taken at the end of the second full year of study. Both exams must be taken by the end of the third year of admission into the doctoral program.

Qualifying Exams - At the end of the spring term, all students will take a written qualifying exam. The exam will include questions from material in (but not necessarily limited to) COT600, COT610 and COT611. The exam will consist of both essay questions regarding the fundamentals of technology as a field of study as well as quantitative problems.

Candidacy Exams - After the student has completed the majority of the doctoral course work, except for dissertation research, they are required to complete a comprehensive candidacy exam. The purpose of this examination is to determine the student's mastery of the concepts, literature base and research and knowledge of problems and issues in the major field (technology) and their specialization area. The student is expected to provide written evidence of the ability to analyze and synthesize information, integrate learning into a meaningful whole and draw appropriate conclusions. The written portion of the exam will be a short paper presenting a prospectus of their research ideas to a committee of at least four faculty members. Three members should be from COT and familiar with the student's area of study. A fourth member of the committee should be a faculty member outside COT, but someone who is familiar with the student's area of research. The chair of the committee will be a faculty member who is not the student's proposed thesis advisor. The program director will pick the chair of the committee. The outside member will be picked in conjunction with the graduate school. A week to 10 days after the student has given their written prospectus to the committee, the student will give a 20 -minute presentation outlining their plan of research study to the committee members. The remainder of the exam will consist of questions from the committee to determine if the student's idea is viable and to ensure that the student understands the basic research techniques to carry out appropriate doctoral research.

Failure of either of these portions of the exam will cause a student's performance in the program to be reviewed by the examination committee in consultation with the Doctoral Operations Committee. The committee will then recommend that either the student be dismissed from the doctoral program, be permitted to withdraw from the doctoral program or allowed to retake the examination (either partially or totally) after a remediation plan has been developed and implemented. Reexamination may not take place until at least three months have elapsed, but must occur within one calendar year. The results of the second examination are final.

Doctoral Defense - After a student has completed all course work requirements and doctoral research they will present their written dissertation of their research to their doctoral committee. The doctoral committee will consist of at least three members of the College of Technology and at least one representative from outside the college. This representative will be appointed by the Graduate School with or without the input of the student and/or thesis adviser. The student must give the committee a minimum of two weeks to read the final copy of the dissertation. After the committee has read the dissertation, the student will present their work to the committee, faculty and guests. At the end of the presentation, the committee will ask questions of the student to either clarify the research or to ensure that the student understands the background, results, and ramification of the research. At the end of the presentation the committee will ask the audience and the student to leave so that they may deliberate on the results of the defense. They may recommend that the student pass with minimal corrections to the dissertation, with major corrections or in rare cases, ask the student to redo significant portions of the research.
Core Courses

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9 hours

COT600 Introduction to the Interdisciplinary Study of
Technology (3 hrs)

COT605 Technology Design, Development and Transfer (3 hrs)
COT704 Legal and Policy Aspects of New Technologies (3 hrs)

## Technology Specialization

$\qquad$ 15 hours Students are required to take at least 15 credits of graduate credit related to their area of specialization. These courses include 600 level courses in the College of Technology. Specific course requirements are determined in consultation with a College of Technology doctoral adviser or the doctoral program director.

## Cognate Courses.

$\qquad$ .6 hours
This is a planned program of coursework beyond the core and te............................................... nical specialization that contributes to the student's intellectual and professional development. Cognate courses should together constitute a unified experience in particular subject or discipline areas. Specific 600- and 700-level courses are selected in consultation with the doctoral adviser and a committee member who represents the cognate area. A majority of the cognate courses must be taken outside of the College of Technology. Examples of cognate areas are business, statistics, management, information systems, public policy/administration, etc.

## Research Skills

11 hours
Research design and methodology courses provide advanced skills to assist students to prepare for and complete the dissertation. It is expected that incoming students will have a level of statistical competence equivalent to that gained in QUAL647. Research credits earned at the master's degree level may reduce the total number of credits required in a doctoral research sequence. Substitutions of other research courses may be permitted with the approval of the student's advisor and Director of the Ph.D. program.

## COT610 Introductory Research Design and Applied Statistics in Technology (3 hrs) <br> COT611 Advanced Research Design and Applied Studies in Technology (3 hrs) <br> COT612 Qualitative Research Methods and Design in Technology (2 hrs) <br> COT895 Dissertation Research and Design Seminar (3 hrs)

## Dissertation Research

.. 15 hours
A student may only enroll for doctoral research after reaching candidacy status. Students must enroll in research that results in the writing, defense and presentation of the dissertation.

## COT896/897/898/899 Dissertation Research (1/2/4/8 hrs)

Additional hours of restricted electives, internship, special topics and independent study courses are available at the doctoral level.

## Restricted Electives <br> To be determined.

Internship
COT786/787/788/789 Internship in Technology (1/2/3/4 hrs)
Special Topics
COT779/780/781 Special Topics (1/2/3 hrs)
Independent Study
COT797798/799 Independent Study (1/2/3 hrs)
Program Total ........................................................................ 59 hours

# School of Engineering Technology 

Campus Address: 118 Sill Hall Internet: it.emich.edu<br>Telephone: 734.487.2040<br>FAX: 734.487.8755<br>E-mail: blahidji@emich.edu

See pages 177, 179, 199, 213 and 236 for course descriptions.

The School of Engineering Technology (SET) offers master of science (M.S.) degrees in the following areas: CAE, construction management, engineering management, interior design, quality, and polymers and coatings.

The CAE program is oriented to designers and engineering analysts. The Construction Management program is for individuals with the aspiration of managing commercial and industrial projects. The Engineering Management program is intended for those desiring to manage engineering projects or programs. The students in the Interior Design program develop creative and critical problem solving skills, in order to conceive and formulate interior environments that meet human needs and fulfill human aspirations. Graduates from the Polymers and Coatings Technology program will find employment in research and development laboratories of companies. The Quality program has options for those employed in the industrial or service sectors. Graduate certificates and advanced graduate certificates are also available in quality.

To meet the needs of the busy professional, selected classes and programs are available in the evening, on campus, at various off-campus sites and over the Internet. Students may enroll in these offerings through Continuing Education and need not be admitted to a degree program in order to do so. Those wishing to apply such courses toward a degree must obtain degree admission within a year. Contact the appropriate graduate admissions adviser for further information.

## Admission Requirements

Applicants must:

1. Meet degree admission requirements of the Graduate School;
2. Obtain a baccalaureate from an accredited institution;
3. Have an undergraduate GPA of at least 2.5;
4. Meet program prerequisite skill requirements; and
5. In the case of international students, meet graduate school test score requirements on the TOEFL and TWE, or the MELAB. See the Admissions Web site for minimum scores.

## Conditional Admissions

Conditional admissions may be granted to otherwise qualified students who lack prerequisite courses or are currently in the last semester of their undergraduate degree program.

## Non-degree Admissions

This may be granted to students who earned an undergraduate GPA less than 2.5 or who have graduated from a non-accredited institution. Such students may seek degree admission after completing nine to 12 hours of graduate-level work specified by the department, with a 3.0 GPA.

Students with a bachelor's degree may enroll in graduate courses through continuing education prior to degree admission. The appropriate graduate coordinator can provide a list of courses offered through continuing education.

## Degree Requirements

1. At least 30 hours of graduate credit applicable to the program;
2. At least 16 hours with a 3.0 GPA (B) in School of Engineering Technology;
3. A 3.0 GPA (B), overall;
4. Selection of concentration in construction, CAE, engineering management or quality; and
5. The recommendation of the program adviser and the Graduate School.

## MASTER OF SCIENCE in CAE (CDCM)

## Course Requirements

The M.S. program in CAE requires the completion of 30 hours of course work to be distributed among required core courses and University elective courses.

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Core courses
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``` 26-28 hours EM505 Managing Engineering and Technology (2 hrs) CAE535 3-D CAD Modeling (2 hrs)
QUAL553 Geometric and Surface Texture Tolerancing (2 hrs) QUAL556 Human Aspects of Continuous Improvement (2 hrs) CAE565 Mechanical System Design (2 hrs) CAE585 Advanced Finite Element Analysis (2 hrs) EM636 Analysis of Manufacturing Processes (2 hrs) QUAL647 Research Methods (2 hrs) EM649 Manufacturing Process Planning (2 hrs) CAE650 Computer-Aided Manufacturing (2 hrs) CAE675 CAD/CAM/CNC (2 hrs) CAE690/691/692 Development Project/Thesis (4-6 hrs)
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University Elective Courses .......................................................2-4 hours
Two to four hours selected in consultation with the graduate adviser.
Program Total 30 hours

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Prerequisite skills (dependent on student's admission status):
    CADM324 3-D Solid Modeling (3 hrs)
    CADM325 Applied Mechanics, Kinematics and Design (3 hrs)
    CADM361 Computer Numerical Control (3 hrs)
    QUAL320 Industrial Quality Control (3 hrs)
    CADM435 Finite Element Analysis (3 hrs)
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## MASTER OF SCIENCE in <br> Construction Management (CM)

## Course Requirements

The M.S. program in construction management requires the completion of 30 hours of course work to be distributed among required core courses and University elective courses.

[^22]Cognate Courses.
8-12 hours

500- and 600-level non-construction management graduate courses, with
advisor approval.

Program Total .30 hours

Prerequisite Skills (dependent on student's admission status)
CNST201 Construction Systems (3 hrs)
CNST229 Analysis of Commercial Prints (3 hrs)
CNST302 Contract Documents, Regulations and Specifications (3 hrs)
CNST304 Construction Estimating and Bidding (3 hrs)
CNST361 Planning and Scheduling ( 3 hrs )
CNST403 Production Control (2 hrs)
CNST406 Construction Law (2 hrs)
CNST450 Fundamentals of Construction Project Management (3 hrs)

## MASTER OF SCIENCE in Engineering Management (EGMT)

The M.S. in engineering management is appropriate for a wide range of industrial and/or technically-focused individuals who may have previously pursued a four-year degree in technology, business, engineering or science. It meets the needs of technical professionals who are looking for both an advanced degree and appropriate preparation for their natural progression into management-level positions. It is also designed to help these individuals be more effective in managing the integration of their technicallyfocused jobs with others in team-based projects.

The program particularly fits the needs of engineers, scientists and other technical specialists by focusing on management of technology and intellectual property; research and development, engineering and technical projects; design and manufacturing; and people and organizations. It helps the technical specialist do their current job better, as well as provide a preparation and advanced degree for promotion to management levels.

The program has three options:

1. the 30 credit hour graduate capstone project option;
2. the 30 credit hour thesis option; and
3. the 34 credit hour coursework-only option.

To meet the needs of the busy professional, the program is available entirely online at www.emuonline.edu. Classes are offered live, online and in full-semester and accelerated half-semester formats. Also, out-of-state online students pay lower in-state tuition rates!

## Admission Requirements

## Full Admission

Applicants must:

1. Meet degree admission requirements of the Graduate School.
2. Have an undergraduate GPA of at least 2.5.
3. Have a technical- or industrial-related undergraduate degree, i.e. science, engineering, technology or business.
4. International students must meet University and program TOEFL requirements before being accepted into the program. See the admissions Web site at www.emich.edu/admissions for specific minimum TOEFL score requirements.

Demand for the program is very high. Admission is competitive, with top applicants selected upon periodic review of the pool of applicants submitted to EMU.

## Pre-Admission

Students with a bachelor's degree may enroll in a limited number of graduate courses through Continuing Education prior to degree admission.

## Conditional Admission

Conditional admission status may be granted in special cases, such as to students who are currently in the last year of their undergraduate degree program.

## Non-degree Admission

Non-degree admission status may be granted to students who have graduated from a non-accredited institution, or who may have earned an undergraduate GPA of less than 2.5 . Such students may seek degree admission after completing nine hours of graduate level work, as specified by the department, with a 3.0 GPA.

## Course Requirements

As shown below, there are three options for completing the M.S. in Engineering Management program: a research-based capstone development project option (30 hours), a thesis option (30 hours) or a coursework-only option (34 hours).

EM505 Managing Engineering and Technology (2 hrs)<br>EM509 Engineering Project Management (2 hrs)<br>EM570 Patents and Engineering Law (2 hrs)<br>EM580 Engineering and Enterprise Integration (2 hrs)<br>EM649 Manufacturing Process Planning (2 hrs)<br>EM670 Design for Manufacturing ( 2 hrs )<br>EM694 Seminar (2 hrs)<br>QUAL556 Human Aspects of Continuous Improvement (2 hrs)<br>QUAL647 Research Methods (2 hrs)<br>One course from the following:<br>EM511 Fundamentals of Manufacturing (2 hrs)<br>EM636 Analysis of Manufacturing Processes (2 hrs)<br>Select from either Option I, Option II or Option III:

Option I: Development Project
EM692 Development Project (3 hrs)
EM690 Development Project (1 hr)
QUAL546 Total Quality Management (2 hrs)
QUAL557 Customer Satisfaction (2 hrs)
QUAL558 Lean Production (2 hrs)
Option II: Thesis
EM692 Thesis (3 hrs)
EM690 Thesis ( 1 hr )
EM691 Thesis (2 hrs)
Two courses from the following:
QUAL546 Total Quality Management (2 hrs)
QUAL557 Customer Satisfaction (2 hrs)
QUAL558 Lean Production (2 hrs)
Option III: Coursework-only option
QUAL546 Total Quality Management (2 hrs)
QUAL557 Customer Satisfaction (2 hrs)
QUAL558 Lean Production (2 hrs)
Eight hours of elective courses chosen in consultation with a graduate adviser.

Program Total 30-34 hours

## MASTER OF SCIENCE in Interior Design (IDE)

The objective of the program is to provide opportunities for students to develop the conceptual understanding, analytical and research skills and technological competence required for advanced study or design practice. Whereas the undergraduate degree is generalist in character, facilitating development of entry-level expertise in many design domains, the master's degree is specialist in character, enabling the graduate to develop expertise in a particular domain. Students work with their adviser to plan a program of study that uses their undergraduate coursework and professional practice as a foundation for development of expertise in a design domain of interest to the individual student.

## Admission Requirements

Applicants must:

1. Meet the EMU Graduate Schools admission requirements;
2. Have a 2.75 or better undergraduate GPA;
3. Have earned a bachelor's of art or bachelor's of science in interior design degree or equivalent from an accredited institution;
4. Submit a one page statement indicating personal goals for graduate study in interior design;
5. Receive the recommendation of the interior design graduate program director;
6. In case of international students, meet the Graduate School score requirements on the TOEFL or MELAB and achieve a TWE score of 5.0. See EMU Admissions Web site for minimum scores.
7. With permission of the Interior Design Graduate Program, students who do not hold a B.A. or B.S. degree in interior design may earn the master's of science in interior design as the first professional degree by successfully completing identified undergraduate deficiencies and graduate program requirements. An individualized program of study identifying required undergraduate and graduate courses is developed for each student prior to first semester enrollment, completion of these deficiencies is a requirement for graduation.

## Course Requirements

The master's degree in interior design requires the completion of 30 hours of graduate coursework divided into required courses, supporting interior design courses, cognate courses and thesis courses.

```
Required Courses
``` \(\qquad\)
``` 4 hours
IDE500 Research Design and Method..........................................
IDE501 Problems in Interior Design (2 hrs)
```

Supporting Courses $\qquad$ 10-18 hours
Ten to 18 hours from the following:
IDE502 Facility Programming and Post-occupancy Evaluation (2 hrs)
IDE503 Physical Environments for Aging (2 hrs)
IDE504 Computer-Aided Design for Interiors (2 hrs)
IDE505 Advanced Lighting Design (2 hrs)
IDE508 Universal and Barrier-Free Design ( 2 hrs )
IDE520 Development of Educational Programs (2 hrs)
IDE601 Interior Design Research Methods (2 hrs)
IDE603 History of Furniture and Contemporary Trends (2 hrs)
IDE604 American Interiors (2 hrs)
IDE607 Colloquium ( 2 hrs )
IDE590/591/592 Special Topics ( $1 / 2 / 3 \mathrm{hrs}$ )
IDE597/598/599 Independent Study ( $1 / 2 / 3 \mathrm{hrs}$ )
IDE679/680/681 Special Topics (1/2/3 hrs)
IDE683 Workshop (2 hrs)
IDE686/687/688/689 Practicum (1/2/3/4 hrs)
IDE697/698/699 Independent Study (1/2/3 hrs)
Cognate Courses (courses taken outside the department) .......2-10 hours Required Course

EDPS621 Statistical Application of Educational Research (2 hrs)
Supporting Courses
Additional courses selected in consultation with the graduate adviser

## Deficiencies

Courses determined in consultation with program adviser and completed prior to placement on planned program. Not counted in semester hours for master's degree but are instead additional hours required for academic course deficiencies.

Culminating Experience $\qquad$ 6 hours
IDE691/692/690 Thesis I, II, III (2/3/1 hrs)
Program Total 30 hours

# MASTER OF SCIENCE in Quality (QUAL) 

## Admission Requirements

Applicants must:

1. Meet admission requirements of the Graduate School;
2. Possess a baccalaureate (master's degree or advanced certificate);
3. Possess a minimum undergraduate GPA of 2.5 ;
4. Meet program prerequisite skill requirements; and
5. In the case of international students, meet the graduate school test score requirements on the TOEFL and TWE or MELAB. See the Admissions Web site for minimum scores.

## Course Requirements

The M.S. program in quality requires the completion of 30 hours of course work to be distributed among required core courses and adviser approved University elective courses.

```
Core Courses
    22-24 hours
    QUAL550 Advanced Statistical Process Control (2 hrs)
    QUAL551 Design of Experiments (2 hrs)
    QUAL552 Quality Planning (2 hrs)
    QUAL553 Geometric and Surface Texture Tolerancing (2 hrs)
    QUAL554 Reliability, Maintainability and Product Safety (2 hrs)
    QUAL555 Quality Auditing (2 hrs)
    QUAL556 Human Aspects of Continuous Improvement (2 hrs)
    QUAL647 Research Methods (2 hrs)
    QUAL651 Advanced Design of Experiments (2 hrs)
    QUAL690/691/692 Development Project/Thesis (4-6 hrs)
```

University Elective Courses .6-8 hours
Six to eight hours selected in consultation with a graduate adviser
Program Total .30 hours

Prerequisite skills: the following courses and, if necessary, their prerequisites may be required:
CADM101 Introduction to Industrial Drawing (3 hrs)
QUAL320 Industrial Quality Control (3 hrs)

## MASTER OF SCIENCE in Polymers and Coatings Technology (PLT)

This program prepares chemists for employment in the coatings industry or for further study at the doctoral level. Applicants must have an ACS-approved chemistry degree or equivalent. This interdisciplinary program utilizes courses from various departments. A committee composed of faculty from chemistry and the polymers and coatings program functions as the graduate committee for the program.

## Admission Requirements

Applicants must:

1. Meet degree admission requirements of the Graduate School;
2. Possess a baccalaureate in chemistry (minimum 24 hours in chemistry);
3. Have had one year of physical chemistry;
4. Have had one year of organic chemistry; and
5. Have had an instrumentation class.

Note:
Exceptions can be made for students who pass approved undergraduate course(s) at Eastern Michigan University.

## Course Requirements

The M.S. program in polymer technology requires the completion of 30 to 34 hours of course work to be distributed among required core courses, concentration courses and capstone experience courses.


Capstone Experience Courses $\qquad$ .0-6 hours Select up to six hours from special topics or other graduate courses or from other courses with adviser approval.

INDT570 Coating Evaluation and Testing (2 hrs)
INDT591 Special Topics in Coating (2 hrs)
INDT592 Special Topics in Coating (3 hrs)
QUAL551 Design of Experiments (2 hrs)
Research or Independent Studies. $\qquad$ .4-6 hours $\dagger$ Select from either option I or option II:

Option I:
INDT697 Independent Studies ( 1 hr )
INDT698 Independent Studies (2 hrs)
INDT699 Independent Studies (3 hrs)
Option II:
INDT690 Thesis ( 1 hr )
INDT691 Thesis (2 hrs)
INDT692 Thesis (3 hrs)
Program Total
30-34 hours

## Note:

$\dagger A$ non-thesis option may be elected by students from industry on the recommendation of the graduate advisory committee.
$\ddagger$ Students who have taken the 400-level courses in their undergraduate studies may choose option B or select courses from core concentration or capstone experience.

## GRADUATE /ADVANCED GRADUATE CERTIFICATE in Quality (QTC)

The department offers graduate certificates in quality for those who desire to obtain advanced skills in the quality field without obtaining a master's degree. The advanced graduate certificate is awarded to those possessing a master's degree at the beginning of the advanced graduate certificate program.

Admission Requirements
Applicants must:

1. Meet admission requirements of the Graduate School;
2. Possess a baccalaureate (master's degree or advanced certificate);
3. Possess a minimum undergraduate GPA of 2.5 ;
4. Meet program prerequisite skill requirements; and
5. In the case of international students, meet the graduate school test score requirements on the TOEFL and TWE, or MELAB. See the Admissions Web site for minimum scores.

## Certificate Requirements

This certificate requires 18 hours of course work as follows:
QUAL550 Advanced Statistical Process Control (2 hrs)
QUAL551 Design of Experiments (2 hrs)
QUAL552 Quality Planning (2 hrs)
QUAL553 Geometric and Surface Texture Tolerancing (2 hrs) QUAL554 Reliability, Maintainability and Product Safety (2 hrs) QUAL555 Quality Auditing (2 hrs)
QUAL556 Human Aspects of Continuous Improvement (2 hrs)
QUAL557 Measuring Customer Satisfaction (2 hrs)
QUAL651 Advanced Design of Experiments (2 hrs)
Program Total 18 hours
Prerequisite Skills: The following courses and, if necessary, their prerequisites may be required:
CADM101 Introduction to Industrial Drawing (3 hrs)
QUAL320 Industrial Quality Control (3 hrs)

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

## CADM433 Design Modeling Strategies (3 hrs)

## School of Technology Studies

Campus Address: 122 Sill Hall
Internet: www.emich.edu/sts
Telephone: 734.487.1161
FAX: 734.487.7690
E-mail: morell.boone@emich.edu
See pages 172, 173, 176, 212, 214, 218 and 249 for course descriptions.

The School of Technology Studies offers programs leading to the master of science degrees in apparel, textiles and merchandising; career, technical and workforce education; and hotel and restaurant management. Also, it offers programs leading to and the master of liberal studies in technology and a graduate certificate in information security.

# MASTER OF SCIENCE in Apparel, Textiles and Merchandising (ATM) 

## Objectives

The objective of the program is to provide the conceptual understanding and analytical and research skills needed for advanced study or professional practice. Each concentration offers an opportunity for the student and the adviser to create a program that reflects individual career and study goals.

```
Required Department Courses
```

$\qquad$

```8 hours
        HECR500 Research Design and Methods (2 hrs)
    ATM625 The Fashion Field ( 2 hrs )
    ATM634 Consumer Problems in Clothing and Textiles (2 hrs)
    ATM644 Recent Developments in Textiles and Clothing (2 hrs)
```

Supporting Courses ..............................................................6-14 hours
Six to fourteen hours from the following:
ATM504 History of Textiles (2 hrs)
HECR520 Development of Educational Programs (2 hrs)
ATM590/591/592 Special Topics (1/2/3 hrs)
ATM597/598/599 Independent Study ( $1 / 2 / 3 \mathrm{hrs}$ )
ATM603 Apparel \& Textiles Market Analysis (2 hrs)
ATM607 Colloquium ( 2 hrs )
ATM614 Socio-Psychology of Clothing (2 hrs)
ATM635 History of Costume (2 hrs)
ATM645 Clothing Design and Construction (3 hrs)
ATM675 Textile Analysis (2 hrs)
ATM679/680/681 Special Topics (1/2/3 hrs)
ATM681 Advanced Textiles (3 hrs)
ATM683 Workshop (2 hrs)
ATM686/687/688/689 Practicum (1/2/3/4 hrs)
ATM697/698/699 Independent Study (1/2/3 hrs)
Culminating Experience ............................................................ 6 hours
Select from either option I or option II:
Option I: ATM690/691/692 Thesis I, II, III (1/2/3 hrs)
Option II: ATM600/695/650 Research Project I, II, III (2/3/1 hrs)

Cognate Courses (courses taken outside the department) $\qquad$ 2-10 hours Required Cognate Course

EDPS621 Statistical Application of Educational Research (2 hrs) Supporting Courses

Additional courses selected in consultation with the graduate adviser. Deficiencies

Courses determined in consultation with program adviser and completed prior to placement on planned program. Not counted in semester hours for master's degree but are additional hours required for deficient academic courses.

Program Total
30 hours

## MASTER OF SCIENCE in Career, Technical and Workforce Education (CTWE)

The purpose of this master's degree is to help teachers and workforce trainers acquire specific knowledge about the applications and consequences of technology in education and training. Insights and leadership skills will be acquired concerning the effects of technology on work, employees and organizations.

## Objectives

The goals of this master's degree program are to:

1. Promote understanding of technology as it affects careers and work;
2. Provide knowledge of current theory and research relevant to pertinent fields of specialization;
3. Demonstrate and model basic competence in applied research;
4. Deepen understanding of teaching and training; and,
5. Provide applications of curriculum and program development principles in school and/or workplace programs.

## Admission Requirements

Applicants must:

1. Have a bachelor's degree from an accredited institution with a minimum GPA of 2.75; applicants not meeting the 2.75 cumulative GPA requirement may be admitted conditionally, based on the strength of letters of support and scores on the GRE;
2. Have a GRE score that is not more than five years old;
3. Have an undergraduate major or minor in business, marketing, technology or vocational education and hold a valid teaching certificate in any of those fields or have work experience in a workforce development position; applicants without certification may be admitted in cases where the content of this program is deemed appropriate for their professional development; and
4. Meet above requirements and the Graduate School requirements on the TOEFL, if international students. Admission may occur in any semester. See the Admissions Web site for minimum scores.

## Course Requirements:

The master of science in career, technical and workforce education requires the completion of 30 semester credit hours to be distributed among core courses, specialization courses and a capstone experience, as follows:

```
Core Courses
```

$\qquad$

``` 11 hours
    BTED611 Curriculum Frameworks in Career, Technical and Work-
        force Education (3 hrs)
    BTED661 Evaluation Standards and Strategies in Career, Technical
        and Workforce Education (3 hrs)
    BTED665 Trends and Administration in Career, Technical and
        Workforce Education (3 hrs)
    TEDU530 Technology in the Workplace (2 hrs)
Specialization Courses .......................................................... }9\mathrm{ hours
    Chosen from the disciplines of business or technology education or from
    other units within the college or from related fields outside the college, in
    consultation with a graduate adviser. Options include:
        BEDU569 Foundations of Business Education (3 hrs)
        BEDU526 Basic Business and Economic Education for
            Teachers (3 hrs)
        BEDU560 Entrepreneurship Education (2 hrs)
        BTED695 Professional Seminar in Business and Technology
                Education (3 hrs)
        TEDU530 Technology in the Workplace (2 hrs)
        TEDU551 Philosophy of Technology Education (3 hrs)
        TEDU651 Administration of Vocational-Technical
            Education (2 hrs)
```

Other fields from which a concentration of course work could be selected include construction management, economics 500-509, quality technology, educational leadership, educational technology, sociology 500-509, liberal studies in technology, manufacturing and HR/OD.

Research Applications................................................................ 5 hours
BTED678 Research in Business and Technology Education (3 hrs)
EDPS687 Qualitative/Interpretive Research (2 hrs)
Capstone Experience................................................................... 5 hours
One course from the following:
BEDU690/691/692 Thesis ( $1 / 2 / 3 \mathrm{hrs}$ )
TEDU690/691/692 Thesis (1/2/3 hrs)
Thesis or culminating applied action research project written
under supervision of a graduate adviser.

Program Total 30 hours

# MASTER OF SCIENCE in Hotel and Restaurant Management (HRM) 

The graduate curriculum in this program is designed to provide a broad philosophy of the fields in the hospitality industry, with in-depth concentration in the areas of hotel and restaurant management.

## Objectives

The objective of the program is to provide the conceptual understanding and analytical and research skills needed for advanced study or professional practice. Each concentration offers an opportunity for the student and the adviser to create a program that reflects individual career and study goals.

```
Required Courses
```

$\qquad$

``` 6 hours
    HECR500 Research Design and Methods (2 hrs)
    HRM609 Advanced Topics in Food-Service Management (2 hrs)
    HRM610 Advanced Topics in Hospitality Management (2 hrs)
Supporting Courses.
    10-16 hours
        Ten to 16 hours from the following:
            HRM519 Human Resource Management in Hospitality and
                Nutrition Service (2 hrs)
            HRM521 Quality Service Management (2 hrs)
            HRM560 Service Strategies for Hospitality Industry (2 hrs)
            HRM626 Productivity Management in Hospitality and Food-
                Service Facilities (2 hrs)
            HRM629 International Hospitality Management (2 hrs)
            HRM639 Contemporary Issues in Hospitality Strategies (2 hrs)
            HRM655 Financial Strategies for Hospitality Operations (2 hrs)
            HRM587 Cooperative Education in Hospitality
                Management (3 hrs)
            HRM590/591/592 Special Topics (1/2/3 hrs)
            HRM597/598/599 Independent Study (1/2/3 hrs)
            HRM607 Colloquium (2 hrs)
            HRM679/680/681 Special Topics (1/2/3 hrs)
            HRM683 Workshop (2 hrs)
            HRM686/687/688/689 Practicum (1/2/3/4 hrs)
            HRM697/698/699 Independent Study (1/2/3 hrs)
```

Culminating Experience $\qquad$ .6 hours Select from either option I or option II:

Option I: HRM690/691/692 Thesis I, II, III (1/2/3 hrs) Option II: HRM600/695/650 Research Project I, II, III (2/3/1 hrs)

Cognate Courses (courses taken outside the department).................2-8 hours Required Cognate Course

EDPS621 Statistical Application of Educational Research (2 hrs) Supporting Courses

Additional courses selected in consultation with the graduate adviser. Deficiencies

Courses determined in consultation with program adviser and completed prior to placement on planned program. Not counted in semester hours for master's degree but are additional hours required for deficient academic courses.

Program Total
30 hours

## MASTER OF LIBERAL STUDIES in Technology (INDT)

This interdisciplinary degree program prepares students for managerial, administrative or consulting positions with technology-based organizations addressing the social, political, moral and economic affects of technology. Students may tailor their programs of study to meet specific educational and employment objectives.

In particular, M.L.S. students will acquire knowledge of and facility with:

1. Central concepts and issues related to the study of technology and society;
2. Significant technical developments and their effects on individuals, societies, the environment and the workplace;
3. Technological systems and their effects on the quality of life;
4. The integration of information from various sources and disciplines to solve sociotechnical problems; and
5. Major tools and methodologies for assessing technology's impact.

The M.L.S. program in technology promotes flexibility - enabling students to design more than one half of the program to suit specific educational employment objectives. Working students can pursue a degree, either full time or part time, with all core courses offered in the evening. Many concentrations offer business or industrial placement as an option for the capstone experience. An additional feature of the program is the opportunity students have to meet practitioners in business and industry through lectures, seminars and conferences with outside experts.

## Admission Requirements

Applicants must:

1. Have a bachelor's degree from an accredited institution;
2. Have a minimum GPA of 2.75 (or 3.0 in their final 60 hours of undergraduate study);
3. Submit two letters of recommendation to be included with the application for graduate school submitted to EMU's Office of Admissions; and
4. In the case of international students, meet the graduate school minimum scores for the TOEFL and TWE, or MELAB. See the Admissions Web site for minimum scores.

## Note:

In addition, a program planning interview with an adviser is required upon admission.

## Conditional or Non-Degree Admission Status

Conditional admission may be granted to students who meet the degree admission requirements of the Graduate School, but have undergraduate curricular deficiencies or do not meet other departmental admission requirements.

Non-degree admission (status I: academic deficiencies) may be granted to promising students who do not meet undergraduate GPA requirements. Students may not repeat courses to attain the required GPA.

Students who meet the probationary requirements of conditional or non-degree admission will be granted regular admission after completing 10 hours of course work (identified with the adviser) with a B+ average.

## Program Requirements

A total of 30 to 32 hours required for the M.L.S.:

1. Fourteen credit hours of the core curriculum
2. A minimum of 12 credit hours of complementary concentration
3. Four to six hours of capstone experience

## Course Requirements

The M.L.S. in technology requires the completion of at least 30 hours of coursework to be distributed among required core courses, complementary concentration courses and capstone experience courses.

Core Courses ........................................................................... 14 hours
INDT500 Introduction to Interdisciplinary Technology (3 hrs)
INDT501 History of Technology (4 hrs)
INDT601 Multidisciplinary Seminar in Technology (2 hrs)
INDT602 Contemporary Issues in Technology (2 hrs)
INDT680 Technology Assessment (3 hrs)

## Complementary Concentration Courses . <br> $\qquad$ 12 hours

 Select two or more complementary concentrations designed by the student and adviser. A minimum of four hours is required in each of the complementary areas of study.Representative complementary concentrations include:
Chemistry
Communication
Computer science
Economics
Foreign language
Geography and geology
History and philosophy
Industrial technology
Information security
Information systems
Instructional technology
Management and marketing
Mathematics
Operations research
Police staff and command
Political science
Psychology and sociology
Robotics and manufacturing
Technology management
Women's studies
Other areas are available depending upon the interests and needs of the student. Students should consult with the M.L.S. adviser for additional information and specific course approval.

Capstone Experience Courses..................................................4-6 hours
Select from either option I, option II or option III:
Option I:
INDT690/691/692 Thesis (6 hrs)
Option II:
INDT697/698/699 Independent Study (4 hrs)
Option III:
INDT587 Cooperative Education in Interdisciplinary
Technology (3 hrs)
INDT697 Independent Study ( 1 hr )
Program Total
30 hours

## GRADUATE CERTIFICATE in Information Security (ISEC)

The information and security graduate certificate provides professionals with instruction necessary to participate in a team-based information security or protection program in larger organizations and to initiate and manage programs in smaller organizations. The program is appropriate for professionals with special needs (as for example, those in legal fields, law enforcement, computer training and education, marketing or other fields concerned with information security-related issues and or products and services). The program can also, with appropriate preparatory experiences, serve a general educational role for individuals who want to become better decision makers and more knowledgeable participants/discussants in legislative and ethical issues.

## Objectives

1. Demonstrate and apply knowledge of federal, state and international law to information security cases and contemporary events. The primary areas of competence include, but are not limited to: computer crime, intellectual property, privacy and confidentiality, and cryptography.
2. Analyze and take informed positions on ethical issues that relate to information collection, processing, storage and transmission.
3. Evaluate and write policies, procedures and plans that provide the foundation for a sound information security program.
4. Assess risks to the security of information based on threats and vulnerabilities; establish security requirements for organizations to reduce risks.
5. Prepare a comprehensive information security program plan for organizations and prepare related documents necessary to implement and maintain a comprehensive program.
6. Pose a significant information security problem and prepare a proposal for its study using a generally accepted methodology for the study.
7. It is also the goal of the program to provide instruction that aids individuals who are preparing for the Computer Information System Security Professional (CISSP) examination.

## Admission Requirements <br> Applicants must:

1. Obtain a baccalaureate from an accredited institution;
2. Have an undergraduate GPA of 2.75 or higher;
3. Have a goal statement as part of the admission application that is consistent with program objectives;
4. Submit a minimum of two letters of recommendation focusing on evidence of experience relevant to information security; and
5. Submit a goal statement demonstrating how the graduate certificate program will help the student's professional goals.

Note:
Qualifying students may apply 13 hours to the master of liberal studies program in interdisciplinary technology.

Certificate Requirements
This certificate requires 17 hours of course work as follows:
BEDU542 Information System Security Overview for Managers (3 hrs)
BEDU543 Systems Operating Environment for Information Security System Administrators (2 hrs)
INDT522 Physical Security Requirements for Information Systems (2 hrs)
INDT532 Audit Controls in Information Security (2 hrs)
BEDU544 Administrative Information Security Procedures (2 hrs)
BEDU546 Vulnerability, Risk and Analysis (2 hrs)
Restricted elective to be determined in consultation with the adviser (2 hrs)
*BTED694 Professional Seminar in Information Assurance (2 hrs)

## Certificate Total. .. 17 hours <br> Note: <br> *BTED694 to be taken at the end of the program. <br> In order to obtain the graduate certificate, an overall GPA of 3.0 is required.

## Undergraduate Courses for Graduate Credit

The following courses may be elected for graduate credit; course descriptions may be found in the undergraduate catalog. A maximum of nine hours of approved 400 -level course work may be permitted in the earning of any graduate degree.

If you intend to enroll in any of the following undergraduate courses for graduate credit, you must submit a request form from the Graduate School to receive permission before enrolling in the course; otherwise, you will receive undergraduate credit.

[^23]INDT420 Woman and Technology (3 hrs)
INDT422 Senior Seminar in Aviation Management (3 hrs)
INDT425 Communication Technology and Social Change (3 hrs)
INDT433 Suspicious Fire/Arson Investigation (3 hrs)
INDT434 Incident Analysis Hazardous Materials (3 hrs)
INDT435 Incident Command (3 hrs)
INDT436 Electronic Publishing Technology (3 hrs)
INDT460 Advanced Coatings Topics (3 hrs)
INDT479 Special Topics (1/2/3 hrs)
INDT495 Technology, Values and the Future (3 hrs)

# Department of Military Science and Leadership (MSL) 

Campus Address: 18 Roosevelt Hall Internet: cot.emich.edu/ms Telephone: 734.487.1020

Although military science and leadership does not offer a graduate degree program, the Department of Military Science and Leadership provides eligible graduate students with training that permits entry into the active Army, Army National Guard or Army Reserve as commissioned officers.

An applied approach to leadership is used in military science and leadership with students by placing them in leadership positions and helping them learn through application. The intent is to create the necessary skills to lead and motivate soldiers and the ability to operate in demanding environments.

Graduate students can also earn a two-year graduate scholarship. The scholarship provides up to $\$ 17,000$ per year for tuition and mandatory fees, the student is provided a book allowance of $\$ 600$ per year and a tax free stipend up to $\$ 4,000$ per year. Students incur no obligation to the Army by applying for this scholarship. Leadership development courses offered by military science and leadership are taken on campus while attending graduate school. Upon receiving a graduate degree and completing the required courses in military science and leadership, the graduate is commissioned a second lieutenant. Contact the department of military science and leadership for eligibility requirements.

The Department of Military Science and Leadership is responsible for the conduct and support of the campus Veterans Service Office. Tasked with ensuring EMU student veterans are academically and financially prepared, the Veterans Service Office is manned and serviced by full- and part-time work-study students and VA personnel.

# Division of Academic Affairs Courses 

AADV59i Special Topics 2 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics courses may be used on a degree program.

## African American Studies Courses

## AASjoi Foundational Issues in African American Studies <br> 3 HRS

 This course provides an advanced examination of theoretical and conceptual issues that form the epistemological foundation of AfricanAmerican studies. It investigates key studies, scholars and theories in the field. Readings and discussions pay close attention to the relationship between theory and empirical research and their applications to contemporary social issues.
## AASsoz Public Policy and African

 Americans3 HRS This course examines the implications of major and evolving national public policies and policy alternatives for economically vulnerable and/or historically disadvantaged segments of the population, particularly African Americans. Such policies include those related to social welfare, education, campus climate, employment, mass communication, housing, affirmative action, and drug and crime control.

AASgo4 Politics in the African American
Experience
3 hrs This course is designed to provide the student with an advanced and critical knowledge of black political behavior in the United States in its evolution from protest to contemporary, institutional politics.

## AASjos The African Political

## Economy

3 HRS
This course serves as an advanced and critical survey of Africa's contemporary political economy. In examining post-colonial developments, the course focuses on regional and national strategies for social transformation.

AAS54I Law, Race and Community 3 hrs AAS541 examines the legal history of African Americans and the related search for a concept of community within the United States. The course ranges from European movement into the Western Hemisphere in the 1400s to the challenges of race and structural inequalities of the 21 st century.

## AASs42 Race and Crime and the African American Experience <br> 3 HRS

This course will provide a comparative analysis of the experience of African Americans and other groups with the criminal justice system
in the United States. Students will critically examine historical patterns, theories of race and crime and the effects of race and class on social attitudes and criminal justice practices.

## AAS543/PLSC543 Civil Rights and the

African American Experience 3 hrs AAS543/PLSC543 Civil Rights and the African American Experience will explore the impact of race as a dominant and dynamic force that has shaped the interpretation of the Constitution and subsequent Civil Rights Acts. Students will critically examine how black communities organized for change and how the Civil Rights movement contributed to American political reform.

AAS590/591/592 Special Topics i/2/3 hrs Special topics is important to the in-depth and advanced study of the African American experience. Students may develop a course of study that can lead to a certificate program or master's degree in African American studies. Not more than six hours of special topics may be used on a degree program.
Prereq: graduate standing, senior standing with permission

AAS597/598/599 Independent Study i/2/3 hrs Advanced study on an individual basis in areas not covered, or not covered in depth, in formal course work. May be repeated for credit.
Prereq: department permission

## AAS6o2 Researching Black

## Communities

3 HRS
Through the application of qualitative and ethnographic techniques, students will study groups, institutions and other social phenomena that affect African American communities and culture. Social research will be linked to intellectual and theoretical traditions in the field of African American Studies.

## Accounting Courses

ACCsoi Accounting Principles 3 hrs Emphasizes analysis of the required financial statements for financial reporting purposes, including discussions of alternative accounting principles generally acceptable in their preparation. Significant emphasis also placed on the impact that business transactions have on a company's financial position. Additional topics include profit-planning techniques, such as cost-volume-profit analysis and budgeting. Admission to the MBA program is required.

## ACC540 Corporate Financial <br> Reporting

3 HRS
An examination of the generally accepted accounting principles used in corporate financial reporting with particular emphasis on advanced topics such as equity, long-term assets and liabilities, revenue recognition, prior period adjustments and cash flows. Also included is the role of the SEC in financial reporting of publicly traded companies.
Prereq: ACC340

ACCs4i Advanced Financial

## Accounting

3 HRS
Specialized topics in accounting with major emphasis on conceptual aspects and reporting of consolidated financial statements, international accounting challenges and foreign currency reporting issues.
Prereq: ACC540 or equivalent and department permission

ACC544 Taxation of Entities 3 hrs This course is an introductory level study of the taxation of individuals, corporations, partnerships and subchapter S Corporations. It develops a basic knowledge of tax rules useful and necessary in business management. The course also provides a foundation for the study of tax planning, research and compliance.
Prereq: ACC501 or (ACC240 and ACC241)

## ACC546 Public and Nonprofit Sector

 Accounting3 HRS Accounting issues in governmental and nonprofit entities, including financial reporting, managerial accounting, information systems, auditing, and regulatory and taxation issues. Also included is the S.E.C.'s role in financial reporting.
Prereq: ACC340 or equivalent or department permission

## ACC548 Information Systems Audit and Control <br> 3 HRS

This course covers the processing of audit in a computerized accounting information systems environment, and the evaluation of controls and risks in determining audit decisions.
Prereq: ACC605 or ACC356
ACC567 Professional Auditing 3 hrs A study of auditing concepts, objectives and procedures, and of the literature as it relates to current audit problems.
Prereq: ACC340/356 or ACC605
ACC585 Business Tax Planning 3 hrs Conceptual coverage of the tax system, taxable and tax-reporting business entities, and principles of taxation for the purpose of identifying the tax planning opportunities in business decisions. Prereq: ACC501

## ACCs86 Cooperative Education in

 AccountingI HR
Accounting employment at a business or public organization imparting a practical experience in accounting. Position may be part-time, volunteer, or less than a full semester in duration. Does not count toward M.S.A. or MBA requirements. Admittance by application only. Offered on a credit/no credit basis.
Prereq: department permission
ACC589 Accounting Internship 3 Hrs Directed, full-time accounting work experience in a business or public organization. Does not count toward M.S.A. or MBA requirements. Offered on a credittno credit basis. Admittance by application only.
Prereq: department permission

ACC $590 / 591 / 592$ Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## ACC597/598/599 Independent Study I/2/3 HRS

Directed study or problems in accounting not otherwise treated in department courses.
Prereq: department permission

## ACC6os Strategic Information \&

 Control Systems3 HRS
Builds on the foundation laid in ACC501 to continue the study and use of accounting information for strategic management, planning, control and managerial decision-making. The objective is for students to recognize the value and limitations of management accounting systems and how accounting information can be used to improve operations. Admission to the MBA or M.S.A. program is required.
Prereq: ACC501, ECON500, FIN502,
LAW503, MKTG510, POM503, MGMT505; and MGMT600, DS602, MGMT604, IS605 Coreq: IS605

## ACC6io Enterprise Systems

3 HRS
Provides the fundamentals of reengineering and using and analyzing enterprise systems to produce efficient and effective management information and appropriate analysis and interpretation for strategic management decision making.
Prereq: ACC605 or ACC356
ACC6il Accounting for E-Commerce 3 hrs This course explores the e-commerce environment including valuing stock of e-commerce firms, understanding the role of accountants in assessing risk and providing assurance over the authentication of e-commerce transactions, as well as tax and privacy issues.
Prereq: ACC501

## ACC642 Strategic Cost Management

(SCM)
3 HRS
The role of cost management in strategic quality management. Cost accounting systems for continuous improvement; conceptual design, accounting models, performance measurement and investment performance. Topics also include advanced managerial accounting issues, such as activity based costing, profit and investment centers, project planning and control.
Prereq: ACC605

## ACC644 Tax Research Methods, Practice and Problems

3 HRS Introduction of tax research methods including identification of tax issues, efficient use of tax resources, and effective communication of the research process.
Prereq: ACC501

## ACC646 Financial Management of

 Nonprofit Organizations 3 HRS Financial management issues in public and nonprofit organizations, including accountability for performance, financial reporting, budgeting and costs, information systems, governance issues, decision-making techniques, relations with governmental and private funding sources.
## ACC6so Internal Auditing

3 HRS Introduction to the profession of internal auditing. Includes professional standards, techniques, scientific methods, reporting, operational auditing and internal audit management.
Prereq: ACC501 or department permission

## ACC656 Accounting Systems

Implementation and Projects 3 hrs A capstone course for the Accounting Information Systems track designed to develop expertise in the implementation of an accounting information system.
Prereq: IS645 or IS380; and ACC605 or ACC356

## aCC672 Investment and Tax Financial Planning <br> 3 HRS

This course focuses on the study of tax policy and the economic environment as it relates to strategic tax planning for investments, compensation, business and personal taxation. Basic tax rules that impact compensation planning from the point of view of the employer and the employee are covered along with the tax rules that are relevant for investment planning. An introduction to the rules governing trusts, estates and gifts is also part of the course.
Prereq: ACC501

## aCC675 International Accounting and <br> Taxation <br> 3 HRS

Introduction to accounting in an international environment. Includes the study of environmental factors, performance evaluation, financial reporting, international taxation and specific accounting and auditing problems.
Prereq: ACC605 or department permission
ACC679/680/68I Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## ACC696 Accounting Theory, Research and Policy <br> 3 HRS

A capstone course emphasizing and developing an understanding of the many interrelated applications of accounting in organizations and in the broader setting of financial markets.
Prereq: department permission

## ACC697/698/699 Independent Study I $2 / 3$ HRS

Directed study or problems in accounting not otherwise treated in department courses. Prereq: completion of M.S.A. or MBA tool core and department permission

## Anthropology Courses

## ANTH502/SOCL5o2 Racial and Cultural <br> Minorities <br> 3 HRS

Racial and cultural minorities in the modern world, with particular reference to African Americans and to European and Asian immigrants in the United States; racial myths, doctrines and movements; conflict and accommodation of majority and minority peoples; proposed solutions of ethnic problems. Not open to students with credit in ANTH214/SOCL214.

## ANTH509/SOCL509 Personality and <br> Social Systems <br> 2 HRS

The cross-cultural study of personality and sociocultural systems. Attention is paid to modal personality types as these relate to group structure, socialization and social structure. Individual differences are not studied. Not open to students with credit in ANTH09/SOCL309.

## Art Courses

ARTsoo Photography
2 HRS
Advanced studio course in photography. Based on background and need of students. Designed for graduate students not majoring in photography.
Prereq: department permission
ARTso4 Aesthetic Education 2 hrs This course provides an opportunity to explore and research the four components of disciplinebased art education. Emphasis will be placed on aesthetics, its connections with art education, and its relationship to general education.

## ARTjos Curriculum Development (Art Education) <br> 2 HRS

 Fundamentals of curriculum development and an interdisciplinary approach for developing and implementing the four components of disciplinebased art education into school art programs.
## ARTso6 ARTAG (Art for the Talented and Gifted) <br> 2 HRS

A workshop course involving interaction of students as teachers with elementary and junior high students from area schools. Focus will be on a unit of study in art using discipline-based art education. May be repeated for credit.

## ARTso7 Studio Connections in Art

Education
2 HRS
A course designed to help students strengthen their skills in developing units of study for both two-dimensional and three-dimensional art areas using the components of discipline-based art education. May be repeated for credit.

## ARTyo8 Research in Art Education 2 hrs

 A course designed for individual research. The purpose is to further studies in art education and to share this information with peers. May be repeated for credit.
## ARTso9 Graphic Design <br> 2 HRS

 Advanced graduate studio course in graphic design. Based on background and need of students. Intended for graduate students not concentrating in graphic design. May be repeated for credit. Art majors only.Prereq: department permission
ARTsio Ceramics
2 HRS
Studio course in ceramics. Art majors only. May be repeated for credit.

ARTs2o Drawing
2 HRS
Advanced studio course in drawing. Art majors only. May be repeated for credit.

ART 530 Seminar in 2oth Century Art 3 hrs Readings, reports and group discussions on 20th century art. Topics may vary. Art majors only.

ART540 Jewelry 2 hrs
Advanced studio course in jewelry. Art majors only. May be repeated for credit.

ART550 Printmaking 2 hrs
Advanced studio course in graphics. Art majors only. May be repeated for credit.

ART555 Textiles
2 HRS
Advanced studio course in textiles. Art majors only. May be repeated for credit.

ART560 Watercolor
2 HRS
Advanced studio course in watercolor. Art majors only. May be repeated for credit.

ART570 Sculpture 2 hrs
Advanced studio course in sculpture. Art majors only. May be repeated for credit.

ART580 Painting
2 HRS
Advanced studio course in oil painting. Art majors only. May be repeated for credit.

ART590/591/592 Special Topics $1 / 2 / 3$ hrs A graduate-level course in a specific area of art, to be determined by the field of specialization of the instructor and the interest of the student. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
ART595/596 Workshop in Art 2/3 hrs A workshop in studio art/art education/art history focusing on personal observation of the visual arts of a particular area. May be repeated for credit.
Prereq: department permission
ART $597 / 598 / 599$ Independent Study i/2/3 hrs Advanced study on an individual basis in areas not covered, or not covered in depth, in formal course work. May be repeated for credit.
Prereq: department permission
ART6oo Photography I inr Advanced studio course in photography. Based on background and need of students. May be repeated for credit.

ART6oi Photography II 2 hrs
Advanced studio course in photography. Based on background and need of students. This course allows the student a more intense photographic experience than ART600. May be repeated for credit.
Prereq: department permission
ART602 Photography III
3 HRS
Advanced studio course in photography. Based on background and need of students. This course allows the student a more intense photographic experience than ART601. May be repeated for credit.
Prereq: department permission
ART603 Photography IV 4 hrs Advanced studio course in photography. Based on background and need of students. This course allows the student a more intense photographic experience than ART602. May be repeated for credit.
Prereq: department permission
ARTgos Advanced Design Studies i hr In this class, students are expected to conduct intensive research in design history, theory and criticism. Readings focus on the evaluation of design and on cultural factors that impact design. Reading and writing is stressed. May be repeated for credit. MA students in major only. Prereq: department permission

## ART6o6 Advanced Studio in Graphic

Design I
2 HRS
In this class, students are expected to conduct research, produce project proposals and generate studio projects. There may be occasional assigned projects. This class encourages innovative conceptualization and visual experimentation in studio work. May be repeated for credit. MA students in major only.
Prereq: department permission

## ART6o7 Advanced Studio in Graphic Design II <br> 3 HRS

 In this class, students are expected to conduct more independent project proposals and studio projects than in ART606. There may be occasional assigned projects. This class encourages innovative conceptualization and visual experimentation in studio projects. May be repeated for credit. MA students in major only.Prereq: department permission

## ART6o8 Intensive Studio in Graphic Design I

4 HRS
In this studio class, students are expected to conduct more independent research and generate more independent studio projects than in ART607. Detailed project proposals are required. This class encourages innovative conceptualization and visual experimentation in studio projects. May be repeated for credit. MA students in major only.
Prereq: department permission

## ART6o9 Intensive Studio in Graphic

Design II
4 HRS
In this studio class, students are expected to conduct more independent research and generate more complex, independent studio projects than in ART608. Detailed project proposals are required. This class encourages innovative conceptualization and visual experimentation in studio projects. May be repeated for credit. MA students in major only.
Prereq: ART608 and department permission
ART6io/6if/6I2 Ceramics I/2/3 hrs Advanced studio courses in ceramics. Based on background and need of the student. Graduate majors only. May be repeated for credit.

ART620/62I/622 Drawing I/2/3 HRS Advanced studio courses in drawing. Based on background and need of the student. Graduate majors only. May be repeated for credit.

ART630 Graduate Studio 9 hrs The first of the four graduate studio courses leading to the M.F.A. degree. Course is conducted on a one-to-one basis. Instructor is selected for the student upon his/her acceptance into the program by the department's graduate committee. M.F.A. candidates only. May be repeated for credit.
Prereq: department permission

## ART63i Graduate Studio <br> 9 HRS

The second of the four graduate studio courses leading to the M.F.A. degree. Instructor is selected for the student upon his/her acceptance into the program by the department's graduate committee. M.F.A. candidates only. May be repeated for credit.
Prereq: department permission
ART640/64I/642 Jewelry I/2/3 HRS Advanced studio courses in jewelry. Based on background and need of the student. Graduate majors only. May be repeated for credit.

ART650/65i/652 Printmaking I/2/3 HRS Advanced studio courses in graphics. Based on background and need of the student. Graduate majors only. May be repeated for credit.

ART655/656/657 Textiles I/2/3 hrs Advanced studio courses in textiles. Based on background and need of the student. Graduate majors only. May be repeated for credit.

ART660/66I/662 Watercolor I/2/3 HRS Advanced studio courses in watercolor. Based on background and need of the student. Graduate majors only. May be repeated for credit.

ART665/666/667/668 Painting i/2/3/4 HRS Advanced studio courses in oil painting. Based on background and need of the student. Graduate majors only. May be repeated for credit.

ART670/67I/672 Sculpture I/2/3 hrs Advanced studio courses in sculpture. Based on background and need of the student. Graduate majors only. May be repeated for credit.

ART679/680/68i Special Topics i/2/3 hrs A graduate-level course in a specific area of art, to be determined by the field of specialization of the instructor and the interest of the student. May be repeated for credit. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
ART690/69I/692 Thesis I/2/3 HRS Completion of research problem, writing thesis and defense of thesis. Offered on a credit/no credit basis.
Prereq: department permission
ART694 Seminar in Art Education 2 hrs Art education seminar involving research to enhance the class lectures and discussion concerning the subject of art's relationship to art education. May be repeated for credit.

## ART695/696 Seminar in Contemporary

 Ideas3 HRS EACH
A two-semester seminar sequence for all master of fine arts degree candidates dealing with indepth questions and problems in contemporary art. Discussions will be supplemented with slides, films and the presentation of papers. May be repeated for credit.
Prereq: department permission
ART697/698/699 Independent Study i/2/3 HRS Advanced study on an individual basis in areas not covered, or not covered in depth, in formal course work. May be repeated for credit.
Prereq: department permission
ART732 Graduate Studio
9 HRS
The third of the four graduate studio courses leading to the M.F.A. degree. Instructor is selected for the student upon his/her acceptance into the program by the department's graduate committee. M.F.A. candidates only. May be repeated for credit.
Prereq: department permission

## ART733 Graduate Thesis and

## Exhibition

8 HRS
A culmination of the three sequential graduate studio courses. The ideas developed in these courses result in a body of work that comprises the graduate exhibition. A written thesis is optional. An oral defense of the ideas presented in the exhibition is required. The University reserves the right to retain work from the graduate exhibition to be added to the EMU collection. A set of 35 mm slides of all the works in the exhibition will be taken by the M.F.A. candidate and will become part of the Art Department's files. M.F.A. candidates only.
Prereq: department permission

## ART734 Oral Defense of M.F.A.

Exhibition
2 HRS
A course conducted by the adviser in each area of concentration. Individual conferences, reading assignments and slides increase understanding of the art context of the candidate's work. M.F.A. candidates only. This course is offered on a credit/no credit basis.
Prereq: department permission

## Astronomy Courses

## ASTRso3 Astronomy I 2 hrs

 A non-mathematical descriptive course in astronomy to acquaint the teacher with the general field of astronomy. Many of the topics considered can be used in the elementary classroom. A study of the sun and its family of planets, as well as the stars and nebulae in the universe beyond the solar system. Naked-eye observations of the constellations and telescopic observations of the moon, planets, double stars and clusters. Not open to students who have credit in ASTR203 or ASTR205.ASTRso4 Astronomy II 2 hrs A nonmathematical descriptive course in astronomy to increase the teacher's acquaintance with the general field of astronomy and the work of the astronomer. Many of the topics covered can be used in the elementary and junior high school classroom; the stellar system; a review of the solar system; and the motions of the Earth. Naked-eye and telescopic observations constitute the laboratory phase of the course.
Prereq: ASTR503 or ASTR203 and ASTR205, or equivalent

ASTR590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.

## ASTR597/598/599 Independent Study/ <br> Research

I/2/3 HRS
An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Athletic Courses

ATHL590/591/592 Special Topics i/2/3 hrs An exploration and study of topics not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

## ATHL597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem under the direction of a University faculty member.
Prereq: department permission
ATHL679/68o/68i Special Topics i/2/3 hrs An exploration and study of topics not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

## ATHL697/698/699 Independent Study

 I/2/3 HRSAdvanced study on an individual basis in areas not covered, or not covered in depth, in formal course work. May be repeated for credit.
Prereq: department permission

## Apparel, Textiles and Merchandising Courses

ATMso4 History of Textiles 2 hrs Study of textiles from ancient times to the 20th century; fibers, fabric construction, dyes, finishes and design of textiles from various world regions; emphasis on the development of American textiles.

ATM587 Cooperative Education 3 hrs Provides practical experience in the student's concentration for four to six months of fulltime employment with an individual employer. May not be used on 30-hour program plan for the master's degree. Offered on a credit/no credit basis. Prereq: department permission

ATM590/591/592 Special Topics i/2/3 hrs An experimental course designed to investigate specific topics of concern in the specialization areas of study. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## ATM597/598/599 Independent Study 1/2/3 HRS <br> An intensive study of a selected professional prob- <br> lem, under the direction of a faculty adviser. <br> Prereq: department permission

ATM6oo Research I 2 hrs
Application of the research process through development of a research project proposal for the culminating experience of the student's graduate program of study. Focus will be on writing chapters $1-3$ of the research project report.
Prereq: DTC500 and EDPS621
ATM607 Colloquium 2 hrs A study of selected topics in textiles, design and merchandising that addresses specific issues and taught in seminar classes. Emphasis is given to the current issues in the business and also presentations of the technical reports.

ATM625 The Fashion Field 2 hrs The nature of fashion, the psychology of fashion, general definitions and background, fashion movements, the fashion centers, fashion trends and the major fashion designers.

## ATM634 Consumer Problems in

Clothing and Textiles
2 HRS Investigation of the sociological, psychological and economic factors involved in the selection and use of textiles and clothing.
Prereq: department permission

ATM635 History of Costume 2 hrs The costume from ancient times to the present day; major characteristics; social, economic and aesthetic influences; recurring styles; influence on present fashion.
Prereq: a course in history

## ATM644 Recent Developments in

 Textiles2 HRS
The nature of textile fibers; economic, chemical and physical problems related to their manufacture and use; technological advances to overcome these problems.

## ATM645 Clothing Design and

Construction 2 hrs Principles of flat pattern design, with application to a variety of styles and fabrics. Special problems in fitting, adaptations of design and processes of construction.
Prereq: department permission
atM6so Research III
I HR
Presentation of culminating experience with emphasis on oral and written methods and skill development. Focus is on research project oral presentation and preparation of a poster presentation and a manuscript.
Prereq: ATM695
ATM667 Fabric Design for the Home 2 hrs Advanced work in experimental design with fabrics, with emphasis on use in the home.
Prereq: department permission
ATM675 Textile Analysis 2 hrs The chemical and physical analysis of fibers, yarns, fabrics and finishes; equipment and techniques used; interpretation of data; presentation of findings to the consumer; textile standards; current textile literature.
Prereq: ATM644 or department permission
ATM679/680/68i Special Topics $1 / 2 / 3$ hrs An experimental course designed to investigate specific topics of concern in the specialization areas of study. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
ATM683 Workshop
2 HRS
This is a fast track intensive learning of special topics in textile and fashion in a workshop environment conducted by faculty. It is intended to enhance knowledge in current developments, techniques and business in ATM.
Prereq: department permission
ATM686/687/688/689 PRACTICUM I/2/3/4 HRS Supervised work experience in field placement/ internship site determined by student and adviser.
Prereq: department permission

## ATM69o Thesis III

I HR
Presentation of thesis research with emphasis on oral and written methods and skill development. Focus is on thesis defense and preparation of a poster presentation and manuscript.
Prereq: ATM692 and department permission

ATM69i Thesis I 2 hrs
Application of the research process through development of a thesis project proposal for the culminating experience of the student's graduate program of study. Focus will be on writing chapters 1-3 of the thesis.
Prereq: DTC500 and EDPS621
ATM692 Thesis II
3 HRS
Execution of a research project and preparation of thesis as the culminating experience for the student's graduate program of study. Focus will be on revising chapters 1-3 and writing chapters 4-5 of the thesis.
Prereq: ATM691 and department permission
atM69s Research II 3 HRS Execution of a research project and preparation of a written report as the culminating experience for the student's graduate program of study. Focus will be on revising chapters 1-3 and writing chapters $4-5$ of the research project report. Prereq: ATM600

## ATM697/698/699 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a selected professional problem, under the direction of a faculty adviser. Prereq: department permission

## Business Education Courses

## BEDUszo Current Issues in Marketing Education <br> 2 HRS

Major contemporary issues in marketing education will be identified, researched and discussed. Potential issues emanating from social, economic and political forces will be addressed. Position and reaction papers will be developed.

## BEDUs24 Microcomputers in Business Education <br> 2 HRS

Hands-on experience using software with applications for classroom management (such as grade records and test banks) and classroom instruction (such as simulation).
Prereq: graduate standing; senior standing (2.5 GPA) with permission of department and Graduate School

## BEDUs25 International Business

 Education2 HRS Study of global factors that influence business education curricula, and an analysis of comparative curricula of several countries. May involve experiences in foreign environment, including attendance at annual ISBE/SIEC conferences.

## BEDU526 Basic Business and Economic Education for Teachers 3 hrs

 This course is designed to prepare teachers for the task of teaching economic education. Topics will include scarcity, choices and incentives, fiscal and monetary policy, competition, role of government, business models and foreign exchange rates.Prereq: six hours of economics or department permission

BEDU542 Information System Security
Overview for Managers
3 HRS Provides a broad overview of threats to security of information systems, responsibilities and tools for information security, emphasis needed in organizations to reach and maintain a state of acceptable security. Included topics include management's role in information security, foundations of information security, privacy, regulatory, legal and policy issues.

## BEDU543 Systems Operating Environment for Information Security Systems Administrators <br> 2 HRS

Discusses specific information security technical defenses including operating system security, network security, infrastructure protection, approaches to protecting against viruses and rogue code, firewalls, identification and authentication, and encryption and public key infrastructure (PKI). Concepts such as quality asurance in an information security environment, antipiracy techniques, security architecture development, internet-facing system security and safeguards for eCommerce are also important parts of this course.

## BEDU544 Administrative Information

## Security Procedures

2 HRS
Development and evaluation of administrative policies and procedures required to administer an information system in a secure environment. Emphasis on writing information security policies that comply with federal information security guides and directives as applicable regulations, business continuity/disaster recovery and incident response plans, developing security awareness programs, and risk management.

## BEDUs46 Vulnerability, Risk and

2 HRS The identification of vulnerabilities and risks inherent in the operation and administration of information systems will be explored. Countermeasures will be discussed and documented in an effort to counter identified vulnerabilities.

## BEDU56o Entrepreneurship

## Education

2 HRS Provides orientation to the entrepreneurial process and development of a philosophical base for teaching. Curriculum and methods appropriate to the participants' school setting are identified. Plans for implementation are designed.

## BEDUs69 Foundations of Business <br> Education

3 HRS
The historical, economic, sociological and psychological foundations of business education. The course focuses on basic business, vocational business and vocational marketing, and the forces, including legislation, that shape instruction and curriculum developments in these areas. In addition to the foundations, students will formulate a professional development plan and a statement of educational philosophy.

## BEDUs87 Cooperative Education in Business Education <br> 3 HRS <br> A cooperative education experience integrating

classroom theory with a paid work experience in an area related to the student's field of study. Work sites must be approved by the coordinator of Cooperative Education and the Business and Technology Education Department. Additional assignments may be required. Offered on a creditno credit basis.
Prereq: department permission
BEDU590/591/592 Special Topics i/2/3 hrs Provides for intensive study of selected topics drawn from current developments in the total field of business education. Not more than six hours of special topics may be used on a degree program.
Prereq: graduate standing or department permission

## BEDU597/598/599 Independent Study

 I/2/3 HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## BEDU607 Colloquium 2 HRS

A series of academic meetings led by a specialist on topics pertinent to graduate students concerning theory and/or practice in career, technical and workforce education.

## BEDU6i4 Advanced Approaches to

 Marketing Education Curriculum and Instruction 2 hrsAdvances in (a) curriculum, (b) methods, (c) DECA, (d) school store and (e) co-op will be evaluated. Plans, procedures and products will be developed for implementation and utilization. Emphasis will be on areas of primary concern to enrollees.

BEDU679/680/68i Special Topics i/2/3 hrs Provides for intensive study of selected topics drawn from current developments in the total field of business education. Not more than six hours of special topics may be used on a degree program.
Prereq: graduate standing or department permission
BEDU682/683 Workshor I/2 hrs
Modern methods, procedures and materials for improving the effectiveness of the classroom teacher in the areas of shorthand, typewriting, bookkeeping and basic business.

BEDU690/691/692 Thesis $\quad 1 / 2 / 3$ HRS Intensive research into a problem in business or marketing education under the direct supervision of a graduate faculty member. Offered on a credit/no-credit basis.
Prereq: department permission

## BEDU697/698/699 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Bilingual-Bicultural Education Courses

BILN590/591/592 Special Topics i/2/3 hrs In-depth study of special areas in bilingual education of interest to practitioners and researchers. Subject matter will change from semester to semester. May be repeated for credit. Not more than six hours of special topics may be used on a degree program.

## BILN597/598/599 Independent Study

 $1 / 2 / 3$ HRSIntensive study of a problem under the direction of a member of the graduate faculty. Not more than six hours of independent study may be used on a degree program.
Prereq: department permission

## Biln6z2 Teaching Hispanic Culture

 and Language3 HRS
The techniques and materials for teaching the language and culture of Hispanic groups within the bilingual classroom. Not open to students on academic probation.
Prereq: a minimum of 24 hours of field experience in a bilingual classroom required

## BilN623 Bilingual Education Public

Policy in the U.S.
3 HRS Study of the principal factors that influence bilingual education public policy formulation in the United States, including federal and state legislation, federal court decisions and the role of the mass media and bilingual communities.

## BILN624 Bilingual Educational

 Theory3 HRS Study of the principal theories that influence the design and implementation of bilingual instruction programs, with special emphasis on language, culture, neurolinguistics and pedagogy.

## BILN625 Bilingual Education Teaching Techniques <br> 3 HRS

This course will acquaint the student with and provide practice in the use of teaching techniques utilized in the teaching of content areas in bilingual classrooms.
Prereq: a minimum of 24 hours of fieldwork required

BILN679/680/68i Special Topics i/2/3 hrs In-depth study of special areas in bilingual education of interest to practitioners and researchers. Subject matter will change from semester to semester. May be repeated for credit. Not more than six hours of special topics may be used on a degree program.

BILN697/698/699 Independent Study i/2/3 HRS Intensive study of a problem under the direction of a member of the graduate faculty. Not more than six hours of independent study may be used on a degree program.
Prereq: department permission

## Biology Courses

BIOLso8 Evolution: Fact and Theory 2 hrs Evidence bearing on the origin and evolution of life and the processes involved is critically examined in this lecture and discussion course. Original term paper on an aspect of recent advances in evolutionary theory required. Counts as a technique course.
Prereq: department permission
BIOLjo9 Statistics for Biologists 3 hrs A course in how and why biologists use statistics. This course emphasizes quantitative thinking about biological problems and introduces statistical tools as necessary to address these problems. As in real research, computers are used for most calculations, freeing humans to concentrate on the interpretation and communication of results.
Prereq: admission to master of science in biology
BIOLsii Biological Aspects of Aging 2 hrs A survey of aging changes at the cellular, tissue and organismal level in plants and animals from protozoa to human. The major theories of aging will be considered. A course in chemistry is recommended. Not open to students with credit in BIOL239. Counts as a technique course.
Prereq: one college level course in biology, botany,
microbiology or zoology at the 100- or 200-level

## BIOLsis Scanning Electron

Microscopy
3 HRS
A lecture-laboratory course that provides the basic theory and practice of scanning electron microscopy. Lectures are coordinated with individualized instruction on laboratory equipment. Students design and conduct an original research project that is presented in both written and oral form at the end of the semester.
Prereq: department permission
BIOLsi8 History of Biology 2 hrs Development of major concepts in biology from the Greek natural philosophers to the present. Counts as a technique course.
Prereq: at least two college courses in biology,
botany, zoology andlor microbiology at the 100-, 200-, 300- or 400-level

BIOL522 Limnology 3 HRS
A lecture, laboratory and field course dealing with physicochemical and biological interrelationships in standing waters. Counts as a technique course.
Prereq: BIOL420; or BIOL310 and BIOL311/524

## BIOLs24 General Ecology 4 hrs

A field and laboratory course introducing the concepts involved in the study of terrestrial and aquatic communities, their physical environment and their integration into ecosystems. Emphasis will be on properties at the ecosystem, community and population levels. An individual student problem will be required. Counts as a technique course.
Prereq: admission to master of science in biology

BIOL525 Conservation 2 hrs
A survey of the natural resources of Michigan; its land, water, minerals, forests, grasslands, wildlife and human resources. Some of the current problems in conservation peculiar to Michigan on the basis of its history, its present resource utilization and its future possibilities. Not open to students with credit in BIOL224.

## BIOL526 Immunobiology 3 hrs

Cellular and molecular responses to immunogens; primary and peripheral immune organs; T-cells and B-cells in cell-mediated and humoral immunity, immune regulation and mechanisms; hypersensitivity; immunity against microbial infectious agents; antigen/ antibody reactions in vitro used in research and diagnostics. CHEM451 is highly recommended. Counts as a technique course.
Prereq: admission to master of science in biology
BIOL527 Immunobiological Methods i hr An individualized laboratory course on antibody production with available antigens; immunodiffusional and immunoelectrophoretic analysis of antigens and their components with available sera; immunobiological research projects of student's choice. Must be taken concurrently with BIOL526. CHEM452 is highly recommended. Counts as a technique course.
Prereq: BIOL526 (if taken concurrently, students must register for BIOL526 first)

BIOL535 Wetland Ecosystems 3 hrs Advanced field ecology course in the theory and methods of study of wetland ecosystems. Counts as a technique course.
Prereq: BIOL420; or BIOL310 and BIOL311/524
BIOL536 Terrestrial Ecosystems 3 hrs Advanced field ecology course in the theory and methods of study of the structure and dynamics of terrestrial ecosystems. Counts as a technique course. Prereq: BIOL420; or BIOL310 and BIOL311; or BIOL524

## BIOL540 Cell Biology <br> 3 HRS

A lecture course covering the structure and function of the nuclear and cytoplasmic components of the cell. Counts as a technique course.
Prereq: admission to master of science in biology

## BIOL542 Molecular Genetics 3 hrs

 A follow-up to introductory genetics. Concentrates on the molecular aspects of the subject. The properties of genetical material at the molecular level. Counts as a technique course.Prereq: admission to master of science in biology
BIOL543 Developmental Biology 3 hrs A course on the molecular aspects of early development, cytodifferentiation, cell communication, morphogenesis, pattern formation and developmental genetics.
Prereq: admission to master of science in biology

## BIOLs44 Tissue Culture Techniques and

 Methods2 HRS
A course on the techniques and methodologies employed in plant and animal cell culture. An
introduction to theory and practice which facilitates students' ability to develop and use in vitro systems. Counts as a technique course.
Prereq: department permission
BIOL545 Recombinant DNA TechniQues 3 hrs A laboratory course that introduces students to basic bacterial molecular biology, gene cloning, DNA sequencing and DNA sequence analysis.

## BIOLsji Bioinformatics I

3 HRS
Bioinformatics is an emerging field that comprises the intersection of biology, mathematics and computer science to address biological and medical research problems. This course is an introduction to bioinformatics, which includes a survey of existing public databases and strategies for applying bioinformatics techniques to a variety of biological research problems. Completion of an introductory biology course is assumed.

## BIOL552 Bioinformatics II 3 Hrs

This advanced course in bioinformatics will cover the range of bioinformatics research using a problem-based approach. The class will consist of a combined lecture-computer laboratory format to provide hands-on experience in applying bioinformatics to a variety of research problems, including genomic analysis, DNA microarray analysis, phylogenetics, three-dimensional structure prediction and proteomics.
Prereq: BIOL551 and instructor permission

## BIOL587 Cooperative Education in

 Biology3 HRS
Four to six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in biology or technology. The program consists of work experience alternating with full-time attendance at the University. Admittance to program by application only. Offered on a credit/ no-credit basis.
Prereq: department permission
BIOL590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
BIOLj93 Seminar in Biology i hr Presentation of special reports and group discussions of selected topics. Offered on a creditno credit basis. Counts as a technique course.
Prereq: admission to Masters of Science in Biology

## BIOL594/595/596 Workshop in Biology

 $1 / 2 / 3$ HRSWorkshops will be offered dealing with selected areas. Workshops emphasize student participation and are designed to offer practical experience and training, and theoretical study. Topics to be announced. (See current campus and Continuing Education bulletins.)

## BIOL597/598/599 Independent Study

 1/2/3 HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission
BIOL679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## BIOL682/683/684 Workshop in Advanced

 Biology1/2/3 HRS Workshops will be offered dealing with selected areas. Workshops emphasize student participation and are designed to offer practical experience and training, and theoretical study. Topics to be announced. (See current campus and Continuing Education bulletins.)

## BIOL686/687/688 Practicum in Biology I/2/3 HRS

Practical experience in a particular field study, with each student responsible for the experimental design and the collection, analysis and interpretation of field data for a specific area within a broader problem under group investigation.
Prereq: department permission

## BIOL689 Internship in Community

## College Biology Teaching <br> 3 HRS

 An intensive internship experience consisting of supervised participation in teaching biology at the community college level. The intern will participate in all department and professional activities at a community college and will conduct specific courses. Offered on a credit/nocredit basis.Prereq: department permission
BIOL690/69I/692 Thesis I/2/3 HRS Intensive research into a biological problem, under the guidance and supervision of a graduate faculty member in the Department of Biology, and the preparation of a thesis consistent in substance and form with the standards of the discipline. Offered on a credit/no-credit basis.
Preveq: department permission

## BIOL696 Seminar: Laboratory

## Instruction

I HR
Analysis and discussion of the special problems of laboratory instruction in biology in college. Offered on a credittno-credit basis.
Prereq: appointment to a graduate assistantship

## BIOL697/698/699 Independent Study

 1/2/3 HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Botany Courses

BOTNsoz Plants and Nature 2 hrs Plants in their natural environment; identification and classification of local flowering plants, use of hand-lens and plant manuals, and methods of collection and preservation. Major plant groups and their climatic and geographic significance.

BOTN530 Plant Products in Industry 2 hrs The various ways in which plants and plant products are utilized in modern industry; plants and the source of technical raw materials; the dependence of man upon the plant kingdom. Not open to students who have credit in BOTN215.

## BOTN 540 Plant Morphology of Algae

 and Fungi4 HRS
A lecture and laboratory course on comparative morphology of the algae (freshwater and marine) and the fungi. A study of the structure and life cycles of representative organisms with emphasis on the relationship of morphology to reproduction, environmental adjustment, classification and evolution.
Prereq: admission to master of science in biology

## BOTN54I Morphology of Mosses

through the Vascular Plants 4 hrs A lecture and laboratory course on comparative morphology of the mosses, liverworts, ferns and other vascular plants. A study of the structure and life cycles of representative forms with emphasis on the relationship of morphology to reproduction, environmental adjustment, classification and evolution.
Prereq: admission to master of science in biology

## BOTN5so Systematic Botany 3 hrs

 A lecture, laboratory and field course addressing the principles of plant systematics and taxonomy and techniques of obtaining and analyzing data used in systematics. Major plant groups will be studied by collection, preservation and identification of specimens. Not open to students who hold credit in BOTN455. Counts as a taxonomic field course.Prereq: admission to master of science in biology

## BOTNsji Freshwater Algae

3 HRS
A survey of the freshwater algal divisions; their morphology, taxonomy, ecology and economic importance. Lectures will emphasize an evolutionary approach. Laboratory work will stress the identification of representative algal taxa. A class field study will be required. Counts as a taxonomic field course.
Prereq: admission to master of science in biology

## bOTN5s2 Aquatic Plants

3 HRS
Analysis of vascular aquatic and wetland plants and habitats. Lectures stress physical and biological habitat features and plant adaptations. Laboratories stress identification of aquatic and wetland species. Counts as a taxonomic field course. Prereq: admission to master of science in biology

BOTN554 Trees and Shrubs 3 hrs A taxonomic field course on identification of native trees and shrubs in winter and spring condition. Counts as a taxonomic field course.
Prereq: admission to master of science in biology or BIOL205

BOTN $590 / 591 / 592$ Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## BOTN $944 / 595 / 596$ Workshop in Botany I/2/3 HRS

Workshops will be offered dealing with selected areas. Work shops emphasize student participation and are designed to offer practical experience and training, and theoretical study. Topics to be announced. (See current campus and Continuing Education bulletins.)

## BOTN597/598/599 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a faculty member.
Prereq: department permission
BOTN64o Plant Cell Physiology 2 hrs Selected topics on recent advances in molecular botany. Counts as a technique course.
Prereq: admission to master of science in biology
BOTN679/680/68I Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## BOTN697/698/699 Independent Study

 I $/ 2 / 3$ HRSAn intensive study of a problem or group of problems under the direction of a faculty member.
Prereq: department permission

## Business and Technology Education Courses

## BTEDs68 Coordination of Cooperative

 Education Programs 2 hrs Analyzes the duties and responsibilities of the cooperative education coordinator. Focus on human and public relations, related instruction and program development. Required of all potential coordinators. Recommended for school administrators and vocational teacher education students.BTED $590 / 591 / 592$ Special Topics i/2/3 hrs Provides for intensive study of selected topics drawn from current developments in the total field of business and technology education. Not more than six hours of special topics may be used on a degree program.
Prereq: graduate standing or department permission

## BTED597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## BTED6ir Curriculum Frameworks in Career, Technical and Workforce Education <br> 3 HRS

The course emphasizes the social, political and economic factors influencing design and revision of curriculum in career, technical and workforce education. Advantages and disadvantages of curriculum in special programs such as Tech Prep and School-to-Work, as they impact technological literacy in the workplace, are addressed.

## BTED66i Evaluation Standards and

Strategies in Career, Technical and Workforce Education 3 hrs The course is concerned with standards and strategies of student and program evaluation as they relate to assessing technological literacy in career, technical and workforce education. The challenges inherent in evaluating special programs such as Tech Prep and School-to-Work will be addressed.

## BTED66s Trends and Administration in Career, Technical and Workforce Education <br> 3 HRS

The course will focus on changes in career, technical and workforce education affecting business and technology education programs. Issues will include the areas of legislation, recruitment, employment, curriculum, administration and funding.

## BTED678 Research in Business and

Technology Education 3 hrs A review of basic research techniques applied to business, marketing and technology education areas. Studies are analyzed in light of research processes and conclusions. Students become involved in the design and application of research methodology to projects appropriate to classrooms.

## BTED693/695/696 Professional Seminar in Business and Technology Education $\quad 1 / 3 / 4$ hrs

 This course provides a culminating experience for students completing the master's degree in business or technology education. It will include discussion and experiential activities that encourage students to apply academic achievements to functional professional situations. Prereq: BEDU542 and BEDU543, or department permission
## BTED694 Professional Seminar in

Information Assurance 2 hrs
This course provides culminating experience for students completing their master's degrees in interdisciplinary technology with a concentration in information security, as well as those completing their graduate certificates in information security. For the graduate certificate in information assurance, the student's research project will constitute a specialization on the MLS with a concentration in Information Assurance.
Prereq: BEDU542 and BEDU543 and department permission.

## BTED697/698/699 Independent Study $\mathrm{I} / 2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Computer Aided Engineering Courses

CAE535 3-D CAD Modeling 2 hrs Developing 3-D product models using solid modeling and parametric CAD software. Emphasis on interpretation of product specifications and development of solid models and surface models.

CAEs65 Mechanical System Design 2 hrs A study of mechanical system design. Emphasis on integrating strength of materials, failure theories, kinematics, mechanisms, component analysis and design, and product analysis to develop functional and safe mechanical systems.
Prereq: 325 or equivalent and CAE535

## CAE585 Advanced Finite Element

 Analysis2 HRS
The study of the application aspects of employing FEA as a significant aid in the design and analysis processes. Topics will center on the practical considerations associated with the use of FEA packages in heat transfer, stress and strain analysis and vibration analysis.
Prereq: 435 or equivalent.
CAE590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## CAEs97/598/599 Independent Study I/2/3 HRS

Opportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "independent study" and "research proposal Format" guideline sheets are available from the department.
Prereq: department permission

## CAE65o Computer-Aided

Manufacturing
2 HRS
The use of the computer in planning manufacturing operations, solving manufacturing and related problems, and controlling manufacturing processes for batch and continuous production.

CAE675 CAD/CAM/CNC
2 HRS
An integration of various aspects of product and project design and manufacturing. Emphasis on geometry modeling, mechanical design, GD, FEA analysis, manufacturing processes and CNC programming for developing a project. Prereq: CAE535 or equivalent and CAE585

CAE679/680/68I Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
CAE684 Workshop
3 HRS
Students will be provided practical and theoretical study in a selected topic area. Offered on a credit/no-credit basis.
Prereq: department permission
CAE689 Industrial Internship 2 hrs A field study of industrial theory and practice through internship experiences with cooperating industries. Designed for students desiring experiences beyond those obtained in their previous or present employment. Offered on a credit/no-credit basis.

## CAE690/691/692 Development Project/ Thesis <br> I/2/3 HRS

 A theory application project conducted under the supervision of an adviser and departmental graduate committee.Prereq: department permission and 12 hours in one's graduate concentration

CAE693/694/695 Seminar I/2/3 HRS
A research-oriented course for graduate majors.
Prereq: department permission

## CAE697/698/699 Independent Study

 1/2/3 HRSOpportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "independent study" and "research proposal format" guideline sheets are available from the department.
Prereq: department permission

## College of Arts and Sciences Courses

## CASIGgo Current Challenges in <br> Bioinformatics Seminar

3 HRS This course provides an opportunity for students to work in teams on real-life problems of bioinformatics. Students will apply their teambuilding skills to solve problems provided by biotechnology and pharmaceutical companies. This course is specifically designed for students enrolled in the Professional Master's in Bioinformatics Program.
Prereq: department permission
CASI68o Internship in Bioinformatics 3 hrs This course provides an introduction to applied bioinformatics in a professional, for-profit environment. Students have an opportunity to apply their technical, communication and teambuilding skills in biotechnology and pharmaceutical companies of all sizes. This course is specifically designed for students enrolled in the Professional Master's in Bioinformatics Program.
Prereq: department permission

## Chemistry Courses

## CHEMsio Computer Applications in

 Сhemistry2 HRS
A course in computer programming. The emphasis is on the application of computer-based numerical methods to the solution of complex chemical problems.
Prereq: senior or graduate standing in chemistry;
no prior background in computer programming is necessary

## CHEMsis Industrial and Environmental

 Chemistry3 HRS A three-part course covering selected aspects of industrial organic chemistry, industrial inorganic chemistry and environmental chemistry. Environmental problems most closely associated with the production aspects of industrial chemistry will be discussed.
Prereq: one year of organic chemistry; one course in inorganic chemistry; one course in physical chemistry

CHEM553 Enzymology 2 hrs A lecture course covering the nomenclature, kinetics, mechanism and regulation of enzymes.
Prereq: CHEM451 or equivalent

## CHEM55s Neurochemistry 3 hrs

 Discussion of the biochemistry of the nervous system covering the synthesis, distribution, mechanism of function and degradation of compounds involved in neural function (including neurotransmitters, neurohormones, brain sphingolipids, steroids and prostaglandins). Mental diseases with a known biochemical basis and the rationale for drug therapy are described.Prereq: CHEM452 or equivalent

## CHEM56i Quantum Chemistry and

 Spectroscopy 2 hrsA study of atomic and molecular structure and spectroscopy based on quantum chemistry.
Prereq: CHEM465 or equivalent

## CHEM562 Statistical Mechanics and

Chemical Kinetics
2 HRS
Introduction to the principles of statistical mechanics, the connection between the microscopic world and classical thermodynamics, and modern theories of chemical reaction rates.
Prereq: CHEM465 or equivalent

## CHEM564 Physical-Chemical

Characterization of Polymers 2 hrs Physical methods of polymer characterization, including molecular weight determination, size fractionation, thermal analysis, degradation, depolymerization and reaction kinetics. Laboratory: six hours per week.
Prereq: CHEM463 and CHEM475, or equivalent
CHEM565 Nuclear Chemistry 3 hrs
The course will cover topics such as radioactive decay, decay systematics, nuclear models and nuclear reactions. Applications of radioactivity to chemical problems will be discussed. Techniques of nuclear chemistry, nuclear processes as chemical probes and other such topics will be covered. A discussion of the preparation and properties of transplutonium elements will be included.
Prereq: one year of college chemistry; one course in physical chemistry or modern physics

## CHEMs7I Advanced Organic

## Chemistry 3 Hrs

A lecture course devoted to developing a deeper understanding of the structure of organic compounds and the mechanism of organic reactions. The structural aspects of bonding, stereochemistry and conformation will be extended beyond the introductory level prior to considering mechanistic studies on several fundamental reaction types.
Prereq: one year of organic chemistry

## CHEM572 Spectrometric Organic

Structure Determination 4 hrs
The use of infrared, Raman, ultraviolet, mass and nuclear magnetic resonance spectroscopy in organic structure determination will be discussed. Emphasizes problem-solving and practical applications.
Prereq: CHEM372 or equivalent

## CHEM574 Advanced Organic Chemistry

 Topics2 HRS
Two or three advanced topics are treated in depth. The topics selected will vary from offering to offering and could include such examples as: stereochemistry and conformational analysis, natural product chemistry, heterocyclic compounds, orbital symmetry rule and applications, and photochemistry.
Prereq: CHEM372 or equivalent

## CHEM58i Advanced Analytical

Chemistry 3 HRS
Practical applications of modern chemical analysis using instrumental methods, which may include optical, x-ray and nuclear spectroscopy, mass spectrometry, and separations.
Prereq: CHEM463 and either CHEM361,
CHEM461 or CHEM481
CHEM590/591/592 Special Topics $1 / 2 / 3$ hrs An in-depth study of a specialized area of chemistry. Not offered on a regular basis. Not more than six hours of special topics may be used on a degree program.
Prereq: graduate standing

## CHEM597/598/599 Independent Study

 I/2/3 HRSAdvanced study on an individual basis in areas not covered, or not covered in depth, in formal course work.
Prereq: department permission

## CHEM6io Information Retrieval in

 ChemistryI HR A course designed primarily to provide M.S. candidates with a proficiency in locating chemical information by independent study. Exercises are relevant to research, and involve both manual and computerized information retrieval.
Prereq: graduate standing

## CHEM632 Structural Inorganic

 Chemistry3 HRS
Physical and chemical methods for determining structures of inorganic substances and the relationship between structure and descriptive chemistry will be discussed.
Prereq: one year of physical chemistry and one course in advanced inorganic chemistry

## CHEM655 Advanced Biochemistry

 Topics2 HRS
Specialized areas of biochemistry are discussed in depth, with an emphasis on recent research developments.
Prereq: CHEM452 or equivalent

## CHEM665 Physical Chemistry of

 Polymers 2 hrs Thermodynamics and kinetics of step-growth and chain-growth polymerizations, the configuration and conformation of polymers, the properties of polymer solutions and phase equilibria, including crystallinity and molecular weight determination.Prereq: CHEM465 and CHEM475, or equivalent

## CHEM675 Advanced Organic Polymer <br> Chemistry <br> 3 HRS

The reactions used to form specialty polymers including polyaromatic heterocycles and metalcontaining polymeric systems in semiconducting materials; the use of phosphazines and siloxanes and the development of new monomer systems; composites and polymer blends in multiphase systems; polymers and polymeric materials in electronics and medicine.
Prereq: CHEM361, CHEM372 and CHEM373, or equivalent

CHEM679/680/68i Special Topics i/2/3 hrs
An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Does not count toward M.S. in chemistry. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## CHEM693 Seminar in Chemistry i hr

 Discussion of specific topics in chemistry by graduate students. Emphasis will be placed on the improvement of oral communication techniques for presentation of scientific material.Prereq: department permission

## CHEM697/698/699 Research in

## Chemistry

I/2/3 HRS
The student performs original research under faculty direction. Repeat enrollment is allowed. Thesis is submitted after completion of six to 10 hours of research in chemistry. Offered on a credit/no-credit basis.
Prereq: department permission

## School of Health Sciences Courses

## CLRAsio Introduction to Drug Development

3 HRS Introduction to the pharmaceutical industry and the process of drug development. Drug Development Phases 1-4 are discussed. Regulatory requirements of the Food and Drug Administration are reviewed along with the content of the Investigational New Drug Application (IND), the New Drug Application (NDA) and the Marketing Authorization Application (international). The roles of investigator, coordinator, sponsor and monitor are discussed. Exposure to the skills necessary to function as a successful study monitor is given.

## CLRAszo Clinical Study

Administration I
3 HRS
Provides an overview of the development, content and process of the clinical research study. Topics include protocols, case report forms, investigator brochures, informed consent, institutional review boards and Statement of Investigator Form 1572.
Prereq: CLRA510 or permission of the instructor

## CLRA530 Clinical Study

Administration II
3 HRS
Course builds on the content of CLRA520 and expands upon the processes involved in study management. Topics include source document verification, visit types, drug accountability, adverse events, laboratory and supplies.
Prereq: CLRA520 or permission of the instructor

CLRAs4o Advanced Topics in Clinical
Study Management 3 hrs
Capstone experience utilizes the background material presented in CLRA510/530 to integrate all of the components of a clinical research program and how they relate to the completed submission of a document to the U.S. Food and Drug Administration.
Prereq: CLRA530 or permission of the instructor
CLRAsso Preceptorship in Drug Development

3 HRS
The preceptorship is a three-month-long, fulltime experience which occurs both in a clinical setting (one month) and a clinical research organization setting (two months). Students interact with clinical research associates, clinical research coordinators and clinical scientists in a workplace setting to develop and polish clinical research coordinating and monitoring skills.
Prereq: completion of CLRA510, CLRA520,
CLRA530 and CLRA540, with 3.0 grade point average

## CLRA56i Legal Issues in Drug

## Development 2 hrs

This course will prepare Clinical Research Administrators and others who may be involved in the drug development process in the fundamentals of the patent process and the function of the governmental agencies which supervise the process. Other issues which relate to technology transfer and licensing will also be discussed. Prereq: CLRA510

## CLRAsfi Grant and Contract

Management for Research Project Administrators

3 HRS This course will prepare future Clinical Research Administrators, and others involved in research administration, in the fundamentals of pre- and post-award management of research projects. Emphasis is given to understanding the terms and conditions of contracts and grant award documents, and to management issues involved in forming and managing sub-contractural relationships.

## CLRAs8i Regulatory Affairs in Drug

## Development

2 HRS
This course will prepare future Clinical Research Administrators, and others involved in research administration, in the fundamentals of the government regulatory process and the function of the governmental agencies which supervise the process. Primary focus will be on regulatory requirements in the United States, but both international harmonization, devices and biologics will also be discussed.
Prereq: CLRA510
CLRA590/591/592 Special Topics i/2/3 hrs Advanced-level courses covering specific topics in associated health professions. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

CLRA597/598/599 Independent Study I/2/3 HRS
Independent original endeavors under the guidance of an associated health professions faculty member.
Prereq: department permission

## CLRA6or Graduate Seminar in Drug

 DevelopmentI HR
Presentation of special reports and group discussions of selected topics in clinical research.
Prereq: graduate status or permission of instructor for senior undergraduates.

CLRA690/69I/692 Thesis I/2/3 HRS Intensive research into a problem under the guidance and supervision of a graduate faculty member of the Clinical Research Administration Program, and the preparation of a thesis consistent, in substance and form with the standards of the discipline. Offered on a credit/ no-credit basis.
Prereq: department permission

## CLRA695 Special Project in Clinical

Research Administration 3 hrs
Conduct of an individualized special project under the guidance and supervision of the Program Coordinator. The student will prepare a research paper and present the results in a formal seminar to the faculty and students in the Clinical Research Administration Program. Offered on a credit/no-credit basis.
Prereq: CLRA530 or instructor permission

## Clinical Laboratory Science Courses

## CLSCsoi Fundamentals of

Epidemiology 3 hrs
Lecture and discussion course of epidemiological measurements, applications, study design, disease risk assessment and interpretation. Epidemiology is the basic science of disease prevention and plays a major role in the development and evaluation of public policy. Risk factors for disease mechanisms involved in pathogenesis will be discussed.
Prereq: MATH105 or equivalent; MATH170 or SOCL250 or waiver

CLSC590/591/592 Special Topics i/2/3 hrs Advanced-level courses covering specific topics in clinical laboratory sciences. Not more than six hours of special topics may be used on a degree program.
Prereq: permission of instructor

## CLSC597/598/599 Independent Study

 $1 / 2 / 3$ HRSIndependent original endeavors involving library and/or laboratory work under the guidance of a clinical laboratory sciences program faculty member.
Prereq: permission of instructor

CLSC679/680/68i Special Topics i/2/3 hrs Advanced-level courses covering specific topics in clinical laboratory sciences. Not more than six hours of special topics may be used on a degree program.
Prereq: permission of instructor

## CLSC697/698/699 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Construction Management Courses

CNSTsoi Project Estimating 2 hrs An investigation into the estimating and bidding practices used within the construction industry in order to prepare, analyze and submit an estimate of the costs for a project.
Prereq: CNST304 or equivalent
CNSTjo2 Project Scheduling 2 hrs An investigation into advanced scheduling techniques and the application of these within the construction industry.
Prereq: CNST361 and CNST304, or equivalents

## CNSTsoz Construction Delays and Claims <br> 2 HRS

 An investigation into the risks, liabilities and responsibilities involved in today's construction industry. The areas of liability, contract interpretation, changes, changed conditions, delays, damages, documentation and dispute resolution are addressed.Prereq: CNST 406 or equivalent
CNSTso4 Project Management 2 hrs An investigation of the typical problems associated with construction projects and applicable management practices for solving managerial problems.

CNST $590 / 591 / 592$ Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## CNST597/598/599 Independent Study I/2/3 HRS

Opportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "independent study" and "research proposal format" guideline sheets are available from the department.
Prereq: department permission

## CNST6i6 Analysis of Commercial

 Structures 3 hrs An investigation into the construction industry practices associated with the use of working drawings to analyze project requirements for bidding, planning, scheduling and controlling construction projects.Prereq: CNST361 and CNST304, or equivalents

## CNST624 Рroject Productivity and

## Cost Control

3 HRS
An investigation into the contemporary problems related to construction productivity, and methods to be employed to control construction costs.
Prereq: CNST403 or equivalent
CNST626 Construction Processes 2 hrs An investigation of the accepted and standard practices associated with the construction process.

## CNST645 Occupational Safety and

Health
2 HRS An exploration of occupational safety and health from a human behavior perspective. Attention will be given to the development of safety management systems. Legislative safety and health policies will be analyzed to determine their effectiveness.

## CNST648 Principles of Construction

Technology 2 hrs
A study of the production system of the construction industries, utility systems, housing construction and city and regional planning practices.

CNST679/680/68i Special Topicsi/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
CNST682/683/684/685 Wогкshop $1 / 2 / 3 / 4$ HRS Students will be provided practical and theoretical study in a selected topic area. Offered on a creditno-credit basis.
Prereq: department permission
CNST689 Industrial Internship 2 hrs A field study of industrial theory and practice through internship experiences with cooperating industries. Designed for students desiring experiences beyond those obtained in their previous or present employment. Offered on a creditno-credit basis.

## CNST690/691/692 Development Project/ Thesis I/2/3 HRS

 A theory application project conducted under the supervision of an adviser and departmental graduate committee.Prereq: department permission and 12 hours in onés graduate concentration

CNST693/694/695 Seminar I/2/3 HRS
A research-oriented course for graduate majors. Prereq: department permission

## CNST697/698/699 Independent Study

 1/2/3 HRSOpportunities are provided for the selection and completion of an individual study under the direction of a University faculty member.
An approved written proposal is required. Both
"independent study" and "research proposal format" guideline sheets are available from the department.
Prereq: department permission

## College of Business Courses

COB $590 / 591 / 592$ Special Topics $1 / 2 / 3$ hrs Course covers selected topics from the field of business. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## COB597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission
COB679/680/68i Special Topics i/2/3 hrs Course covers selected topics from the field of business. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
COB695 Seminar
3 HRS
A study of selected business issues and methods. Specific topics will vary from semester to semester.
Prereq: department permission
COB697/698/699 Independent Study I/2/3 HRS
An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Computer Science Courses

## COSCso6 Methods of Teaching Computer Science in the Secondary School <br> 3 HRS

This course encompasses information and materials needed to prepare students for the teaching of computer science in grades seven through 12 . Topics include curricular development, course content, laboratory arrangement, pedagogical methods, security and maintenance of equipment, software selection and evaluation and copyright considerations. In addition, the course presents approaches for dealing with diversity of student abilities and backgrounds, techniques and strategies for teaching problem-solving, al-
gorithm development and program debugging. Time will be spent fitting previous teaching experiences and backgrounds into the computer science class and laboratory environments.
Prereq: COSC515 or both COSC311 and COSC221

## COSCsii Design and Analysis of

 Algorithms3 HRS
Complexity measures of algorithms; searching, sorting, string matching and graph algorithms; design and analysis of greedy algorithms, backtracking, divide and conquer approach, dynamic programming; NP-complete and NPhard problems are studied.
Prereq: ADM or COSC314, COSC311, and MATH121

## COSCsiz Formal Methods in Software Development <br> 3 HRS

Principles of logical reasoning and their application to the development of reliable software, propositional and predicate logic, mathematical induction, semantics of control and data structures are studied. Examples are drawn from various applications areas. Emphasis is on the use of formal methods as practical tools that aid in software development.
Prereq: ADM or COSC314, COSC311, and MATH121

## COSCsi4 Fundamentals of Computer <br> Science I

4 HRS
An accelerated course covering the content of COSC211 Programming Data Structures and COSC311 Data Structures. Includes structured programming, recursion, topics in data structures and an introduction to algorithm analysis.
No credit for COSC311 or its equivalent.
Prereq: COSC111 or equivalent

## COSCsis Fundamentals of Computer

## Science II

4 HRS An accelerated treatment of topics from COSC221 Computer Organization I and COSC321 Computer Organization II. Topics include: machine language and arithmetic; assembly language programming; implementation of high-level run time structures; structure of assemblers, loaders, and command interpreters. Logic design and computer architecture. No credit for COSC221, COSC321 or their equivalent.
Prereq: COSC514 or department permission

## COSCs22 Computer Communication

Networks and Distributed Systems

3 HRS
A study of networks of interacting computers. Topics covered: principles of data communication; major national and international protocols; models for network design and analysis; local and long-haul networks; distributed processing, distributed databases and distributed operating systems. A laboratory project involving a network of microcomputer systems is included.
Prereq: ADM or COSC314, COSC311, and COSC321

## COSCs23 Advanced Computer

 Organization3 HRS Processor design, fixed and floating point arithmetic processing and non-arithmetic processing are studied. Topics covered: control design and microprogramming; memory organization and input-output; system organization. Case studies will be drawn from computer systems designed to make special types of processing more efficient: stack computers, pipelined processors and vector computer multiprocessing.
Prereq: ADM or both COSC311 and COSC321

## COSCs27 Wireless Networking

Principles
3 HRS
This course involves the study of wireless communication technologies and standards. Communication issues such as frequency reuse, signal coding, error control coding, and spread spectrum technology as well as technologies including cellular telephony, personal communications systems, and wireless local area networks and international wireless standards will be discussed.
Prereq: MATH120 and COSC439 or COSC522

## COSC54i Automata, Computability and Formal Languages <br> 3 HRS

A survey of the principal mathematical models of computation and formal languages. Finite automata, regular languages and sets, the Chomsky hierarchy, context-free languages, computability and undecidable problems, computational complexity and NP-completeness are studied.
Prereq: ADM or COSC314 and COSC311
COSC544 Programming in LISP i hr Introduction to the LISP language with emphasis on artificial intelligence applications. Pure LISP, built-in and user-defined functions, PROG feature, MAP-functionals and property lists.
Prereq: ADM or COSC311 or COSC514
COSC545 Programming in Prolog i hr An introduction to one of the most widely used languages of artificial intelligence. Topics include Prolog's inference procedure, assertions of facts and rules, recursion, list structures, functors, the cut, numerical operations and principles of good Prolog style.
Prereq: ADM or COSC311 or COSC514

## COSC552 Human-Computer

 Interaction3 HRS Methods for modeling, designing, implementing and evaluating dialogues between people and computer systems, taking into account modern interface technologies, human limitations and tradeoffs between competing design objectives.
Prereq: ADP or COSC 444 or COSC541

## COSC556 Advanced Computer

## Graphics

3 HRS
Topics covered: mathematics for 3-D graphics; polygon clipping; polygon filling; modeling methods; 3-D transformations; parallel and perspective projections; hidden line and hidden surface removal algorithms; shading and color models.
Prereq: ADM or COSC311, MATH120, and
MATH122

COSC56i Artificial Intelligence 3 hrs This course introduces the student to basic concepts and techniques of artificial intelligence. Topics covered: strategies for choosing representations, notational systems and structures; search strategies; control issues; examples of current systems in natural language processing, pattern recognition, problem-solving, learning and information retrieval. Students with no prior knowledge of LISP should take COSC544 concurrently.
Prereq: ADP or COSC444 or COSC541

## COSC57i Database Management Systems Design <br> 3 HRS <br> Topics covered: file and data organization tech-

 niques; the hierarchical, network and relational data models with examples; query facilities; data normalization; security and integrity; design and implementation of a simple DBMS system. Prereq: ADP or COSC341, COSC321, and either COSC444 or COSC541
## COSC576 Computational Tools in Bioinformatics

3 HRS
An introduction to tools for programming and data management commonly used in bioinformatics. Topics include Perl programming, bioinformatics programming libraries for Perl and Java, web and data markup languages and database technology (database design and queries).
Prereq: COSC514 or COSC311

## COSC58i Software Design and

 Development3 HRS
Software engineering techniques for the organization, management and development of a large software project are studied, including specification, structured design, segmentation and documentation.
Prereq: ADP or COSC341 and either COSC444 or COSC541

COSC582 Object-Oriented Design 3 hrs This course covers the analysis and design aspects of a software development process from an object-oriented perspective. The Unified Software Development Process along with the Unified Modeling Language (UML) will be used for modeling software systems. Requirements gathering and planning activities will be dealt with only from a modeling perspective.
Prereq: COSC481 or COSC581
COSC590/59I/592 Special Topics i/2/3 hrs A graduate-level course in a specific area of computer science to be determined by the field of specialization of the instructor and the interest of the students. Not more than six hours of special topics may be used on a degree program. Prereq: Six hours of graduate computer science courses and department permission

## COSC597/598/599 Independent Study

 I/2/3 HRSAn intensive study of a problem or implementation of a project under the direction of a member of the computer science faculty. Prereq: Six hours of graduate computer science courses and department permission

COSC6i2 Parallel Algorithms 3 hrs A course in design and analysis of algorithms for parallel programming. Sorting, searching, matrix multiplication, graph theory and other fundamental areas of computation are considered for parallel program design.
Prereq: COSC511

## COSC6i6 Algorithms in

Bioinformatics
3 HRS
Coverage of fundamental algorithmic techniques used to solve problems in bioinformatics, relating to DNA sequences, microarrays and evolutionary computations. Also, covers intractability of biological problems, and techniques to deal with intractability.
Prereq: COSC511, COSC513, COSC541 or COSC576

COSC623 Advanced Operating Systems 3 hrs Selected topics from areas such as concurrent processing, memory management, resource allocation and scheduling, multiprocessing and multiprogramming, protection, performance evaluation and modeling will be covered in depth.
Prereq: UGM or COSC314 and COSC423
COSC625 Real Time Processing 3 hrs An introduction to the problems, concepts and techniques involved in computer systems that must interface with external devices; computer characteristics needed for real time use, operating system considerations, analog signal processing and conversion, and inter-computer communication. Students will be involved in several laboratory projects involving a mini- or microcomputer system.
Prereq: UGM or COSC423 and either
COSC422 or COSC523

## COSC63i eСommerce and Web Database Infrastructure <br> 3 HRS

 This course involves the study of the technical details necessary for building electronic commerce systems and web databases. Such technical details include the operating system, web and database servers, client/server communications, security issues, audit trails, payment systems and modern web application programming languages.Prereq: COSC436 or COSC439 or COSC471 or COSC522 or COSC571

## COSC645 Advanced Compiler

## Construction

3 HRS
An introduction to the major methods of compiler implementation. These include: lexical analysis, LL and LR parsing, semantic analysis and code generation, error detection and recovery, and code optimization. Compiler engineering techniques including portability, validation and the use of automated compiler-writing tools are also studied. Course project will involve implementation of a compiler.
Prereq: COSC445 and COSC541

## COSC653 Software Requirements

## Engineering

3 HRS This course teaches the student how to determine clients' software needs, formally specify operations and data, quantitatively assess risks
involved in a software project, estimate resources necessary to create software, coordinate a requirements team, measure and evaluate requirements documents, and investigate current research issues in this field.
Prereq: COSC481 or COSC581
COSC66I Automated Reasoning 3 hrs A theoretical and practical survey of different reasoning techniques, both classical and nonclassical, and methods for implementing them as computer programs. Topics will include resolution proofs, fuzzy logic, non-monotonic reasoning, default reasoning and uncertainty measures. Applications will include expert systems.
Prereq: COSC561 or COSC461

## COSC662 Seminar in Artificial

## Intelligence

I HR
A graduate-level seminar in specialized concentration areas.
Prereq: 8 hours of graduate computer science
courses and department permission

## COSC663 Fuzzy Logic and Design of

 Fuzzy Systems3 HRS
An applied and theoretical treatment of fuzzy logic concepts. Discrete and continuous representations of fuzzy sets and fuzzy operations. Types of fuzzy reasoning, their computational and logic consistency, and stability in fuzzy systems. Design of fuzzy systems in a variety of case studies such as controllers, traffic simulations, pattern recognition.
Prereqs: COSC511 or COSC513 or COSC541

## COSC667 Machine Leargning and Data

## Mining

3 HRS
Introduction to the theory and practice of automated data discovery and inference over large data sets. Students will implement various automated learning algorithms and learn the impact of inductive bias, overfitting and data representation on these algorithms. Applications covered include information retrieval, genetic sequencing and web based mining.
Prereq: MATH120, MATH360 and COSC471
or COSC561 or department permission
COSC67i Advanced Topics in DBMS 3 hrs Advanced topics in database principles. Higher normalizations, query optimization, triggers and active databases, transaction control, object-oriented database model, issues in distributed and parallel database, multidimensional indexing, inexact indexing.
Prereqs: COSC471 or COSC571
COSC679/680/68i Special Topicsi/2/3 hrs A graduate level course in a specific area of computer science to be determined by the field of specialization of the instructor and the interest of the students.
Prereq: 12 hours of graduate computer science
courses and department permission

## COSC683 Software Engineering

## Practicum

3 HRS
Working in a software project team, students will develop a large software system, carrying
the project through from requirements analysis to acceptance testing. Teams will analyze "live" problems, that is, projects selected for their functionality to the user(s) involved. This is a laboratory course with formal class meetings only for the distribution of projects.
Prereq: 18 hours of graduate computer science courses and department permission

## COSC685 Software Quality

Assurance
3 HRS
This course covers various techniques for assessing the quality of software. Topics include types of testing techniques, inspection and technical review, complexity measures, and test planning, design and execution. An introduction to one or more software testing automation tools will also be covered.
Prereq: COSC481 or COSC581
COSC690/691/692 Thesis I/2/3 HRS Intensive research into a computer science problem and the preparation of a report consistent in substance and form with the standards of the discipline.
Prereq: 18 hours of graduate computer science
courses and department permission

## COSC697/698/699 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or implementation of a project under the direction of a member of the computer science faculty.
Prereq: 12 hours of graduate computer science courses and department permission

## College of

Technology Courses

## COT586/587/588/589 Internship in

 Technology I/2/3/4 hrsCOT $590 / 591 / 592$ Special Topics $\quad$ I $/ 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. Students may elect this course more than once, provided different topics are covered.

## COT597/598/599 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## COT6oo Introduction to the Interdisciplinary Study of

 Technology3 HRS
This course severs as an introduction to the interdisciplinary study of technology by acquainting students with science, technology and society (STS) studies, and with technology philosophies and theoretical paradigms such as social constructivism, scientific rationalism, technological determinism, appropriate technology, technology ethics and socio-technological systems theory. Students will apply these
theoretical and analytical concepts to the study of technological systems. Offered only to Ph.D. in Technology students.

## COT6or Technology Trends and

Issues 2 hrs This course exposes students to cutting-edge technological trends and issues in a variety of scientific and industrial fields through reading and guest lectures by campus experts. Students will have an opportunity to conduct in-depth examinations of selected topics presented, and may use this research as an opportunity to identify or refine potential dissertation topics by linking them to the most current research in a given field of study. Offered only to Ph.D. in Technology students.
Concurrent prereq: COT600

## COT602 Planning for Technological

## Change

3 HRS In this course, the need for technology planning is conveyed, as it applies to organizations and society. At the organizational level, principles of strategic planning are reviewed, the business strategies of well-known companies are studied, and a case is made for the needed linkage between strategic business planning and technology planning. In this course, students are introduced generally to the technology "life cycle" concept, and the importance of planning to effective technology utilization. Offered only to Ph.D. in Technology students.
Concurrent prereq: COT600

## COT6os Technology Design,

Development and Transfer 3 hrs This course examines the processes involved in designing and bringing new products to market, and the engineering, cultural, political and business factors that influence those processes. Special attention is paid to the concepts of hu-man-centered and gendered design, the structure and functioning of product development teams and the philosophy of concurrent engineering. Also covered in this course is the role that governments and agencies play in supporting technology transfer from research laboratory to marketplace, and from country to country. Offered only to Ph.D. in Technology students.
Prereq: COT600

## COT6io Introductory Research

## Design and Applied Statistics in <br> Technology

3 HRS
An application of introductory research design and statistics in technology. Emphasis is on the relationship between descriptive research design and methods and associated statistics. Students begin the process of developing a research proposal, formulating research questions, selecting data gathering methods and interpreting appropriate statistical procedures. Offered only to Ph.D. in Technology students.
Prereq: department permission

## COT6ii Advanced Research Design and

Applied Statistics in Technology 3 hrs This course extends the subject matter considered in COT610. It is an application of experi-
mental research design and parametric statistics to scholarly inquiry in technology. Emphasis in on the relationships between true and quasiexperimental research designs and methods and associated statistics. Students continue to refine their research proposals. Offered only to Ph.D. in Technology students.
Prereq: COT610

## COT6i2 Qualitative Methods and

Research Design in Technology 2 hrs This course will describe how to use qualitative research methods and designs for conducting technology research. Students will acquire an understanding of the inherent differences between quantitative and qualitative research. Specific qualitative approaches for collecting, coding and analyzing data will be presented. Students will learn how to transpose qualitative data into quantitative data as well as learning how to utilize various computer programs within qualitative research. Offered only to Ph.D. in Technology students.

## COT6is Implementing and Managing

Technological Change 3 hrs
This course covers the concepts of technology management as a field of study, the rationale for technology introduction, the value of partnership approaches to technology introduction and implementation, the role of organizational culture in contributing to technology success or failure and the importance of training and competency building. Students will study bestpractice scenarios, apply the principles learned to case studies and critically analyze technological change practices at their own workplaces or an organization of their choosing. Offered only to Ph.D. in Technology students.

## Prereq: COT600

## COT62o Integrated Product and

Process Design
3 HRS
This course will focus on the integration of three enterprise processes: product development, process planning and manufacturing systems. Emphasis will be placed on (a) customer focus, (b) concurrent/collaborative engineering and product/process design improvement approaches, and (c) the insourcing/outsourcing decision process. E-business as it relates to collaborative product design with suppliers will also be addressed.
Prereq: MKTG510 and POM503 or their equivalents
COT671/672/673 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. Students may elect this course more than once, provided different topics are covered.

## COT677/678/679 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems under the direction of a faculty member.

## COT686/687/688/689 InTERNSHIP IN

 TechnologyI/2/3/4 HRS

## COT704 Legal and Policy Aspects of

 New Technologies3 HRS
This course examines the legal and policy issues raised by new technologies, nationally and globally. These issues include, but are not limited to, information privacy, biotechnology, technology transfer, executive responsibility, intellectual property, software protection and national and international technology policy development processes. The course utilizes a seminar format, which includes case study analysis and examination of information on the World Wide Web. Offered only to Ph.D. in Technology students.

COT $77 \mathrm{I} / 772 / 773$ Special Topics $\mathrm{I} / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. Students may elect this course more than once, provided different topics are covered.

## COT $777 / 778 / 779$ Independent Study 1/2/3 HRS

An intensive study of a problem or group of problems under the direction of a faculty member.

## COT78o Technology Impact

 Assessment3 HRS
Using a multidisciplinary approach, this course presents conceptual frameworks for assessing the impact of technology on society, institutions, organizations and individuals. It examines the mutual interaction of technological and human systems, and the social institutions engaged in technology impact analyses. Offered only to Ph.D. in Technology students.
Prereq: COT600

## COT786/787/788/789 Internship in <br> Technology $\quad \mathrm{I} / 2 / 3 / 4$ hrs

COT87I/872/873 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. Students may elect this course more than once, provided different topics are covered.

## COT877/878/879 Independent Study 1/2/3 HRS

An intensive study of a problem or group of problems under the direction of a faculty member.

## COT895 Dissertation Research and Design Seminar

3 HRS
This seminar is an opportunity for students to identify and refine possible dissertation research topics by critically analyzing how the study of technology is approached in the research literature. By exploring the nature of inquiry in technology, students will be able to identify the conceptual framework for a dissertation, write a research problem statement and construct a preliminary research plan. Offered only to Ph.D. in Technology students.
Prereq: COT600/610

## COT896/897/898/899/900 Dissertation Research I/2/4/8/I2 HRS

## Counseling Courses

## COUNsoo Professional Educator

Development Program $\quad 1 / 2 / 3$ hrs For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

## COUNsoz Helping Relationships: Basic Concepts and Services 3 hrs

 This course includes an introduction to concepts and principles used in helping relationships and an overview of services offered by helping professionals. The course provides experiences in interpersonal relations and opportunities for self-development. Increasing the potential counselor's awareness of cultural pluralism, diversity and the contextual validity of theories and intervention techniques is also an essential component of this course. Open to majors, non-majors and seniors with permission.
## COUNsos Counselor Development:

## Basic Skills

3 HRS
This course is designed to train prospective counselors for competencies in beginning counseling skills and to assess individuals' potential for counseling. Clarification of expectations for entering the counseling profession, examining motives, selecting complementary learning experiences, getting the most out of training, and tracing one's beginnings as a helper. Open to majors, non-majors and seniors with permission.

COUNso8 Theories of Counseling 3 hrs The focus is the rationale, historical development and major constructs of theories that represent foundational approaches to counseling. The applicability of each theory for practice with diverse client populations is studied as well as the ethical and legal implications of practice. Students begin the development and conceptualization of a personal counseling theory.
Prereq: COUN502/505

## COUNsio Counselor Development: Counseling Process

3 HRS This course is designed to integrate basic skills and to train prospective counselors for the implementation of counseling skills. A major portion of the course focuses on knowledge of the counseling process, stages and practices. Introductory study of contemporary counseling models is provided. Ethical considerations are covered. Counseling practices for specific issues and populations are introduced.
Prereq: COUN502/505 and students must be program admitted

COUN 515 Crisis Intervention 2 hrs Focus on crisis intervention from theoretical and practical perspectives. Emphasis on defining the nature of crisis; on intervention in specific crisis reactions resulting from such events as rape, loss or illness; and on intervening with suicidal clients
and other clients in crisis. Practice in intervention through role-playing.
Prereq: COUN505
COUN 520 Assessment in Counseling 3 hrs This course is designed to provide a foundation for using assessment procedures in counseling. Emphasis will be given to developing skills in using basic measurement concepts and qualitative and quantitative assessment methods.
Prereq: COUN502 and EDPS677

## COUN5zo Career Development and

Information Services
3 HRS
This course includes an introduction to the psychology, sociology and economics of work and career-development theory. It also provides the skills needed for identification and organization of information services in counseling and student affairs practice. Students are also introduced to the method and practice of career counseling and student affairs practice.
Prereq: COUN502 and COUN505
COUN540 Group Process I 3 hrs This course will introduce basic group counseling theories and processes. Students will learn to observe and critique the group process. Information will be presented on such topics as the types, rationale, development, leadership and ethics of groups.
Prereq: COUN502 and COUN505

## COUN5so Introduction to Student

Affairs in Higher Education 3 hrs This course is designed to provide an introduction to the field of student affairs in higher education. The course provides several introductory elements: an historical overview of student affairs, professional ethics, theoretical approaches to student learning and an introduction to the various functions and activities associated with student affairs. The course is designed to examine student affairs in public and private institutions as well as community colleges.

## COUNsji Contemporary College

## Students

3 HRS
This course focuses on an examination of the changing undergraduate lifestyle, attitudes, characteristics and demographics of today's college students. In the course the students will examine the effects of higher education, the student as learner and student development theory. Attention is given to both traditional and nontraditional college populations in two- and four-year institutions.
Prereq: COUN550 or permission of instructor
COUN57I Cross-cultural Counseling 3 hrs Develop an understanding of the influence of culture on intra- and interpersonal behavior, as well as the interpersonal competence and instrumental skills needed to counsel people from multiple and culturally different backgrounds.
Prereq: COUN505
COUN572 Counseling Parents 2 hrs Focus on the significant parent counseling programs and techniques in current use. Provision
of opportunities to utilize learned counseling and communication skills in assisting parents to develop effective parenting skills compatible with their cultural, ethnic, religious, interpersonal and social orientations.
Prereq: COUN505 or permission of instructor
COUN573 Counseling Older Persons 2 hrs This course is designed to provide students with information and skills needed by counselors to work with older adults. The focus of this course is on a developmental counseling perspective emphasizing aging - an important aspect of lifespan development. Students will study the methods and strategies needed to assist older adults who face changes, concerns, crisis and adaptations associated with aging.
Prereq: COUN505 or permission of instructor

## COUN574 Couple and Family

 Counseling2 HRS
This course provides an overview of couple and family counseling. Participants will have an opportunity to learn couple and family counseling skills as well as focus on related principles, practices and processes. Information will be provided on contemporary approaches, ethical considerations and professional issues. Counseling practices for different populations and types of families will be explored. The course will have an experiential learning and discussion format. Prereq: COUN505 or permission of instructor

## COUN575 Substance Abuse

Counseling I 2 hrs
The course introduces participants to basic knowledge, concepts and counseling methods utilized in the field of chemical dependency. The prospective counselor will acquire a basic foundation for working with clients who are affected by their own, or someone else's, chemical abuse.
Prereq: COUN505

## COUN576 Counseling Survivors of Trauma <br> 2 HRS

The purpose of this course is to provide students with the basic knowledge and skills to work with clients who have experienced traumatic events. The course will focus on both the assessment of trauma reactions as well as individual and group interventions with children and adults.
Prereq: COUN505
COUN $590 / 591 / 592$ Special Topics $1 / 2 / 3$ hrs Special courses and seminars dealing with contemporary topics and issues in the counseling and student affairs practice field. Designed primarily for graduate students and practitioners in the helping professions. Topics to be selected. (See current schedule.) Not more than six hours of special topics may be used on a degree program. Prereq: will be determined on the basis of special topics being offered

## COUN595 Workshop

2 HRS
Workshops dealing with selected areas within the counseling and student affairs practice field such as the self-concept, career education, psychological education and other relevant topics of interest.

Prereq: open to counseling and student affairs practice majors and graduate students in related fields

## COUN597/598/599 Independent Study I/2/3 HRS

In these classes students have an opportunity to explore topics of interest in an intensive and independent manner. Topics must be selected, and an independent study pursued, with the approval and supervision of a member of the faculty in counseling and student affairs practice. Offered on a credit/no-credit basis.
Prereq: department permission
COUN6i2 The School Counselor 2 hrs This course emphasizes the role of the school counselor in the comprehensive developmental counseling program. The focus is on the historical evolution, skills and techniques for working effectively with a diverse population of students, K-12. This includes the development of skills for working with teachers, parents, administrators, referral agencies and other educational teams.
Prereq: COUN502 and COUN505

## COUN622 Diagnosis and Treatment

## Planning in Counseling

3 HRS
This course provides students with a working knowledge of diagnostic classification systems, specifically the current version of the DSM. Additionally, the course introduces students to skills in selecting and implementing appropriate treatment strategies and in case presentation. Students have opportunities to apply knowledge and skills to client cases.
Prereq: COUN510 and COUN520

## COUN63i Dynamics of Life

Development
2 HRS
A study of life transitions and their impact on personal, social and vocational development. Theoretical concepts and recent research findings on adult development will be examined. Exploration of practical program applications for individual and group counseling.
Prereq: COUN510 and COUN530
COUN640 Group Process II 2 hrs
Advanced opportunity for students to develop further group skills and to expand their awareness of interactions in a group. Assessment of the student's own potential as a group counselor through small group participation.
Prereq: COUN510 and COUN540

## COUN65o Organization and <br> Administration of School

Counseling Services
2 HRS
A study of the philosophy and principles of counseling as implemented into practice. Examination of the organization and administration of the various counseling services and the counseling functions of various school staff members.
Prereq: COUN502 and COUN505
COUN6si Counseling with Children 3 hrs An investigation of the specialized skills and theoretical frameworks involved in counseling
with children. Special emphasis will be placed on the consideration of developmental levels and on the use of play therapy techniques. This course is applicable to counselors wishing to practice in community, private practice and elementary school settings.

## COUN652 The Counselor as Consultant

2 HRS
Basic overview for counselors of the theories, process and practices in consultation. Methods of establishing collaborative relationships are described. Individual and group consulting approaches for counselors will be discussed and practiced.
Prereq: COUN505 or permission of instructor

## COUN655 College Student Development Theory

3 HRS
This course teaches education professionals to apply college student development and learning theories in higher education environments. Students will learn how various theories can be intentionally applied to facilitate student development both inside and outside the classroom. Student development theory is unique to higher education environments. Further relevant psychological theories are offered in PSY640 and PSY646.
Prereq: graduate standing

## COUN66o Community Resources in Counseling <br> 2 HRS

Identification, analysis and development of the community resources needed by counselors who work in a variety of settings. Focus on skills in identifying, referring and receiving client referrals. Presentations by representative community agencies in class or on-site during class time.
Prereq: COUN502

## COUN67i Advanced Multicultural Counseling <br> 3 HRS

This seminar style course is designed to assist helping professionals in enhancing the knowledge and skill components of multicultural counseling. The course is designed for students who have already obtained a personal awareness of the importance of counselor and client race, ethnicity, gender, socioeconomic class, religion/ spirituality, disability, and sexual orientation, and the sociopolitical effects of these issues on the counseling process. This course is heavily experiential as there is a fieldwork component where students will practice using cultural competency skills.
Prereq: COUN571
COUN679/680/68i Special Topics i/2/3 hrs Special courses and seminars dealing with contemporary topics and issues in the counseling and student affairs practice field. Designed primarily for graduate students and practitioners in the helping professions. Topics to be selected. (See current schedule.) Not more than six hours of special topics may be used on a degree program. Prereq: will be determined on the basis of special topics being offered

## COUN683/684/685/686 Counseling

Practicum I I/2/3/4 hrs
The purpose of this practicum experience is to provide opportunities for students to work with diverse clients and client situations. It serves as an integrating component in master's degree programs, affording students a structured and supportive environment in which to apply counseling theories, techniques and skills learned in previous course work. Students also develop skills in observations, feedback, case preparation, interview analysis and reporting as well as become aware of a variety of professional resources and community referral agencies.

## Prereq: department permission

COUN687 Counseling Practicum II3 hrs
This advanced course focuses on the theory and practice of group counseling. Students are provided opportunities to facilitate counseling groups under the supervision of a faculty member. Offered on a credit/no-credit basis.
Prereq: COUN686 and department permission

## COUN688 Supervision of Counseling

 Practicum2 HRS
The opportunity for advanced trainees to supervise students in a counseling practicum experience. Development of beginning competencies in supervision through critiquing of tapes, leading group discussions and evaluating the growth of beginning counselors. Offered on a credit/no-credit basis.

## Prereq: department permission

## COUN689 Field-Based Experience I 2 hrs

 This course emphasizes on-the-job experiences under professional supervision that afford the student practical experiences in counseling and student affairs in settings such as colleges, universities, community colleges or other approved settings. Offered on a creditno-credit basis.Prereq: department permission
COUN69o Field-Based Experience II 2 hrs This course emphasizes job experiences under professional supervision that afford the student practical experiences in student affairs in such settings as colleges and universities, community colleges or other approved placement settings.

## COUN692 Seminar: Ethical, Legal \& Professional Issues in College Counseling <br> 2 HRS

This course provides opportunities for students to synthesize learning from previous coursework with application to college counseling. Current issues in the field, ethical \& legal considerations, student development theories with an emphasis on diverse student groups and an action research project will be the focus of this course.
Prereq: COUN550 and COUN551, or permission of instructor

## COUN694 Seminar: Ethical, Legal \&

 Professional Issues in Community Counseling 2 hrsTo work effectively in community settings, counselors must be aware of current issues and changes in the profession. This course
provides oportunities to explore ethical \& legal issues, professional considerations such as community counselor identity, relationships with other mental health professionals, professional credentialing and managed care and third-party reimbursement.
Prereq: COUN686

## COUN696 Seminar: Ethical, Legal \&

Professional Issues in School
Counseling
2 HRS
This course provides opportunity to synthesize practical experiences in education and previous coursework with an emphasis on professional development as a school counselor. An integration of school counseling theories and models, legal, ethical and current issues, case studies and an action research project will be the focus of the course.
Prereq: COUN650 and COUN686

## COUN697/698/699 Independent Study I $2 / 3$ HRS

In these classes students have an opportunity to explore topics of interest in an intensive and independent manner. Topics must be selected, and an independent study pursued, with the approval and supervision of a member of the faculty in counseling and student affairs practice. Offered on a creditlno-credit basis.
Prereq: department permission

## COUN785/786/787/788/789 The

Counseling Internship I/2/3/4/6 hrs An intensive field-based experience for candidates in the master's degree programs in college student personnel services, school counseling, community counseling and the specialist's degree in counseling. Counseling knowledge and advanced competencies are integrated in a setting under professional supervision. Placements are in a variety of community agency, school, college or educational settings. Application for the internship and approval for placement are required prior to registration. 600 hours in the setting are required for the counseling programs. Offered on a creditno-credit basis.
Prereq: 10 hours of advanced studies course work andlor department permission

## Criminology Courses

CRMso6 Criminology
3 HRS
The study of the nature, measurement, types and causes of crime.

## CRMso7 Criminal Justice in

Contemporary Society
2 HRS
The course gives critical analysis of various components of criminal justice. Interrelationships to broader societal processes are stressed. Focus is directed on the police, courts and parts of the punitive/correctional apparatus.

CRMsiz Social Deviance
3 HRS
The development of deviant self-conceptions; social psychological processes of group alienation and individual estrangements. Deviant behavior patterns and the development of deviant careers; theories of deviance.

## CRM547 Advanced Studies in

## Criminology

3 HRS
An intensive analysis of selected problems in criminology and the application of criminology to policies and programs of crime prevention and control.

## CRM5so Domestic Violence and Sexual Assault <br> 3 HRS

A comprehensive study of the physical, sexual and emotional abuse that disproportionately affects women. Topics include theories of violence and intervention strategies.

CRM590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## CRM597/598/599 Independent Study $1 / 2 / 3$ HRS

Intensive study of a criminological problem or theory, supervised by a member of the criminology faculty.
Prereq: department permission

## CRM6io Theories of Criminal

 Behavior3 HRS
Consideration of major theories of criminal and delinquent causation. Emphasis on sociological factors in criminal acts, and dynamics of criminal and delinquent behavior.
Prereq: SOCL677

## CRM6if Sociology of Crime and Its

## Correction

3 HRS
Punishment, rehabilitation and contemporary correctional policies; the courts and criminal responsibility; the social structure of correctional organizations and institutions, and their effect on the correctional process.

CRM6so Media, Crime and Justice 3 hrs An examination of the intersecting roles of media, crime and justice and how the three converge to influence policies of social control.

CRM679/680/68i Special Topics I/2/3 hrs A brief, intensive exploration of specific aspects of crime and its relationship to social organization. Not more than six hours of special topics may be used on a degree program.

## CRM683 Workshop in Crime and the

## Community

2 HRS
A brief, intensive exploration of specific aspects of crime and its relationship to social organization.

CRM690/69I/692 Thesis I/2/3 HRS Completion of research and/or analytical problem, writing of thesis and committee approval of same. Offered on a credit/no-credit basis.
Prereq: department permission

## CRM697/698/699 Independent Study

 I/2/3 HRSIntensive study of a criminological problem or theory, supervised by a member of the criminology faculty.
Prereq: department permission

## Communication and Theater Arts

Courses Offered
The following list of courses is divided into two broad categories - General and Specialization - within which courses are grouped by program (e.g. communication, theatre arts) rather than listed in consecutive numerical order. General courses are offered for the benefit of graduate students specializing in other departments who wish to take collateral or cognate work in the Department of Communication and Theatre Arts, as well as for credit toward the department's degrees. Specialization courses are specifically designed for students seeking credit toward degrees within the Department of Communication and Theatre Arts. Courses in either category, however, are open to any graduate students having the necessary prerequisites.

## Communication Courses

## CTACsO4 Creativity and

Communication 2 hrs Develop an understanding of the role communication plays in the creative process; ranging from communication skills necessary to individually generate ideas, work collaboratively with others to develop ideas and persuade organizations to implement ideas.

## CTAC fos Assertiveness Skills for

 Professionals2 HRS Assertiveness skills training for business and education professionals. The focus of the course is on the theory and practice of assertive behaviors.

## CTACso6 Persuasion in the Modern

 World2 HRS
Emphasis is placed on the uses and applications of persuasion in such areas as politics, business, religion and education.

## CTACso7 Negotiation Skills for

Professionals
2 HRS
Practical applications of negotiation skills for counseling, education and business professions.

## CTAC 508 Small Group Decision-

 Making2 HRS
The theory and practice of discussion, and practice of communication in small-group deci-sion-making.

CTAC 509 Communication for Leaders 2 hrs Theory and applications of communication in leadership roles. Deals with interviews, staff meetings, dyadic communication, communication in organizations and communication
barriers, with methods of evaluating and improving interpersonal, group and public communication.

## CTACsio Listening Skills for

Professionals 2 HRS Practical applications of listening skills for counseling, education and business professions.

## CTACsii Readings in Interracial/

Interethnic Communication 2 hrs
The development of analytical skills and the study of theoretical perspectives that are applicable in effective interracial/interethnic communication transactions.

## CTACsiz Conflict Resolution Skills

## for Professionals

2 HRS
Practical applications of the communication skills utilized for conflict resolution processes and procedures for professionals.

CTAC57o Teaching of College Speech i hr Theory and practice of teaching speech at the college level. Offered on a credit/no-credit basis.
Prereq: department permission

## CTAC572 Studies in Organizational <br> Communication <br> 3 HRS

The study of organizations from a communication perspective, focusing on the theoretical views and analytical skills necessary for understanding the role communication plays in the organizing process.

## CTAC573 Studies in Communication and Negotiation <br> 3 HRS

The theory and practice of negotiation for interpersonal, small-group and labor/management applications.

## CTAC575 Studies in Listening

## Behavior <br> 3 HRS

A study of the practice of listening behavior for interpersonal, small-group and organizational applications.
Prereq: major in communication and theatre arts.
CTAC576 Public Address 3 hrs
Critical study of significant speeches of leading speakers with reference to dominant issues and influences on social and political life.

CTACs77 Communication and Change 3 hrs An exploration of interpersonal, small group, organizational, public and mass communication from the perspective of change theories.

CTAC578 Community Communication 3 hrs An exploration of such communication problems as communicator acceptability, social coordination and outcome achievement from the perspective of the community context.

## CTAC579 Studies in Intercultural

Communication
3 HRS
The study of theoretical perspectives and the development of analytical skills necessary for effective intercultural communication transactions.

CTAC58i Rhetorical Theory to 19003 hrs A study of selected rhetorical theories from the classical age to 1900 . The course is designed to facilitate understanding of the transition from classical to modern rhetorical theory.

CTAC582 Modern Rhetorical Theory 3 hrs A study of selected rhetorical theories from 1900 to the present with a view of discovering the methods and objectives of modern rhetoricians, and relating them to society and its problems.

## CTAC 583 Communication and Conflict Resolution <br> 3 HRS

A study of the theory and practice of communication strategies for conflict resolution for interpersonal, small-group and organizational applications.

## CTACs84 Studies in Small Group

Communications
3 HRS
An examination of methods and research currently being conducted in discussion and smallgroup studies.

CTAC586 Theories of Persuasion 3 hrs A review of contemporary research and theory of persuasion.

CTAC587 Communication Theory 3 hrs A critical examination of fundamental processes and principles of communication behavior.

CTAC590/591/592 Special Topics i/2/3 hrs Students will investigate a particular topic that is approved by the Department of Communication and Theatre Arts. Not more than six hours of special topics may be used on a degree program.

## CTAC597/598/599 Independent Study I/2/3 HRS

Advanced study on an individual basis in areas not covered, or not covered in depth, in formal course work. May be repeated for credit.
Prereq: department permission
CTAC6oo Communication Inquiry 3 hrs Communication Inquiry explores the questions, methods and assumptions employed by scholars in communication. The course focuses on current literature, theoretical frames and basic approaches to research. Course is available to communication majors only.

## CTAC606/607/608 Colloquium in

Communication $\quad 1 / 2 / 3$ hrs
Students will study a special topic area with resource persons from the community as well as members of the communication and theatre arts faculty. Offered on a credit/no-credit basis.

## CTAC645 Theories of Interpersonal

Communication
3 HRS
Study of the theoretical foundations of interpersonal communication, and survey of related research.

## CTAC677 Research Techniques in

Communication 2 hrs An introduction to the nature and value of research; the research problem; basic research tools; philosophical foundations of historical, descriptive and experimental research; professional writing.

CTAC679/680/68i Special Topics i/2/3 hrs Students will investigate a particular topic that is approved by the Department of Communication and Theatre Arts. Not more than six hours of special topics may be used on a degree program.

## CTAC682/683/684/685 Workshop in

Communication I/2/3/4 hrs
Students will be provided practical and theoretical study in a selected topic area. Offered on a credittno-credit basis.
Prereq: department permission

## CTAC686/687/688 Cooperative

 Education in Communication I $/ 2 / 3$ HRSOne semester of supervised educational work in communication and theatre arts. An evaluation is required at the end of each employment period. Offered on a creditno-credit basis.
Prereq: department permission

## CTAC689 Internship in Communication and Theatre Arts 4 hrs

A directed field experience in a department-approved agency or institution under the direction of certified personnel. Arrangements must be approved by adviser prior to registration. Offered on a credit/no-credit basis.
Prereq: department permission

## CTAC69o/69I/692 Degree Requirement

 I/2/3 HRSA research-oriented study conducted under the supervision of a departmental faculty committee.
Offered on a credit/no-credit basis.
Prereq: department permission

## CTAC693/694/695 Seminar in

 Communication and Theatre Arts $1 / 2 / 3$ HRSA research-oriented course for graduate majors in communication and theatre arts.

## CTAC697/698/699 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of one or more problems under the direction of a faculty member.
Prereq: department permission

## Interpretation/Performance Studies Courses

CTAO536 Screenplay Writing I 3 hrs Introduces students to a process that leads to the successful completion of a screenplay to midpoint; includes film structure, character and dialogue, writing for visual impact, screenplay format.

## CTAO 540 Personal Narrative/Oral

History in Performance 3 hrs Explores nature and role of these texts in relationship to "other" and social-cultural-political perspectives. Focus on primary sources, including interviewing, transcribing, scripting, staging for solo-group performance and ethics.

## CTAOs4i Performance, Text, and

Context
3 HRS Exploration and experience in locating new texts and performances within the parameters of specific contexts. Emphasis on implications of cultural, sociopolitical and critical perspectives.

## CTAO542 Adapting/Directing Narrative Theatre <br> 3 HRS

 Analysis, adaptation and direction of narrative, particularly prose fiction, for group performance and theatre; exploration of group performance as dramatic enactment, interrogation, cultural and critical expression; experimentation in emergent forms.CTAO590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## CTAO597/598/599 Independent Study

 I/2/3 HRSAdvanced study on an individual basis in areas not covered, or not covered in depth, in formal course work. May be repeated for credit.
Prereq: department permission
CTAO679/680/68i Special Topicsi/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

CTAO682/683/684/685 WогкSноР $\mathrm{I} / 2 / 3 / 4$ HRS Students will be provided practical and theoretical study in a selected topic area. Offered on a credittno-credit basis.
Prereq: graduate student in communication and theatre arts, or a related field; department permission

CTAO695 Seminar in Interpretation 3 hrs A research-oriented course for graduate majors in communication and theatre arts. May be repeated for credit.

## CTAO697/698/699 Independent Study 1/2/3 HRS

An intensive study of one or more problems under the direction of a faculty member.
Prereq: department permission

## Theatre Arts and Drama/Theatre for the Young Courses

CTARjoi Creative Drama and Role-Play 2 hrs An introduction to understanding the creative process, dramatic play, gaming and involvement drama as developmental learning.

## CTARsoz Introduction to Theatre for

 the Young2 HRS
An introductory consideration of the scope, purposes, forms and materials of theatre for the young.

## CTARgo4 Oral Interpretation of

 Literature and Language with the Young 2 HRSEmphasis on the study of interpreting literature orally for and with the young, including developing competence and understanding in the adult and child in interpretive and improvised work emerging from literature and language.

CTAR 522 TIE: Theatre-in-Education 2 hrs A study of the origin, principles and forms of TIE: Theatre-in-Education. Students will have opportunities to plan and evaluate TIE sessions.

## CTARs23 Puppetry: Catalyst in Human

 Development3 HRS
Consideration of puppetry as a medium for learning and creative expression. Experience in constructing puppets for purposeful work with people. Examination of the applications of puppetry to many disciplines.

## CTARs24 Developmental Drama/ Theatre for Persons with Disabilities <br> 2 HRS

Study of principles, theories and practices of developmental drama/theatre for persons with disabilities. Applications to educational, recreational and institutional settings will be stressed.

## CTAR 525 Developmental Drama/Theatre

 in Recreational Settings 2 hrs An exploration of the theory and practice of developmental drama/theatre in various recreational settings, such as camps, parks, community centers, Girl Scouts, 4-H Clubs.
## CTARs28 Developmental Drama/

Theatre in Religion
2 HRS
Consideration of and experience in uses of developmental drama/theatre for various religious settings and purposes.

## CTAR 529 Producing Theatre for Young

 Audiences3 HRS
Students will gain practical experience in play development, direction, performance and production for young audiences. A theatre production designed for touring will be performed at area schools and other community sites.
Prereq: department permission is required

## CTAR557 Audition Techniques for the

 Actor2 HRS
Review of the literature and personalized preparation of materials and techniques equipping the
actor to better confront tryouts and auditions for the commercial and noncommercial theatre.

CTAR558 Directing Styles 2 hrs
The theory and practice of directing selected periods of drama, with emphasis on Greek, Elizabethan, Restoration, modern and non-Western presentational forms.

CTARs62 American Theatre History 2 hrs A tracing of the main currents in the history of the American theatre from its beginnings in the middle 1700s to the present day.
Prereq: CTAR450 and CTAR451, or equivalent

## CTAR565 Studies in Drama/Theatre for

 the Young2 HRS
Studies in the history, theory and techniques of drama and theatre for/with the young.
Prereq: CTAR323 or CTAR501 or CTAR657,
and either CTAR322 or CTAR658

## CTARs68 Musical Theatre Performance Techniques <br> 2 HRS

The course is designed for knowledgeable actors who are beginning work with musical theatre literature. The emphasis is on workshop experience to develop techniques for performing songs.

CTAR590/591/592 Special Topics i/2/3 hrs Students will investigate a particular topic approved by the Department of Communication and Theatre Arts. Not more than six hours of special topics may be used on a degree program.
Prereq: graduate standing or qualified senior in communication and theatre arts

## CTAR597/598/599 Independent Study

 I $/ 2 / 3$ HRSAdvanced study on an individual basis in areas not covered, or not covered in depth, in formal course work. May be repeated for credit.
Prereq: department permission

## CTAR6o6/607/608 Colloquium in

 Communication and Theatre Arts I $2 / 3$ HRSStudents will study a special topic area with resource persons from the community as well as members of the communication and theatre arts faculty. Offered on a credit/no-credit basis.
Prereq: department permission

## CTAR627 The Playwright and the

 Young Audience3 HRS
A study of dramatic literature for the young, from developmental as well as artistic viewpoints, and in contexts of the main body of dramatic literature and children's literature, and the total educational experience of children and adolescents.

## CTAR6si Design I

2 HRS
Intermediate consideration of the theoretical and mechanical factors governing the design of scenery for the stage.

## CTAR657 Improvisation

3 HRS
A study of spontaneous dramatic play meant to develop deeper self-discipline and freedom
and to extend resources for teaching, directing and acting.
Prereq: graduate standing in communication and theatre arts

CTAR658 Theatre for Children 3 hrs An extensive study of the nature and range of theatre experiences for children and adolescents.
Prereq: graduate standing in communication and theatre arts

CTAR66o Playwriting I 2 hrs Intermediate study of the approaches to, and the structural composition of, dramatic writing.

CTAR66ı Playwriting II
2 HRS
A continuation of CTAR660.
Prereq: CTAR660
CTAR662 Lighting
2 HRS
A continuation of CTAR362 Stage Lighting.
Prereq: CTAR362 or equivalent

## CTAR663 Costume I

2 HRS
Intermediate study of the approaches to, and the historical sources for, stage costuming.

CTAR664 Costume II 2 hrs Problems of construction and design of period costumes for the stage, with emphasis on practical application culminating in a final design and construction project.

CTAR677 Research Techniques 2 hrs An introduction to the nature and value of research; the research problem; basic research tools; philosophical foundations of historical, descriptive and experimental research; professional writing.

CTAR679/680/68i Special Topics i/2/3 hrs Students will investigate a particular topic approved by the Department of Communication and Theatre Arts. Not more than six hours of special topics may be used on a degree program.

## CTAR682/683/684/685 Wоrкshop in

 Communication and Theatre Arts I/2/3/4 HRSStudents will be provided practical and theoretical study in a selected topic area. Offered on a credit/no-credit basis.
Prereq: department permission

## CTAR686/687/688 Cooperative

Education in Arts Management 1/2/3 HRS
One semester of supervised educational work in communication and theatre arts. An evaluation is required at the end of each employment period. Offered on a creditno-credit basis.
Prereq: department permission

## CTAR690/691/692 Degree Requirement

 I $2 / 3$ HRSA research-oriented study conducted under the supervision of a departmental faculty committee.
Offered on a credit/no-credit basis.
Prereq: department permission

## CTAR693/694/695 Seminar in Communication

 and Theatre Arts $\quad 1 / 2 / 3$ Hrs A research-oriented course for graduate majors in communication and theatre arts.Prereq: department permission

## CTAR697/698/699 Independent Study

 1/2/3 HRSAn intensive study of one or more problems under the direction of a faculty member.
Prereq: department permission

## Telecommunication and Film Courses

CTAT537 Mass Communications 2 hrs A comparative study of the mass media in the United States; their development, function and import. Special emphasis will be placed on the process and effects of mass communication with detailed study of radio and television.

CTAT 590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## CTAT595 Workshop in Broadcasting and Film <br> 4 HRS

Students will be provided practical and theoretical study in a selected topic area. Offered on a credit/no-credit basis.

## CTAT 597/598/599 Independent Study $1 / 2 / 3$ HRS

Advanced study on an individual basis in areas not covered, or not covered in depth, in formal course work. May be repeated for credit.
Prereq: department permission
CTAT679/680/68I Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## CTAT686/687/688 Cooperative

Education in Telecommunication
and Film $\quad 1 / 2 / 3$ HRS
One semester of supervised educational work in communication and theatre arts. An evaluation is required at the end of each employment period. Offered on a credittno-credit basis.
Prereq: approval by Cooperative Education Office and the department

## CTAT689 Internship in

Telecommunication and Film 4 hrs A directed field experience in a department-approved agency or institution under the direction of certified personnel. Arrangements must be ap-
proved by adviser prior to registration.
Prereq: department permission
CTAT697/698/699 Independent Study $1 / 2 / 3$ HRS
An intensive study of one or more problems under the direction of a faculty member.
Prereq: department permission
Specialization Courses
Courses for students wishing credit toward the M.A. in communication and theatre arts; also open to other students with the necessary prerequisites.

## Curriculum Courses

## CURRsoo Professional Educator

 Development Program $1 / 2 / 3$ hrs For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.
## CURRsio Developing Creativity in the Classroom <br> 2 HRS

Helps teachers plan activities that encourage creativity in students. Emphasizes the direct teaching of creative thinking skills, developing a supportive classroom atmosphere and enhancing the teacher's personal creativity.

## CURRsi2 Enriching the Elementary

Classroom Program
2 HRS
This course is designed to help teachers use a variety of techniques to develop materials and strategies for classroom enrichment. Reinforcement and extension activities using application projects, exploratory activities, interdisciplinary connections and independent learning strategies will be included.

## CURR552 The Pedagogy of Group Learning

2 HRS The course presents a variety of methods for using groups and social learning in classrooms. The methods include, among others, cooperative learning, group investigation, simulation and role-playing. Theory, practice, application, evaluation and critical analysis of the methods will be stressed.

## CURR56o School and Classroom

Discipline 2 HRS This course will review case studies, general teacher practices and the theoretical base for classroom and school discipline management. Additionally, there will be a review and critique of emerging legal issues, information systems and programs that affect discipline.

## CURR572 Education of the Gifted Child

2 HRS The identification of gifted pupils; the use of test results, psychological services and cumulative records. Curricula stressing enrichment and acceleration and the use of community resources; of special value to classroom teachers.

CURR $590 / 591 / 592$ Special Topics i/2/3 hrs Prereq: department permission

CURR597 Workshop 4 hrs Students will be provided practical and theoretical study in a selected topic area. Offered on a credit/no-credit basis.
Prereq: department permission
CURR598/599 Independent Study $2 / 3$ hrs An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission
CURR607 Colloquium
2 HRS

## CURR6i6 Issues in Elementary School <br> Curriculum 2 hrs

Issues involving curriculum-development determinants and approaches, and the concept of change. Emphasis is on the role of the teacher in curriculum development.

## CURR6i8 Middle Level Education:

Theory and Practice
3 HRS
This course provides the background in the philosophy and history of middle-level education, and examines curriculum and instruction particular to the unique developmental needs of pre-adolescents.

## CURR62o Issues in Middle Level <br> Curriculum

3 HRS
This course focuses on the curricular implications of issues which address responsive middle grades program components and curriculum. Emphasis is placed on developmental and cultural appropriateness, and collaboration with students, colleagues, the family and the community.

## CURR622 Effective Teaching in Middle <br> Level Education 3 hrs

Focuses on instructional aspects of programs and classrooms in middle schools that are appropriate for the developmental needs of pre-adolescents. Included are interdisciplinary curricula, scheduling, adviser/advisee programs, instructional methods and materials, teaming, affective outcomes and classroom management.

## CURR630 Issues in Secondary School <br> Curriculum <br> 2 HRS

Students are encouraged to concentrate on curriculum problems in their schools involving issues of development, revision and change in the secondary school.

## CURR632 Individualizing Instruction in <br> the Secondary School 2 hrs

A course designed to help secondary teachers meet individual differences among their students by using a variety of resources, pupil involvement, thematic approaches and other teaching strategies.

CURR6so Improving Instruction through Inquiry and Assessment 2 hrs Participants inquire into individual students' learning processes, perceptions and patterns of development in order to plan effective instruction. Emphasis is placed upon understanding students through the use of action research methodologies, developmental theories and analysis of student work samples.

## CURR654 Multicultural Teaching and

 Learning3 HRS
The purpose of this course is to further develop students' multicultural/multiperspective teaching skills and understandings, to analyze one's own cultural experiences (seated in the arenas of class, race and gender), to expand skills of intercultural communication and to examine ways in which to create culturally sensitive teaching and learning environments.

CURR655 Curriculum Foundations 2 hrs Historical and theoretical authority for the curriculum; criteria for the choice of content; philosophical, psychological and sociological bases of curriculum.

## CURR656 Curriculum Design,

Implementation and Evaluation 2 hrs This course covers curriculum design and development from goal selection through implementation and evaluation. Students will be expected to produce curriculum examples that are consistent with the principles in the course.

CURR657 The Open Classroom 4 hrs The open classroom tied to a demonstration center, planning an integrated day based upon learning centers and pupil self-direction, the child-centered experience-based curriculum. Designed to help free teachers to become more innovative, open, creative and human in curriculum development.

## CURR66o Assisting Student Teachers

 and New Teachers2 HRS
This course is designed for teachers who are employed as clinical faculty, student teaching supervisors, cooperating teachers and mentor teachers. It develops teachers' awareness of their own reflective decision-making through action research, discussions and simulations. The course also presents a framework for assessing student teachers' development. Finally, teachers practice and analyze coaching and prob-lem-solving strategies for promoting reflective decision-making.

## CURR667 Teacher as Intellectual

## InQuirer <br> 2 HRS

This course emphasizes classroom inquiry for practitioners. Teachers explore autobiography, multiple and personal voices, and narratives in context. Readings and projects connect teachers' own agenda with school change and environment.

## CURR673 Curriculum and Teaching

 Strategies for the Gifted and Talented2 HRS
Study of curricular options and teaching models, and strategies appropriate for the differentiated learning needs of gifted/talented students.

## CURR675/ENGL675 Eastern Michigan Writing Project Summer Institute <br> 5 HRS

For practicing K-12 teachers across disciplines. Participants investigate and experience current practices in literacy instruction. Based upon National Writing Project assumptions, participants read, write and reflect upon their teaching.
Prereq: department permission

## CURR676 Education of the Gifted <br> and Talented: Underrepresented Populations <br> 2 HRS

Examines barriers that cause underrepresentation of student populations in gifted programs. Discusses identification and programming strategies for gifted students with disabilities, underachieving students and students from diverse cultural groups.

CURR679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. Students may elect this course more than once, provided different topics are covered.

## CURR682/683/684/685 Wогкsнор IN <br> Curriculum <br> I/2/3/4 HRS

## CURR686/687/688 Internship in Teacher

I/2/3 HRS
Provides a supervised opportunity for students to apply knowledge and skills gained through classroom activity in a "real world" working environment. Internship sites and supervisory arrangements must be approved by program adviser prior to registration.
Prereq: department permission

## CURR690/69i/692 Thesis/Curriculum

 ProjectI $/ 2 / 3$ HRS
This course is designed to be the culmination of master degree programs in elementary, middle school or secondary curriculum. Students must have a thesis/project proposal approved by a faculty committee before registering.
Prereq: department permission
CURR694 Seminar: Elementary School
Curriculum
2 HRS
Students in elementary-level education program plan and prepare proposals for the culminating thesis/project.

## CURR694 Seminar: Middle Level

Curriculum
2 HRS
Students in middle-level education program plan and prepare proposals for the culminating thesis/project.

CURR694 Seminar: Secondary
Curriculum 2 hrs
Students in secondary-level education program plan and prepare proposals for the culminating thesis/project.

CURR694 Seminar: Common Learnings 2 hrs Students will review the major domains of knowledge they will encounter on the comprehensive examination through participating in individual and study-group research.

## CURR697/698/699 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems. The completed study must give evidence of the student's ability to select a problem and set it up and pursue it to satisfactory completion. Must be done with approval of a full-time member of the faculty.

## CURR780 Special Topics 2 hrs

An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## Dance Courses

DANC590/591/592 Special Topicsi/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## DANC597/598/599 Independent Study

 I/2/3 HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission
DANC679/680/68i Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## DANC697/698/699 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Decision Science Courses

## DSjoi Introductory Probability and <br> Statistics for Business 3 Hrs

 The development of fundamental probability concepts and statistical techniques emphasizing their applications to business decision making. Includes the study of probability distributions, sampling, point and interval estimation, and hypothesis testing.Prereq: MATH118/119 or equivalent
DS590/591/592 Special Topics I/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
DS597/598/599 Independent Study i/2/3 hrs An intensive study of one or more problems under the direction of a University faculty member.
Prereq: department permission
DS6o2 Business Research Methods 3 hrs Statistics as a tool to assist in business decision making is emphasized. Computer software, data sets and written reports are utilized extensively. Techniques in the collection and analysis of data include: confidence intervals; hypothesis tests; linear regression, including dummy variables; analysis of variance; and survey design/analysis. Admission to the MBA program is required.
Prereq: ACC501, ECON500, FIN502,
LAW503, MKTG510, POM503 and
MGMT505 Concurrent prereq: LAW503
DS6os Economics of Strategy 3 hrs This course develops an economic framework for analyzing strategic decisions of the firm, relying on microeconomic principles, industrial organization, game theory and behavioral economics. Topics include the analysis of firm boundaries; market and competitive analysis (strategic commitment, pricing, barriers to entry and exit) and strategic positioning for competitive advantage. Admission to the $M B A$ program is required.
Prereq: ACC501, ECON500, FIN502, LAW503, MKTG510, POM503, MGMT505, MGMT600, DS602, MGMT604, and IS605
Concurrent prereq: IS605
DS679/68o/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

DS697/698/699 Independent Study i/2/3 hrs An intensive study of one or more problems under the direction of a University faculty member. Prereq: department permission

## Human Nutrition Courses

## DTC soo Research Design and

 Methods2 HRS
Study of designs and methods utilized in understanding and conducting research.

## DTCsog Nutrition Support

3 HRS
Advanced study in the science and practice of nutrition support; application of selection of candidates, delivery methods, equipment and formulas for enteral and parenteral nutrition; how to initiate, manage and assess outcomes of care; analysis of considerations that must be given in specific disease states.
Prereq: human physiology, biochemistry and nutrient metabolism, and six credit hours in undergraduate clinical nutrition

## DTC ${ }^{\text {i }} 8$ Interdisciplinary Team

 Functions3 HRS Exploration of the purpose, structure and functions of interdisciplinary health care teams. Application of decision-making process; integration of professional values and ethics.
Prereq: four hours of graduate-level course work or department permission

## DTCs3i Nutrition Therapy I

Experience
2 HRS
Supervised practice experience in the clinical nutrition professional environment.

DTC538 Outcomes Management 3 hrs Comprehensive examination of assessment/ screening, planning, implementation, counseling and monitoring techniques used in the nutrition care management process; development of nutrition care plans for assigned case studies.
Prereq: six hours in undergraduate nutrition

## DTCssi Food Systems Management I <br> Experience <br> 2 HRS

Application of basic components of an operating quantity food service. Supervised practice experience.
Prereq: DTC251 Coreq: DTC350

## DTCs7i Nutrition Therapy II

Experience
4 HRS
Supervised clinical and ambulatory site-based practice experiences in the clinical nutrition professional environment.
Prereq: DTC330 and DTC531 Coreq: DTC370

## DTC587 Cooperative Education in Dietetics <br> 3 HRS

Provides practical experience in the student's concentration for four to six months of fulltime employment with an individual employer. May not be used on 30-hour program plan for the master's degree. Offered on a credit/no-credit basis. Prereq: department permission

DTC590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course designed to investigate specific topics of concern in the specialization areas of study. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## DTC597/598/599 Independent Study I/2/3 HRS

An intensive study of a selected professional problem, under the direction of a faculty adviser.
Prereq: department permission

## DTC6oo Research I <br> 2 HRS

Application of the research process through development of a research project proposal for the culminating experience of the student's graduate program of study. Focus will be on writing chapters 1-3 of the research project report.
Prereq: DTC500 and EDPS621

## DTC607 Colloquium <br> 2 HRS

Academic seminars centered around the field of nutrition and involving lecturers from within and outside the program. Examine the current schedule book for specific offerings.

DTC6o8 Advanced Topics in Foods 3 hrs Analysis of selected advanced topics in food science with application to current issues of practice.

## DTC6i8 Advanced Topics in

## Nutrition

3 HRS
Analysis of selected advanced topics in human nutrition with application to current issues of practice.

DTC628 Medical Nutrition Therapy 3 hrs Integration of principles of physiology and nutritional biochemistry in relation to the metabolism of essential nutrients at cellular and intact levels of the human body.

## DTC63i Nutrition Therapy III

## Experience

4 HRS Supervised practice experience in a variety of community settings with emphasis on nutrition education techniques and the operation of federal, state and local nutrition programs.

## DTC638 Cultural Nutrition and

Nutritional Ecology

## 3 HRS

 Critical investigation of beliefs, cultural values and consequent behaviors with an emphasis on how they impact nutritional status. Examination of issues in the political, physical and social environments that impact the availability of food and nutrients in the United States' food supply.Equivalents: DTC508 and DTC649

## DTC648 Methods and Strategies for <br> Community-Based Nutrition

 Services3 HRS Analysis of advanced topics in community nutrition including identification of community problems, needs and resources; planning, implementation and evaluation of programs and communication skills in nutrition education. Department permission is required for non-

## Human Nutrition majors. <br> Prereq: DTC430 or equivalent

## DTC65o Research III <br> I HR

Presentation of culminating experience with emphasis on oral and written methods and skill development. Focus is on research project oral presentation and preparation of a poster presentation and a manuscript.
Prereq: DTC695

## DTC6si Food Systems Management II Experience <br> 4 HRS

Administrative functions of food service departments such as assessing, planning, decisionmaking, evaluating and training. Communication, stress control and behavior management. Supervised practice experience.

## DTC658 Nutrition and Aging 3 hrs

 Application of the life course principles to the understanding of nutrition needs and factors affecting the health and well-being of the aging and aged. Department permission is required for students not in the Human Nutrition or Gerontology programs.
## DTC659 Development of the

Entrepreneurial Dietitian 3 hrs Advanced analysis of the process used by successful dietitians in the pursuit of an entrepreneurial career path. Focus will be on tools, techniques and resources necessary for both the experienced and entry-level practitioner. Department permission is required for students not in the Human Nutrition program.
Prereq: MGMT388 or DTC379

## DTC668 Proteins, Lipids and

## Carbohydrates

3 HRS
Investigation of the macronutrients and their properties, functions and appropriate contribution to energy and growth requirements in healthy and diseased people.

DTC669 Vitamins and Minerals 3 hrs Emphasis on interrelationships of minerals and vitamins in human metabolism.

## DTC67i Nutrition Therapy IV

 Experience4 HRS
Supervised practice experience in the medical nutrition therapy professional environment. Focus is on complicated disease states and the management of enteral and parental nutrition regimens.

DTC679/680/68i Special Topics i/2/3 hrs An experimental course designed to investigate specific topics of concern in the specialization area of study. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## DTC683 WORKSHOP

2 HRS
Examine the current schedule book for specific workshop topics.
Prereq: department permission

## DTC686/687/688/689 Practicum

 I/2/3/4 HRSSupervised work experience in field placement/ internship site determined by student and adviser.
Prereq: department permission
DTC690 Thesis III
I HR
Presentation of thesis research with emphasis on oral and written methods and skill development. Focus is on thesis defense and preparation of a poster presentation and manuscript.
Prereq: DTC692 and department permission

## DTC69i Thesis I

2 HRS
Application of the research process through development of a thesis project proposal for the culminating experience of the student's graduate program of study. Focus will be on writing chapters $1-3$ of the thesis.
Prereq: DTC500 and EDPS621

## DTC692 Thesis II

3 HRS
Execution of a research project and preparation of thesis as the culminating experience for the student's graduate program of study. Focus will be on revising chapters 1-3 and writing chapters 4-5 of the thesis.
Prereq: DTC691 and department permission
DTC695 Research II
3 HRS
Execution of a research project and preparation of a written report as the culminating experience for the student's graduate program of study. Focus will be on revising chapters 1-3 and writing chapters 4-5 of the research project report.
Prereq: DTC600

## DTC697/698/699 Independent Study

 I/2/3 HRSAn intensive study of a selected professional problem, under the direction of a faculty adviser.
Prereq: department permission

## Early Childhood Education Courses

ECE590/591/592 Special Topics I/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. Students may elect this course more than once, provided different topics are covered. Prereq: department permission

## ECE597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems. The completed study must give evidence of the student's ability to select a problem and set it up and pursue it to satisfactory completion. Must be done with approval of a full-time member of the faculty.

ECE6oo Trends and Issues in Early Childhood Education 2 hrs Study of the historical base of early childhood education, exploration of current trends and issues related to the care and education of chil-
dren from birth through age eight. Examination of research on issues affecting young children, their families and society.

## ECE6or Helping Young Children

 in Crisis Through Curricular Activities2 HRS
Investigates how stress and crisis affect young children. Examines theory and research related to violence in home and community, maltreatment, death, divorce, parental substance abuse, inadequate health care and housing. Explores specific curriculum strategies to help children develop resiliency.

## ECE602 Implementing Appropriate

Early Childhood Programs 2 hrs Overview of program models and teaching strategies appropriate for children birth through age eight. Critical examination of developmentally appropriate practice, investigation of program goals guidance and management approaches, schedules, learning environments, sure of technology, and inclusions of diverse children.

## ECE6o3 Professional Development in

Early Childhood Education 2 hrs This course is designed for teachers, program directors and school principals in early childhood settings to learn about themselves as professional leaders and to develop communication skills and strategies that assist in staff development and the supervision of other adults.

## ECE604 Directing a Child Care

## Program

2 HRS
In-depth study of directing a child care program including determination of need, legal requirements, selection of equipment and personnel, budgeting, record keeping, working with families and community, and implementation of program goals.
Prereq: ECE602 or instructor's permission

## ECE6io Family, School and Community Partnerships in Early Childhood Education <br> 2 HRS

Examines the impact of partnerships among families, schools and communities on the education of young children. Course will focus on four broad themes: needs of families; parenting styles; diversity of families; and models of family, school and community involvement.

## ECE6i3 Curriculum Frameworks in

Early Childhood 2 hrs
This course provides an in-depth examination of the curriculum frameworks and standards in early childhood education. Materials from national early childhood and subject area organizations will be analyzed. Appropriate curriculum for children from birth through eight years, including those with special needs and from diverse cultures, will be investigated.

## ECE6is Social Relationships \& <br> Competence in Early Childhood Settings <br> 2 HRS

This course provides an in-depth examination of young children's social/emotional devel-
opment, self-esteem and feelings of competence. Students will study theories, principles and strategies, as well as adult roles and special problems of children's behavior. Applications will be made to early childhood and elementary education.

ECE618 Play and Human Development 2 hrs The phenomena of children's play and its relationships to developmental processes will be examined. Definitions, perspectives, theories and their implications for classroom practice in early childhood and elementary education will be considered. Observations and analyses of live play episodes will be conducted by the students.

## ECE64i Developmental Assessment of the Young Child: Theory and Practice 2 hrs

Theory and procedures applicable to the evaluation and assessments of the young child and current issues.

ECE679/680/68i Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. Students may elect this course more than once, provided different topics are covered.
Prereq: department permission

## ECE693 Seminar: Early Childhood

Education
2 HRS
Course includes a systematic analysis of issues and research areas in early childhood education. Serves as the capstone experience in the master's degree in early childhood education. Students pursue and in-depth investigation of a topic related to the field.
Prereq: 24 credit hours in early childhood education M.A. program and department permission

## ECE697/698/699 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems. The completed study must give evidence of the student's ability to select a problem and set it up and pursue it to satisfactory completion. Must be done with approval of a full-time member of the faculty.

## Economics Courses

ECONsoo Foundations of Economics Analysis

3 HRS A study of microeconomics, macroeconomics and international trade designed for graduate students who have not taken economics at the undergraduate level. Topics include supply and demand analysis, elasticity, profit maximization, market structure, market failure, unemployment, inflation, fiscal and monetary policy, and international economics. Not open to students who have had ECON201 and ECON202.

## ECON soi Macroeconomic Theory and

 Policy3 HRS National income analysis, employment theory, monetary theory and practice, and their application to economic policy. Not open to students who have had ECON301.
Prereq: One 100-, 200-, 300- or 400-level course in economics and MATH104

## ECONsoz Microeconomic Theory and Policy <br> 3 HRS

Analysis of the economic behavior of individuals and firms under various market conditions, the determination of relative prices, the allocation of resources and related problems. Not open to students who have had ECON302.
Prereq: any one 100-, 200-, 300- or 400-level course in economics and MATH104, or equivalent

ECONso4 Consumer Economics 2 hrs Current economics and consumer economics concepts and issues. Topics include basic economic concepts, the Michigan Standards and Benchmarks for Economics Instruction in public schools, consumer credit issues, understanding monetary and fiscal policies and international economics. The course is designed to serve individuals who are now teaching or expect to be teaching consumer economics units in K-12 settings. Not open to economics majors.

## ECON sos Collective Bargaining in

Public and Private Sectors 3 hrs Study of the institutions and practices of collective bargaining in both private industry and the public sector, starting with the origins of collective bargaining in blue collar professions and the public sector, and ranging from the local school district to the federal government. Not open to economics majors.
Prereq: ECON500
ECONso8 International Trade 3 hrs
A study of the causes and economic effects of trade; commercial policies and their effects on trade; trade issues and conflicts; and international factor movements.
Prereq: ECON501 and ECON502

## ECONso9 International Monetary

 Economics3 HRS
A study of the foreign exchange market, exchange rate systems, the balance of payments, macroeconomic aspects of international trade, and the institutions and problems of the international monetary system.
Prereq: ECON501 and ECON502
ECON 5 io Applied Economic Statistics 3 hrs Application of statistics and quantitative analysis to economic problems, using computer techniques.
Prereq: ECON310 or equivalent
ECONsii Mathematical Economics 3 hrs Study of economic models, matrix algebra and linear economic models, linear programming and game theory, optimization problems and calculus of variations.

## Prereq: MATH119 or MATH120, and

ECON301 and ECON302, or equivalent

## ECONsis Econometrics: Theory and

 Applications
## 3 HRS

Study of simultaneous-equation systems: structured, reduced and final-form models; the analysis of univariate and multivariate timeseries models; the development of estimation and forecasting techniques, and dynamic simulation; and the use of models for policy issues.
Prereq: ECON415 or equivalent
ECONsif Economic Analysis of Law 3 hrs Application of microeconomic theory to the analysis of laws and legal systems. Introduction to Game Theory within the context of property rights, contracts and dispute settlements. Some comparison of American laws with those of Europe and Japan.
Prereq: ECON301, ECON302 and ECON310, or equivalent

ECON520 Analytic Labor Economics 3 hrs Application of microeconomic theory in analyzing labor market behavior. Topics covered include labor supply, labor demand, investment in human capital, worker mobility and a critique of the microeconomic approach to labor economics.
Prereq: ECON301 and ECON302, or equivalent

## ECON527 Women and the Economy in Comparative Perspective 3 hrs

 Theoretical analysis of women's labor market status. Study of labor force participation, economic restructuring, global division of labor and policy approaches. Emphasis on comparison of the United States with other industrialized countries.Prereq: ECON301 and ECON302, or equivalent

## ECON534 Regional and Urban

## Economics

3 HRS Examination of problems of economic adjustment and development of regions, including inner city and metropolitan areas. Mass transit, public finance, housing, economic base studies, race distribution and poverty will be examined.
Prereq: any two courses of 100-, 200-, 300-, 400or 500-level of economics

## ECON536 Advanced Health

Economics
3 HRS An analytical approach to the study of medical care services. Emphasis is on the application of economic and statistical concepts and techniques in the analysis of health care issues and problems. Current health care policy issues and recent changes in medical markets are examined.
Prereq: ECON415 and ECON436, or equivalent
ECON540 Monetary Economics 3 hrs
The development of monetary and central banking theory; policy applications and limitations in the context of the relationships among money, prices, national income and the balance of payments.
Prereq: ECON301 or equivalent

## ECON 545 Economic Forecasting and

 Policy3 HRS
Examines the use of macroeconomic theory and forecasting techniques in the formulation and evaluation of economic stabilization policies.
Prereq: ECON301 and ECON310, or equivalent

## ECON5so Public Finance: Analysis and Policy <br> 3 HRS

Detailed theoretical analysis of the problems of budgeting and budget techniques; methods to evaluate expenditures, efficiency and equality considerations in tax policy; problems of stabilization policy and growth policy; and evaluation of the affect and importance of national debt.
Prereq: ECON301 and ECON302, or equivalent

## ECON5si State and Local Government Finance <br> 3 HRS

Economic analysis of expenditures, revenues and debt management of state and local governments.
Prereq: ECON301 and ECON302, or equivalent

## ECON56o Economics of Industrial

 Organization3 HRS
The enterprise sector of a capitalist economy; incidence of competition and monopolistic techniques in various industries and markets; market structure, conduct and performance; mergers and concentration and public policies.
Prereq: ECON301 and ECON302, or equivalent

## ECON56i Economics of Multinational

## Enterprise

3 HRS
Economics of international competition and monopoly. Analysis includes studies of direct foreign investment, national economic antitrust policies and the multinational firm and its relation to trade and economic efficiency.
Prereq: ECON301 and ECON302, or equivalent
ECON 562 Government and Business 3 hrs The political and economic functions of government, business corporation and financial mergers, direct control of business, control versus governmental ownership of utilities, governmental controls of agriculture and natural resources, the responsibility of government in maintaining employment.
Prereq: ECON301 and ECON302, or equivalent

## ECON580 International Trade: Theory

 and Policy3 HRS
Study of the principle of comparative advantage, the determinants of the commodity composition of trade, international factor movements and commercial policies.
Prereq: ECON301 and ECON302, or equivalent

## ECON58i The International Monetary

 System3 HRS
Theoretical and empirical examination of international monetary issues including the balance of payments, fixed versus flexible exchange rates, stabilization policies in an open economy, disturbance transmission mechanisms and interdependence, institutions.
Prereq: ECON301 and ECON302, and equivalent

## ECON 585 Economic Growth and

DEVELOPMENT 3 HRS Conditions, courses and consequences of growth and development; instruments of expansion and control, and important theories and models of growth. Economic growth in both the United States and underdeveloped countries.
Prereq: ECON301 and ECON302, or equivalent

## ECON 586 Economic Planning 3 hrs

 This course examines economic planning techniques, including macroeconomic growth models, input-output analysis and linear programming. It investigates the implementation of economic planning in developed economies, with specific reference to indicative planning and industrial policy in France and Japan.Prereq: ECON301 and ECON302, or equivalent

## ECON587 Case Studies in Economic <br> Development

3 HRS
Survey of economic development in selected countries or regions with emphasis on development policies, theoretical applications and economic structures of countries or regions surveyed.
Prereq: ECON301 and ECON302, or equivalent
ECON $590 / 59 \mathrm{I} / 592$ Special Topics i/2/3 hrs An advanced-level course in a specific area of economics. Not more than six hours of special topics may be used on a degree program.
Prereq: ECON301 and ECON302, or equivalent

## ECON597/598/599 Independent Study I $/ 2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a member of the economics faculty.
Prereq: department permission
ECON6or Macroeconomic Analysis 3 hrs Study of theoretical and empirical examination of macroeconomic theories of the determination of income, employment, the price level, interest rates and economic growth in a domestic and world economy. The course may include the Classical, Keynesian, Monetary, Rational Expectations and Real Business Cycle schools of thought.
Prereq: ECON301 and ECON302, or equivalent. Coreq: ECON415 and ECON511

ECON602 Microeconomic Analysis 3 hrs Economic analysis of the behavior of individuals and firms, price determination in competitive and monopolistic markets, general static equilibrium and the allocation of resources.
Prereq: ECON302 and ECON511

## ECON604 Research Seminar in

 Economics3 HRS
Examines selected issues of research methodology, procedures and techniques. Students conduct individual research projects, present their findings in a seminar format and submit a research paper.
Prereq: ECON415 or equivalent

ECON6os Managerial Economics 3 hrs Application of economic analysis to decision making and business management, focusing on the areas of production and cost, as well as investment, pricing, demand estimation and economic forecasting.
Prereq: ECON310 or equivalent, $E C O N 501$, and ECON502.

ECON6o6 Applied Economics 3 hrs Integrates economic theory and quantitative methods, providing tools to formulate, estimate and evaluate micro- and/or macroeconomic topics. These may include: estimating demand functions for given periods, Engel curves, production cost, consumption, investment and money demand functions.
Prereq: ECON301, ECON302 and ECON415, or equivalent

ECON679/680/68I Special Topics $1 / 2 / 3$ hrs An experimental course for contemporary topics not provided in other departmental offerings. The content will change from semester to semester. Not more than three hours of special topics may be used on a degree program.

## ECON686/687/688 Cooperative

## Education $\quad 1 / 2 / 3$ hrs

 Four to six months of part- or full-time employment in a position in business, finance, government or labor that uses economic analysis. (See the Career Services Center for the availability of such positions.) The student and a faculty sponsor from the Department of Economics agree on a co-op activity, subject to the approval of the director of graduate programs in economics. A written report at the end of the employment period documents the use of economic analysis in the co-op position. Offered on a credithno-credit basis. The credit does not apply to the economics major. Maximum number of co-op experiences is two.Prereq: department permission
ECON69o/69I/692 Thesis I/2/3 hrs Completion of research problems and writing thesis.
Prereq: approved thesis proposal
ECON695 Seminar
3 HRS
A seminar in advanced economic theory or policy open only to degree students of the department.
Prereq: 12 hours toward M.A. degree

## ECON697/698/699 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem or group of problems under the direction of a member of the economics faculty.
Prereq: department permission

## Educational Leadership Courses

EDLDjoo Professional Educator<br>Development Program I/2/3 hrs For in-service professional and personal development. May be repeated for credit. Credits not applicable to an advanced-degree program.

## EDLDsog Educational Leadership in a Pluralistic Society <br> 3 HRS <br> Analysis of the educational administration issues

 presented in culturally pluralistic educational environments. Examination of sociopolitical context of schools, impact of dominant and subordinate groups and leadership challenges involved in striving for school success for all.EDLDsio Educational Organization 3 hrs An introduction to educational organizations and the structure of American schools; the authority and relationships of federal, state and local governments to education; and the role and function of education in society.

## EDLDsı3 Community Education and

Communtty Relations 3 hrs An exploration of the basic principles and philosophy of community education, its current status and relationship to education and interpretation of the educational institution to a diverse community. Emphasis on promoting public confidence in schools via two-way communication and community involvement in schools.

## EDLDsı4 Educational Leadership

Theory and Practice
3 HRS
The process and function of various educational leadership positions are explored, traditional and contemporary leadership theories are examined and critical leadership roles are identified.

## EDLDsis Instructional Supervision and <br> Program Evaluation 3 Hrs

Development of those attitudes and skills necessary for administrators as they supervise effective, positive instructional programs; problems, principles and procedures involving the evaluation of facilities, personnel, programs and services; development, application and analysis of evaluation instruments.
Prereq: EDLD510 and EDLD514, or permission of instructor

## EDLDsı8 Multimedia Technology for

 School Administrators 3 hrs An overview of multimedia applications for school administrators. Strategies for leadership, planning, decision making, integration and evaluation of multimedia in schools will be emphasized. Sessions will include lecture and hands-on practice.EDLD $590 / 591 / 592$ Special Topics i/2/3 hrs Experimental course(s) designed to investigate specific topics of concern in the specialization areas of study in educational leadership. Not more than six hours of special topics may be used on a degree program.

## EDLD597/598/599 Independent Study

 I/2/3 HRSAn intensive study of a problem under the direction of a University faculty member.
Prereq: department permission
EDLD607 Colloquium
2 HRS
Course(s) designed to explore specific leadership topics utilizing distinguished scholars and lecturers.

## EDLD609 Team Building and Consensus

 Decision-Making of Educational Leadership3 HRS
This course is designed as a skill-building class to help educational leaders increase their effectiveness in working with faculty, staff, school board members and/or community groups in collaborative decision-making.

## EDLD6ii Introduction to Adult and

Continuing Education
3 HRS A general overview of the topic of adult and continuing education to students for introductory purposes and as a basis for further concentration and study in selected advanced areas of adult education. This course should be a prerequisite for advanced study and includes philosophy; history; identification of adult objectives; knowledge of adult learners; and contemporary status, trends and issues in adult and continuing education.

## EDLD6iz Economics of Public

Education
3 HRS
An examination of the basic economic, fiscal and legal theories of support for education, tax structures, state aid formulas, federal aid and school budgets.
Prereq: EDLD510

## EDLD6iz Introduction to Higher

Education
3 HRS
An introduction to the study of higher education, including two- and four-year colleges and universities. The course is designed for persons interested in developing an understanding of the background, growth, purposes and practices of higher education in the United States.

EDLD6i4 Law for Higher Education 3 hrs An examination of the major legal aspects of the administration of institutions of higher learning.

## EDLD6is Collective Negotiations in

## Education

3 HRS An analysis of issues that may be encountered by school administrators and teachers in collective negotiations in education.

## EDLD6i6 Educational Facilities

## Planning

3 HRS Problems and procedures revealed through a plant-planning chronology that includes hiring the architect, the attorney's role, site acquisition, involving citizens, utilizing staff, the bond issue, and designing and constructing the building. Emphasis will be placed on renovating, closing, and alternative uses for existing buildings.

EDLD617 Administering Human
Resources in Education
3 HRS Development of an understanding of the issues, problems and practices involved in the administration of personnel programs in education. An in-depth exploration of the basic principles of staff administration and high-level morale. For prospective and practicing administrators.
Prereq: six hours in educational leadership

## EDLD62o The Principalship 3 hrs

The examination of the role of a school principal in: a) improving curriculum and instruction; b) the establishment of effective operations in a school; and c) establishing avenues for change by an awareness of innovations, materials, technologies and research that are relevant for the elementary, middle and high schools.
Prereq: six hours in educational leadership

## EDLD622 Organization and

## Administration of Higher

## Education

3 HRS An understanding of the structure and governance of higher education - two-year and four-year colleges as well as universities - including legal bases, external and internal constraints, functional patterns, administrative staff roles and responsibility, faculty organization and authority, and student participation in organizational structure.

## EDLD62s The Superintendency and

District Level Leadership 3 hrs In-depth studies in the practical knowledge and skills required to carry out effectively the responsibilities of district level administration including the role of the public school superintendent.
Prereq: six hours in educational leadership

## EDLD63o Legal, Ethical and

## Professional Issues of

Administration $\begin{gathered}3 \text { HRS } \\ \text { Alition of laws; development of legal princi- }\end{gathered}$ Operation of laws; development of legal principles; federal and state relationships to education; authority relationships to education; authority and liability of school boards, administrators and teachers; negligence; discipline and control; professional ethics and related issues.
Prereq: EDLD510 and EDLD514, or permission of instructor

## EDLD63i Human Relations Skills for Educational Leaders 3 hrs

 An overview of the need for, and functions of, various human relations in the leadership of educational institutions. Development of an understanding and practice of specific interactive strategies necessary for such leadership.
## EDLD632 Community College Leadership

3 HRS This course provides a historical overview of the development of American Community Colleges. The course focuses on the social forces leading to the community college movement, educational philosophies and multiple institutional missions. The roles and responsibilities of leaders in meeting the needs of diverse student
populations will be emphasized. Particular attention will be paid to the organizational structures and processes that shape administrative decision making in educational leadership.

## EDLD633 History of American Higher Education <br> 3 HRS

The study of higher education demands the understanding of historical context. The knowledge of history provides an understanding of the shape of present experience. The course will examine historical needs in higher education that have affected students, faculty, staff and trustees in terms of traditions, customs, values and practice.

EDLD634 Higher Education Finance 3 hrs This course will provide an overview of the economics and financing of postsecondary education in the United States. It will include an introduction to economics theory as applied to institutions of higher learning, financial trends in funding America's colleges and universities, federal investment in higher education, tuition and fee trends, and state policy and budgeting processes. The course will briefly review the basic elements of fiscal management at the institutional level.
Prereq: EDLD613

## EDLD63s Policy Analysis in Higher Education

## 3 HRS

This seminar concentrates on the vital role of public policy in shaping American higher education. The nexus between government and contemporary social and political issues affecting institutions of higher learning will be examined. The course is designed to assist students in gaining greater familiarity with identifying, analyzing and evaluating specific policies.

## EDLD636 Legal, Ethical and Policy

Issues i Student Affairs 2 hrs The purpose of this course is to provide an understanding of those legal, ethical and policy issues facing departments in student affairs. To assist in this understanding, an overview of legal and ethical and policy issues as they relate to major functional areas within student affairs.

EDLD660/EDPS660 Grantwriting 2 hrs This course is designed to help students develop and improve their grantwriting and grantsmanship skills and knowledge. The course topics include, but are not limited to, developing a fundable idea, writing a quality proposal and locating sources of funding.

EDLD679/680/68i Special Topics i/2/3 hrs Special experimental offerings of the educational leadership program. Not more than six hours of special topics may be used on a degree program.

EDLD682/683/684/685 WогкSHOP I/2/3/4 HRS Special topics of educational leadership designed to maximize student participation. Emphasis on the workshop method of teaching and learning. Topics to be selected. (See current schedule.)

EDLD686/687/688/689 Master's
Internship in Educational
Leadership I/2/3/4 HRS
Training in administration through actual supervised experience. Arrangements must be approved by adviser and director of the intern program prior to registration. Enrollment limited. Offered on a credit/no-credit basis.
Prereq: department permission Majors only

## EDLD694/695/696 Seminar in

Educational Leadership I/2/3 hrs Broad or special topics of educational leadership. Topics to be selected. (See current schedule.)

## EDLD697/698/699 Independent Study

 I/2/3 HRSAn intensive study of a problem under the direction of a University faculty member. Offered on a credit/no-credit basis.
Prereq: approval of adviser, 10 hours in educa-
tional leadership and department permission
EDLD7io Leadership Theory 3 hrs
Theories and models of administration and leadership; general theories and research in leader behavior.
Prereq: admission to the specialist or doctoral program in educational leadership, or permission of instructor

## EDLD7i2 Analysis of Research in

Administration
3 HRS
Emphasis on contributions of research in the behavioral sciences to educational leadership. Critical readings of the research of psychologists, sociologists, political scientists and others that have special meaning in understanding such concepts as leadership, organization, power, authority, communication, innovation and decision making.
Prereq: six hours in educational leader-
ship, EDPS621, EDPS677, EDLD640 and

## EDLD710

EDLD713 Field-Based Research 4 hrs Development and completion of a field- based research study. Offered on a credit/no- credit basis. Prereq: EDLD712, EDPS677, and department permission

## EDLD7i4 Data-Driven Decision Management for Educational

 Leaders3 HRS
The decision-making process in educational organizations will be explored from multiple perspectives. This course will focus primarily on understanding existing perspectives on datadriven decision management and applying these perspectives to practical situations in education. This course will only be available to students in the Doctor of Education in Educational Leadership program or the Specialist of Arts in Educational Leadership program.
Prereq: admission to Specialist or Doctoral program
EDLD740 Organizational Theory 3 hrs Various theories, approaches and methods of organizing educational institutions. Concern with design, purposes, processes, problems and
issues of organizational structuring and change. Examination of organizational environment and informational organization. Open to specialist and doctoral students only.

EDLD779/780/78i Special Topicsi/2/3 hrs Intensive study of a topic of current relevancy. Not more than six hours of special topics may be used on a degree program.

## EDLD786/787/788/789 Internship in Educational Administration $1 / 2 / 3 / 4$ HRS

Provision of an opportunity for the graduate student at the specialist's level to develop administrative skills by working under the direction of an experienced administrator. Arrangements must be approved by adviser and director of the intern program prior to registration. Offered on a credit/no-credit basis.
Prereq: department permission
EDLD790/79I/792 Thesis $\quad$ I/2/3 Hrs Intensive study of a problem or group of problems under the direction of a faculty member.
Prereq: approval of adviser and departmental requirements for thesis

## EDLD794 Advanced Seminar in

Educational Administration 3 hrs
Intensive study of selected problems in administration and supervision.
Prereq: admission to doctoral program in educational leadership

## EDLD797/798/799 Independent Study

 I/2/3 HRSIntensive study of a problem under the direction of a faculty member. Offered on a creditno-credit basis.
Prereq: approval of adviser, 10 hours in educa-
tional leadership and department permission

## EDLD8io Ethics and Policy Analysis for

 Educational Leaders 3 hrsDesigned to equip students with analytical skills for confronting ethical issues in business, education, research, nursing and government. Mastery of the ethical process - a strategy for making good decisions. Critical thinking about ethical problems in professional settings. Analysis of selected educational and governmental policies from an ethical base using diverse views of professional moral duties as a screening device.
Prereq: admission to the doctoral program in educational leadership

## EDLD82o The Politics of Educational

 Leadership3 HRS
This course will examine the exercise of political power in education. It is designed for the educational leader who must deal with the impact of politics on managing and leading educational institutions.
Prereq: admission to the doctoral program in educational leadership

## EDLD895 Dissertation Research

 Seminar2 HRS This seminar is designed for the doctoral student who has identified the topic for his or her dissertation research and will focus on the production and evaluation of proposals for the doctoral dissertation. Offered on a credithocredit basis.
Prereq: permission of student's academic adviser

## EDLD896/897/898/899/900 Dissertation Research <br> I/2/4/8/I2 HRS

These courses are designed for the doctoral student who is working on his or her dissertation research. Enrollment in the various courses will reflect the student's effort on the dissertation in a given semester. Offered on a creditno-credit basis. Prereq: admission to candidate status and successful completion of EDLD895

## Educational Media and Technology Courses

## EDMTjoo Professional Educator

Development Program $\quad 1 / 2 / 3$ hrs
For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

## EDMTso7 Introduction to

Microcomputers
2 HRS
This introductory course will (1) build confidence and competence for educators with limited computer experience and (2) raise awareness of implications of computer technology in education. This course is not included as part of the program of study in the educational technology concentration. Offered on a creditno-credit basis.

## EDMT525 Image Processing for

2 HRS
EDMT525 is designed to help educators learn to integrate image processing technology into a classroom learning environment. Image processing is a tool used by research scientists that has proven to be excellent in promoting learning through exploration and discovery, especially in the areas of mathematics, science and geography.

## EDMT526 Microworlds: LOGO for <br> Educators <br> 2 HRS

Introduces students to the Logo computer language, its application in education, its underlying philosophy, and the "Logo debate" within the educational research community and its implications for the field of educational computing. Students will program individual projects in different Logo languages.
Prereq: competency in using a computer

## EDMTs28 Advanced Educational

Applications of Computers 2 hours A hands-on experience with educational application of computers. Students will learn how to use word processing software to prepare
tests, handouts, letters and papers; spreadsheet programs to maintain student gradebooks and prepare budgets; authoring systems to prepare computer-assisted instructional materials; database managers to maintain student and school records; and information utilities as information and communication media.
Prereq: EDMT507 and EDMT522, or permission of the instructor

## EDMT 530 Production and Utilization

 of Instructional Materials 2 hrs Introduces the student to advanced processes for the local production and utilization of instructional materials. Topics include computer graphics, presentation support, photography, video and desktop publishing.EDMT590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. Students may elect this course more than once, provided different topics are covered.
Prereq: department permission

## EDMT597/598/599 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## EDMT6or Technology and the Reflective

 Professional Educator 2 hrs Students will articulate an appropriate role for instructional technology in their professional roles as educators while critically examining the various roles for use of technology in the schools. Prereq: at least one course in educational psychology, or buman growth and development, or psychology
## EDMT6oz Technology and StudentCentered Learning <br> 3 HRS

Based on theoretical, philosophical and historical perspectives, students will plan for technol-ogy-enhanced student-centered learning in their classroom. Students will also participate in a field experience that enables them to compare methods and strategies of technology integration.

## EDMT6oz Technology Enhanced Learning Environments

 3 HRS This course addresses educators as managers of classroom environments in which children learn. Students use technology to support management of learning communities (classroom, school, global): assessment, record keeping and communications. They examine configurations for technology, staff development models and change process.
## EDMT618 Internet Resources for

 Educators 2 HRS Students will learn how to use the Internet and associated tools. They will learn how to connect to EMU's computer network as well as how to access the Internet.EDMT623 Instructional Design and
Development of Multimedia
Instructional Materials
3 HRS Introduces concepts and research related to instructional design (needs assessment, learner analysis, task analysis, specification of instructional objectives, selection of instructional strategies and media, message design, formative and summative evaluation) and the design of com-puter-based multimedia instruction. Using rapid prototyping and an authoring environment, students implement their multimedia design.
Prereq: EDPS602 and EDPS603

## EDMT625 Designing and Authoring

Instructional Multimedia 2 hrs EDMT625 will familiarize students with the concepts and research related to the design of computer-based multimedia instruction. Additionally, using rapid prototyping, students will implement their multimedia design.
Prereq: EDMT602

## EDMT627 Advanced Technical Issues in

Educational Technology 3 hrs Helps educators consider the nature and implications of complex multi-site technological innovations. The course also prepares students to give informed input into decisions impacting planning, purchasing and implementation of innovations.
Prereq: EDMT602, EDMT603

## EDMT628 The Design and Use of Online

## Resources for Education 3 hrs

 Students will examine the theory behind and use of telecommunications and video in education including Internet applications, online course management systems and other distance learning technologies. Students will design and evaluate online and distance learning projects, including informational web pages, multimedia online learning environments, and classroom management and assessment tools.Prereq: EDMT602, EDMT603, or EDMT618
(Students in the EDMT master's program take
EDMT602 or EDMT603 as a pre-requisite.
Students outside of the master's program take
EDMT618 as prerequisite.)

## eDMT633 Instructional Message

## Design

Introduces psychological principles for selecting and manipulating symbols to design effective messages for print-, media- and computer-based instructional materials. Students apply analytical processes to evaluate and design instructional materials which fulfill stated objectives which being authentic to the subject matter, appropriate to the specific learners and practical in terms of human and material resources.
Prereq: EDPS602 or EDPS603; EDMT623

## recommended

## EDMT638 Internet II: Creating Web <br> Content for Schools 2 hrs

This course is designed for educators and others who already have some familiarity with the Internet and are interested in learning how to use the World Wide Web for creating and placing
instructional and non-instructional materials on line. The focus is on the making of home pages and development and utilization of a Web site in an educational setting.
Prereq: EDMT618 or equivalent

## EDMT653 Issues and Emerging

Educational Technologies 3 hrs Students will examine method, theory, research foundations and issues confronting the field of educational technology and the role and impact of emerging technologies in education. Through projects and research, students will synthesize the learning from their EDMT foundation coursework and critically analyze implications for schools and classrooms.
Prereq: a minimum of 12 credit hours of graduate work in educational technology

## EDMT676 Using Computers for Data Analysis 2 hrs

Use of statistical packages available for microand mainframe computers to organize, code, create, edit, manage, store and process data. Compare statistical packages. Write research reports interpreting educational data results.
Prereq: EDMT601

## EDMT679/680/68i Special Topics $1 / 2 / 3$ HRS

Develops foundational knowledge of technical aspects of computers for classroom teachers and computer lab coordinators. Includes computer terminology, operating systems and compatibility, memory, control panels, networking, etc. for configurations of computers in school settings.

## EDMT686/687/688 Internship in

Educational Technology I/2/3 hrs Provides a supervised opportunity for students to apply knowledge and skills gained through classroom activity in a "real world" working environment. Internship sites and supervisory arrangements must be approved by the program adviser prior to registration.
Prereq: department permission
EDMT690/691/692 Thesis I/2/3 HRS
Prereq: department permission
EDMT693/694/695/696 Seminar i/2/3/4 HRS

## EDMT697/698/699 Independent Study

 1/2/3 HRSAn intensive study of one or more problems, under the direction of a University faculty member.
Prereq: department permission

## Educational Psychology Courses

## EDPSsoo Professional Educator

Development Program $\quad \mathrm{I} / 2 / 3$ hrs
For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

EDPSjor Psychology of Adolescence 2 hrs Study of the physical, cognitive, affective and social behavior and development of adolescents; their relation to family, peer group, school and society, with reference to youth here and abroad.

## EDPS502 Basic Concepts in Educational

 Рsychology2 HRS
Review and critical assessment of major issues in the areas of human growth and development, learning and technology, personality and mental health, and measurement and evaluation.

## EDPSso4 Nature and Identification of THE GIFTED 2 HRS

 The study of the nature of giftedness, the characteristics and needs of gifted students, and the issues involved in the identification and development of the gifted.
## EDPSsog Problems in Child

 Psychology2 HRS Deals theoretically and practically with the many concerns felt by teachers and parents in regard to the various problems children face. Includes home, family and school influences as creators of problems and approaches for dealing with these problems.

## EDPS535 Measurement and Evaluation

of Adult Learners
2 HRS
Designed to assist teachers of adults to become familiar with the construction and uses of teacher-made and selected standardized tests suitable for placement, diagnosis, individualizing instruction and evaluating student achievement. Treats measurement issues unique to adult learners.
Prereq: department permission
EDPS5so Motivation to Learn 2 hrs Explores a variety of motivational theories that influence academic achievement and success. The educator will develop strategies for increasing students' motivation to learn.

EDPS590/591/592 Special Topics i/2/3 hrs The content will include current relevant topics and will vary from semester to semester. Special topics not included in the usual course offerings, but within the domain of educational psychology, will be considered. See appropriate schedule.

## EDPS597/598/599 Independent Study I $/ 2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission
EDPS6oo Human Development 2 hrs The study of social, emotional, physical and mental growth processes and developmental stages from birth through adolescence and their implications for learning and teaching. Students are expected to pursue an in-depth analysis of research, theory and issues in the field commensurate with the experiential background which they bring to the course.

## EDPS602 Psychology of the Adult

Learner
2 HRS The course focuses on characteristics of the adult learner, adult learning styles, understanding learning theories, information processing, and principles of learning and motivation. Participants will discover their own strategies of learning, motivation and decision-making, and skills in creating rapport with adult learners. Emphasis will be on the application of learning-theory concepts and teaching skills to the participant's instructional setting.

## EDPS603 Principles of Classroom

Learning
2 HRS Major principles of learning are examined for their applications in a classroom setting. Recent contributions are studied and the value of learning theories for the teacher is discussed.

## EDPS6os Mental Hygiene 2 hrs

A study of the conditions and practices that promote mental, emotional and social well-being. Concepts are explored in terms of restoration, preservation and elevation of mental-health goals. This course emphasizes introspection and self-awareness, techniques and skills relevant to interpersonal relationships, and the application of principles and concepts to home, school and other social settings.

## EDPS606/607/608 Colloquium in

Educational Psychology I/2/3 hrs Academic seminars centered upon a broad field of study involving several different lecturers from within and outside of the department. See appropriate schedule for announcement.

## EDPS6if Piaget for Educators 2 hrs

 A systematic summary and analysis of Piagetian theory and research. Applications to the helping professions from infancy through adulthood will be made. Students will conduct interviews with children, adolescents and/or adults and make recommendations for intervention. Students will evaluate educational materials, teaching strategies and instructional methods from a Piagetian framework.
## EDPS6i4 Psychology of Creativity for Educators 2 hrs

 A study of the various aspects of creativity; the person, the environment, the process, with emphasis on their implications for teaching. The course also will focus on teacher procedures and methods for facilitating students' creative behavior in the classroom.
## EDPS6i7 Children in Poverty:

Educational Implications 2 hrs Course analyzes the critical poverty conditions of young children and families, and implications for educators. Emphasis is on social-psychological development, educational advocacy and interventions that promote understanding of ethnic, cultural and socioeconomic diversity.

## EDPS62i Statistical Applications in

Educational Research
2 HRS
Emphasizes the role of statistics in hypothesis testing; statistical applications in visually presenting and summarizing data; computation of central tendency, variability, relationship and prediction indices; and interpretation of results.

## EDPS626 Principles and Issues in

Educational Assessment
3 HRS
Principles of good classroom assessment are explored in depth. Students will learn the characteristics of high quality assessment that apply to both classroom and standardized assessments. Current assessment topics, including state and federal legislation and mandates, and ethical and legal issues are investigated.

## EDPS627 Designing Classroom

Assessments
3 HRS
This course will address all types of classroom assessment. It will focus on development, selection and appropriate use of high quality assessment. The course will also address management of assessment and the relations among assessment, learning, and motivation.

## EDPS628 Analyzing Student

## Learning

3 HRS
Participants will use assessment data to analyze and improve learning. Students will evaluate all types of assessment data, including both classroom-based and standardized assessments. They will make recommendations about learning based on a thorough analysis of the information.

## EDPS629 Assessment and Program/

School Improvement
3 HRS
This course will focus on methods of 1) assessment, 2) program evaluation, and 3) accreditation and how they can be used to evaluate the effectiveness of programs offered by schools and universities to improve student learning.

## EDPS63I Measurement and

Evaluation
2 HRS
A study of the construction and use of teachermade tests, rating scales, questionnaires, checklists and similar measures. Also includes the administration of standardized tests and utilization of the results.

EDPS65i Inferential Statistics 2 hrs Inferential statistics, both parametric and nonparametric; theory of hypothesis testing.
Prereq: EDPS621 or equivalent
EDPS66o/EDLD66o Grantwriting 2 hrs This course is designed to help students develop and improve their grantwriting and grantsmanship skills and knowledge. The course topics include, but are not limited to, developing a fundable idea, writing a quality proposal and locating sources of funding.

## EDPS667 Principles of Educational

 Research3 HRS
Basic concepts in understanding and evaluating contemporary educational research, addressing both quantitative and qualitative research meth-
ods. The focus is on critical understanding of, rather than prouction of, research.

## EDPS674 Research Methods and

 Interpretation3 HRS
The understanding and application of research concepts, designs and procedures; organization, coding and calculation of descriptive statistics; use of statistical packages; critical evaluation of educational research; interpretation of results.

## EDPS677 Methods in Quantitative Research

3 HRS
Course provides students with a general understanding of different paradigms, key concepts, and ethical issues in research. Major emphasis is on the design and interpretation of quantitative research studies, including problem and hypothesis formulation, research design, data collection, data analysis and interpretation. Focus is on critical appraisal of published research.

EDPS679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## EDPS682/683/684/685 Wоrкshop in

Educational Psychology i/2/3/4 hrs Students will be provided practical and theoretical study in a selected topic area. Offered on a credit/no-credit basis.
Prereq: department permission

## EDPS687 Qualitative/Interpretive

 Research3 HRS
Course provides graduate students with a general understanding of different research paradigms, key research concepts, and ethical issues in research. The major emphasis of the course is on qualitative data-gathering methods, narrative inquiry, and interpretive analysis; including ethnography, phenomenology, action research, feminist research, case studies, grounded theory, and archival research.

EDPS690/69I/692 Thesis I/2/3 HRS Individual research conducted under the guidance of, and in consultation with, a thesis committee.
Prereq: department permission

## EDPS694 Seminar in Educational

Psychology 2 HRS Students in educational psychology prepare final culminating project or proposal for thesis.
Prereq: near completion of educational psychology program

## EDPS697/698/699 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem or group of problems under the direction of a faculty member. Must be done with approval of a full-time member of the departmental faculty.

## College of Education Courses

## EDUCsoo Professional Educator

Development Program $\quad 1 / 2 / 3$ hrs For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

## Engineering Management Courses

## EMsos Managing Engineering and

 Technology2 HRS An investigation of the functions and problems unique to managing engineering and technical operations. Topics include: engineering ethics and professionalism; managing research, design and other technical operations; technology impact; and the role of the technical professional.

## EMso9 Engineering Project

Management
2 HRS
A study of the planning and management activities associated with the implementation of a manufacturing or engineering project. Topics include: identification and sequencing of events, time and cost estimating, resource utilization and monitoring/evaluation of plans.

## EMsii Manufacturing Engineering <br> Fundamentals <br> 2 HRS

 A structured review of manufacturing engineering fundamentals including materials, product design, production systems, manufacturing processes, automated systems, quality, and manufacturing including preparation for the Certified Manufacturing Engineering Exam offered by Society of Manufacturing Engineers.EM558/QUAL558 Lean Production 2 hrs Study of lean practices across economic sectors. Class will focus on lean systems whose functions include elimination of waste, reducing costs, shortening cycle times, quality improvement, optimization of socio-technical systems and the process of continuous improvement.

EM57o Patents and Engineering Law 2 hrs This course investigates legal issues in engineering such as patents, trademarks, product liability and contacts. Case studies, court decisions and research are an integral part of the course.

## EM58o Engineering and Enterprise

Integration 2 hrs
The study of engineering and enterprise integration systems for engineers, managers and technologists, and a structured review for individuals planning to take the Certified Enterprise Integrator (CEI) and/or Certified Engineering Manager (CEM) Examinations. Topics include certification test preparation and taking techniques; the engineering and enterprise integration system; customer focus; people, teamwork and organization; shared knowledge systems; business processes; resources and responsibilities; and external enterprise influences.
Prereq: department permission

EM590/591/592 Special Topics $\quad 1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
EM597/598/599 Independent Studyi/2/3 hrs Opportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "Independent Study" and "Research Proposal Format" guideline sheets are available from the department.
Prereq: department permission

## EM636 Analysis of Manufacturing

## Processes

2 HRS
An advanced course in the technical aspects of manufacturing cast, formed and machined products. Emphasis is on the determination of production parameters, such as shapes, forces and temperatures required to process various materials.

EM64I Materials of Industry 2 hrs Selected industrial materials: sources, properties, characteristics, analysis and testing.

## EM649 Manufacturing Process

Planning
2 HRS
The design of the manufacturing process as required by product design specifications. Selection of processes, tooling, work-holding, gauging, routing and material handling, as well as the development of human interface.

## EM67o Design for Manufacture and

## Assembly

2 HRS
This course investigates the management of product and process design activities. It is intended for anyone involved in product design, manufacturing engineering, process engineering, or manufacturing management. The course investigates design for manufacturing and assembly, quality function deployment, value analysis, failure modes and effects analysis, error/mistake proofing, team dynamics and design for "X."
Prereq: EM511 or EM636
EM679/680/68i Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
EM684 Workshop
3 HRS
Students will be provided practical and theoretical study in a selected topic area. Offered on a credittno credit basis.
Prereq: department permission

EM689 Industrial Internship 2 hrs A field study of industrial theory and practice through internship experiences with cooperating industries. Designed for students desiring experiences beyond those obtained in their previous or present employment. Offered on a credit/no-credit basis.

## EM690/69i/692 Development Project

 I/2/3 HRSA theory application project conducted under the supervision of an adviser and departmental graduate committee.
Prereq: Department permission and 12 hours in one's graduate concentration

## EM690/691/692 Thesis

I/2/3 HRS
A research-oriented study conducted under the supervision of an adviser and departmental graduate committee, and under the guidelines described in the EMU Thesis Manual.
Prereq: department permission
EM693/694/695 Seminar I/2/3 HRS
A research-oriented course for graduate majors.
Prereq: department permission
EM697/698/699 Independent Study i/2/3 hrs Opportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "Independent Study" and "Research Proposal Format" guideline sheets are available from the department.
Prereq: department permission

## English Language and Literature Courses

Open only to students admitted to graduate programs in English language and literature. Others by department permission.

## ENGLsor Writing and Rhetorical

 Theory I3 HRS
The reading, study and analysis of representative selections from rhetorical theorists from the Sophists through the Renaissance. Emphasis on how to evaluate, explore and apply theory to writing and its teaching.
Prereq: graduate student in English

## ENGLso2 Writing and Rhetorical

 Theory II3 HRS
The reading, study and analysis of representative selections from rhetorical theorists since the Renaissance. Emphasis on how to evaluate, explore and apply theory to writing and its teaching.
Prereq: graduate student in English

## ENGLsoz Rhetorical Theory and the

## Teaching of Writing

3 HRS A thematic course in which students read, study and analyze representative selections from classical, medieval, renaissance and modern theorists. Emphasis on applying rhetorical theories to writing and language instruction.

ENGLsos Rhetoric of Science and
Technology 3 Hrs
Through reading, research and analysis, students will study theoretical positions, discourse conventions and stylistic features of writing done by professionals in scientific and technological fields.
Prereq: graduate student in English
ENGLsi4 Issues in Teaching Writing 3 hrs A review of the research and theory in teaching writing, with focus on the dynamics of writing and learning, and their relationship to evaluation and assessment of writing.
Prereq: graduate student in English

## ENGLsis Literacy and Written Literacy

 Instruction3 HRS Graduate seminar on acquisition of written literacy. Emphasis on current theoretical approaches to written literacy, and applications for teaching writing at secondary and post-secondary levels.
Prereq: graduate student in English

## ENGLsi6 Computers and Writing:

Theory and Practice
3 HRS
A review of current theory for constructing computerized composition and for applying computers in teaching writing at secondary and post-secondary levels.
Prereq: graduate student in English

## ENGLsi7 Topics in the Teaching of

 Writing3 HRS
An in-depth look at a specific topic in the teaching of writing. Topics vary from year to year, with offerings ranging from pedagogy topics to theory topics to specific theorists.
Prereq: ENGL514
ENGLsi8 Topics in English Education 3 hrs An in-depth look at a specific topic in English education. Topics vary from year to year, with offerings ranging from pedagogy topics to theory topics to specific theorists.
Prereq: ENGL514
ENGLs22 Writing Workshop 3 hrs
An advanced workshop seminar in creative writing, with sections in fiction, poetry or translation, as specified in the schedule. May be repeated for credit.
Prereq: graduate student in English or department permission

## ENGLs24 Advanced Technical Writing

## and Research

3 HRS
This course continues ENGL424 Technical Writing and is designed to prepare students to write professionally in business and industry. Students will research appropriate information and prepare oral and written reports, proposals, brochures and manuals.
Prereq: graduate student in English

## ENGL 525 Advanced Public Relations

 Writing3 HRS
Theory and practice of writing for public relations. Emphasis on writing to resolve real-world prob-
lems from corporate and agency public relations.
Prereq: graduate student in English
ENGL526 Topics in Technical
Communication
3 HRS
An in-depth look at a specific topic in technical communication. Topics vary from year to year, with offerings ranging from applied topics to specific theorists.
Prereq: ENGL524 or ENGL525

## ENGL527 Topics in Professional

Communication
3 HRS
An in-depth look at a specific topic in professional communication. Topics vary from year to year, with offerings ranging from applied topics to specific theorists.
Prereq: ENGL524 or ENGL525

## ENGL590/591/592/593/594 Special Topics I/2/3/4/5 HRS

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course more than once, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.
Prereq: graduate student in English
ENGLs95 Teaching Basic Writing at the College Level 3 hrs Designed to prepare future teachers of basic writing at the community college and/or college level. Course introduces theoretical and pedagogical issues related to defining basic writing and "basic writers" and provides opportunity for developing teaching strategies for work with students in basic writing courses.

## ENGL596 Teaching Composition on the College Level <br> 3 HRS

A course in the methods of teaching English composition, with particular attention to beginning courses on the college and junior college level. Required of all graduate assistants and open to other interested M.A. candidates.
Prereq: graduate student in English.

## ENGL597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem or research area not covered in regular courses; under the direction of a faculty member.
Prereq: candidate for the M.A.; permission of the graduate committee. Graduate student in English or department permission

## ENGL62i Research in Theory and

Practice of Writing
3 HRS
A course designed to prepare students in methods of research on writing, pedagogy, professional writing and written discourse. Frequent projects, requiring research and writing.
Prereq: nine hours of ENGL courses in written communications; graduate student in English

## ENGL675/CURR675 Eastern Michigan Writing Project Summer Institute

For practicing K-12 teachers across disciplines. Participants investigate and experience current practices in literacy instruction. Based upon National Writing Project assumptions, participants read, write and reflect upon their teaching.
Prereq: graduate student in English or department permission

ENGL679/680/68i Special Topicsi/2/3 hrs An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course more than once, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.
Prereq: graduate student in English

## ENGL692 Thesis

3 HRS
Students will design and complete an extensive research study under the guidance of a thesis director and committee.
Prereq: ENGL621 and department permission
ENGL693 Master's Writing Project3 hrs Students will design and complete four documents, including a research article for a professional publication, under the guidance of a project director and a committee.
Prereq: ENGL621 and department permission

## ENGL697/698/699 Independent Study 1/2/3 HRS

An intensive study of a problem or research area not covered in regular courses; under the direction of a faculty member.
Prereq: candidate for the M.A.; permission of the graduate committee; graduate student in English or department permission

## Elementary Science Courses

## ESCIsos Science in the Elementary

 School2 HRS A survey of subject matter and process skills utilizing current science texts and courses of study; readings in current literature; the construction and use of science materials; supply and equipment needs for elementary science. Not open to students who hold credit in ESCI302 or BIOL303.
Prereq: department permission
ESCI590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

ESCI594/595/596 Workshop: Elementary
Science Teaching
I/2/3 HRS
Workshops will be offered dealing with selected areas. Workshops emphasize student participation and are designed to offer practical experience and training, and theoretical study. Topics to be announced. (See current campus and Continuing Education bulletins.)

## ESCI597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems under the direction of a faculty member.
Prereq: department permission
ESCI679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## ESCI693/694 Seminar in Science

Education I/2 hrs Presentation of special reports and group discussions on selected topics. Offered on a credit/nocredit basis. Counts as a technique course.
Prereq: 20 hours in biology, botany, microbiology, zoology and/or elementary science at the 300-, 400 -, 500- or 600-level.

## ESCI697/698/699 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a faculty member.
Prereq: department permission

## English for International Students Courses

## ESLNsiz Academic Writing for Foreign Graduate Students 2 hrs

 This course addresses the particular need of foreign graduate students to be able to express their understanding of material in their academic disciplines.Prereq: a score of 80 on the MELAB or 500 on the TOEFL, with a TWE of 4; recommendation of academic adviser andlor ESL coordinator

## ESLNsis Graduate ESL Seminar in

Academic Communication 3 hrs This course is designed for non-native speakers of English to improve their oral communication skills for participation in graduate-level classes in their degree program. Students read authentic academic texts and develop skills and strategies for oral presentations and critical response. A major emphasis is on having students learn academic vocabulary and enhance reading skills.
Prereq: department permission.

ESLN590/591/592 Special Topics i/2/3 hrs An intensive study of a specific topic to be determined by the instructor's field of specialization and student interest. Not more than six hours of special topics may be used on a degree program.

## ESLN597/598/599 Independent Study I/2/3 HRS

Intensive study of a problem under the direction of a member of the graduate faculty. Not more than six hours of independent study may be used on a degree program.
Prereq: department permission

## ESLN642/648 English as a Second

 Language for Special Purposes: Business5 HRS EACH
A course for non-native speakers of English to improve their command of the English language for use in business. Emphasizes both oral and written communication skills, as well as vocabulary, grammar and pronunciation, in a business context.
Prereq: a score of 80 on the MELAB or 520 on the TOEFL and completion of ESLN416 Academic ESL Speaking and Listening

ESLN679/680/68i Special Topics i/2/3 hrs An intensive study of a specific topic to be determined by the instructor's field of specialization and student interest. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## ESLN697/698/699 Independent Study

 $1 / 2 / 3$ HRSIntensive study of a language-related problem for students of English as a second language, under the direction of a member of the graduate faculty.
Prereq: department permission

## Earth System Science Courses

## ESSC $520 /$ GEOGs2o GIS Introduction

 for Educators3 HRS
This course is intended as an introductory GIS course for educators with some computer experience, but no previous GIS experience. The course is designed to open up the world of Geographic Information Systems to the professional educators. The course will include readings and online discussions followed by hands-on exercises.
Prereq: a teaching certificate in science, or social science, or business application, or computer information technology or department approval

## ESSC522/GEOG522 Internet GIS for

 Educators 3 hrs This course explores the availability of internetbased GIS tools and data sources and their applicability to the development of K-16 curriculum materials. Participants will investigate a variety of online mapping tools, as well as sources of spatial data that can be integrated into a GIS. Learners will develop an understanding of thepurpose and need for accurate metadata when using Internet based data sources.
Prereq: a teaching certificate in science, or social science, or business application, or computer information technology or department approval

## ESSC $524 /$ GEOG 524 GIS As an

Instructional Tool in
Classrooms
3 HRS
This course surveys current instructional applications of Geographic Information Systems. Participants will explore strategies for integrating GIS within a variety of $\mathrm{K}-16$ instructional environments. In addition, learners will develop simple, introductory instructional materials intended to introduce students to Geographic Information Systems as a tool fro data display, symbolization and analysis.
Prereq: GEOG/ESSC520 and GEOG/ESSC522

## ESSC557 Field Investigations in Earth

 Science 6 HRS This six week summer session course, specifically designed for secondary teachers, emphasizes basic field data gathering techniques and data analysis. Exercises include investigations in Michigan and upper Mid-West geology, meteorology and environmental science that can be directly utilized in the classroom. The class consists of classroom instruction, fieldwork in local areas and a few multi-day trips. Admission to the graduate program in Earth Science Education is required.
## ESSC56s New Approaches to Teaching Earth Science <br> 3 HRS

This course will explore advanced methods for teaching Earth Science. Various ways to incorporate writing into the teaching of Earth Science will be discussed, including techniques for inserting writing into Earth Science without overtaxing the assessment process. Differentiation will be explored for both special education students and TAG students. Finally, advanced activities for use in the classroom will be examined. Available to Earth Science Education masters only. Admission to the graduate program in Earth Science Education is required.

## ESSCs66 Advanced Plate Tectonics for Educators <br> 3 HRS

This course, specifically designed for secondary teachers, is an in-depth examination of plate tectonics. We will examine continental drift, sea floor spreading, driving mechanisms, boundary interactions, origin of magma, earthquakes, consequences of plate dynamics and the tectonic history of the earth emphasizing the major orogenic events that shaped the planet. Available to Earth Science Education masters only. Admission to the graduate program in Earth Science Education is required.

## ESSC567 Paleoclimatology

3 HRS
Causes and effects of natural climate change throughout Earth's history. Topics include analytical methods used to reconstruct past climates, tectonic effects, interplay between oceanic and atmospheric circulation, ice ages climates and glaciations, corals and El Niño.

Emphasis is placed on events of the last 2.7 million years. Available to Earth Science Education masters only. Admission to the graduate program in Earth Science Education is required.

## ESSC569 Principles of Hydrology for Educators <br> 3 HRS

An examination of the physical aspects of water in the environment. The hydrologic cycle, water balances, drainage basin analysis and ground water characteristics are highlighted. Methods to teach these subjects at the secondary level are also introduced. Available to Earth Science Education masters only.

ESSC590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## ESSC597/598/599 Independent Study 1/2/3 HRS

An intensive study of a problem or group of problems, under the direction of a University faculty member.
Prereq: department permission

## ESSC665 Professional Paper 3 hrs

The student is expected to investigate some area of earth science or earth science educational theory or practice, gather and analyze information, draw conclusions to add to the body of knowledge and write a paper of publishable quality completed in consultation with a faculty advisor. Available to Earth Science Education masters only.
Prereq: ESSC470/565

## ESSC667/GEOG667 School GIS

Project
3 HRS School GIS projects emphasizing comprehensive mastery of GIS concepts and techniques in schools applications. Particular topics are chosen on requests in school administration, student services, student field research and student career development. These projects are selected and designed to enable participants to engage in using GIS for problem solving in our schools.
Prereq: GEOG/ESSC520 and GEOG/ESSC522

## ESSC669/GEOG669 GIS Lesson Plan <br> Development <br> 3 HRS

The course is focused on using State and National Benchmarks to plan, research and develop GIS lessons in a K-16 setting. In this course you will accomplish this by readings, lesson critiques and lesson development using Michigan Climb benchmarks.
Preereq: GEOG/ESSC524 and GEOG/ESSC667
ESSC679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times,
provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## ESSC697/698/699 Independent Study

 I/2/3 HRSAn intensive study of a problem or group of problems, under the direction of a University faculty member.
Prereq: department permission

## Finance Courses

## FINsoz Financial Principles 3 hrs

Provides beginning graduate students a solid foundation in the general principles of finance. Provides an appreciation of how businesses and households allocate scarce resources over time and when outcomes are uncertain. The primary focus is corporate finance; the course will also introduce financial markets and institutions, and investments. Admission to the MBA program is required.
Prereq: ACC501; Concurrent prereq: ECON500
FINs4o International Finance 3 hrs The course covers international aspects of financial investment, capital budgeting, risk analysis, joint ventures and acquisitions, forecasting and protecting against exchange rate changes, capital structure problems of multinational corporations, methods of financing, banking and financial reporting.
Prereq: FIN502
FIN590/591/592 Special Topics 1/2/3 hrs An in-depth study of a specialized area in finance. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## FIN597/598/599 Independent Study

 I/2/3 HRSDirected study of problems in finance not otherwise treated in department courses.
Prereq: department permission

## FiN6is Financial Markets and Institutions

3 HRS
The course provides an analytical foundation for understanding the need for, and characteristics of, financial markets. The role of commercial banks and non-bank financial intermediaries is developed in the broader context of the savinginvestment process in an economy.
Prereq: FIN502

## FIN62o Financial Administration

Policies
3 HRS
This course stresses the role of finance in strategic decision making with a view to enhance shareholders' value. Uses the case method of instruction. Topics covered include working capital management, capital budgeting, financing, investment banking, mergers and acquisition, and international finance. Admission to the MBA program is required.

Prereq: ACC501, ECON500, FIN502,
LAW503, MKTG510, POM503, MGMT505;
and MGMT600, DS602, MGMT604, IS605
Concurrent prereq: IS605

## FIN625 Securities Analysis

3 HRS
This course addresses the major issues of interest to investors and portfolio managers including the optimal allocation of wealth among assets, the valuation of risky assets and the measurement of investment performances of various financial instruments, such as common stocks, bonds, convertibles and options.
Prereq: FIN502

## FIN66o Advanced Financial

 Management3 HRS
This course develops conceptual foundations for making intelligent corporate financial analysis. Advanced concepts in modern corporate finance are examined including issues arising from risky corporate debt, the theory of optimal capital structure, agency theory and economic effects of taxation. Special topics include raising external capital, dividend policy and share repurchases.
Prereq: FIN620

## Fin67o Risk Management with Derivatives

3 HRS
This course introduces the basic concepts, principles, and practices of derivative securities with primary focus on options and futures contracts. The course will cover derivative markets, pricing of options and futures contracts, and financial risk management. Advanced hedging strategies and securities innovation including real options will be introduced.
Prereq: FIN502
FIN679/680/68i Special Topics i/2/3 hrs An in-depth study of a specialized area in finance. Not more than six hours of special topics may be used on a degree program.
Prereq: FIN620

## FIN697/698/699 Independent Study

 I $2 / 3$ HRSDirected study of problems in finance not otherwise treated in department courses.
Prereq: department permission

## General Foreign <br> Language and Bilingual-Bicultural Education Courses

## FLANs4o Cultural Issues in Language

 Teaching2 HRS
This course addresses prospective language teachers' need to understand the effect of various cultural values on language learning and teaching to develop techniques that will enhance their students' learning.
Prereq: TSLN503; TSLN521 or department permission

FLAN $590 / 591 / 592$ Special Topics $1 / 2 / 3$ hrs An intensive study of a specific topic to be determined by the instructor's field of specialization and student interest. Special topics courses may be repeated for credit. Not more than six hours of special topics may be used on a degree program.

## FLAN597/598/599 Independent Study $1 / 2 / 3$ HRS

Intensive study of a problem under the direction of a member of the graduate faculty. Not more than six hours of independent study may be used on a degree program.
Prereq: department permission

## FLAN6if Theory and Methods of

Modern Language Teaching 3 hrs The history, theory and techniques of modern language teaching.
Prereq: major or minor in foreign language or
department permission

## FLAN6ir The Proficiency-Based

Curriculum

## 3 HRS

This course focuses on the content of instruction, or curriculum, as redefined by the ACTFL/ETS Proficiency Guidelines, and as reorganized in terms of communication tasks and language functions, rather than grammatical principles.
Prereq: FLAN611

## FLAN6i3 Using Technology in the

Foreign Language Classroom 3 hrs This course focuses on the review, development and integration of audio, computer-assisted and video-interactive technologies in the foreign language classroom.
Prereq: FLAN611.
FLAN679/680/68I Speecial Topics i/2/3 hrs An intensive study of specific areas of foreign language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with departmental permission. Not more than six hours of special topics may be used on a degree program.

## FLAN688 Internship in Language and <br> International Trade <br> 3 HRS

 Provides an opportunity for the graduate student to extend theoretical classroom learning through working experience in an appropriate setting. The Foreign Languages and Bilingual Studies Department, in cooperation with the College of Business, will arrange and supervise suitable assignments in firms conducting international business. A minimum of 10 hours per week in the field will be supplemented by regular meetings with the faculty supervisors. Offered on a credit/no-credit basis.Prereq: department permission

## FLAN695 Seminar in Bilingual-

Bicultural Education
3 HRS Each semester, different topics are selected for intensive study by advanced students. The course consists of a review and discussion of contemporary issues in bilingual-bicultural education, following which, students select areas
for research. Emphasis in seminar meetings on exchange of ideas and information developed through the research. Taught in Spanish/English. Prereq: department permission

## FLAN697/698/699 Independent Study

 I/2/3 HRSIntensive study of a problem under the direction of a member of the graduate faculty.
Prereq: department permission

## French Courses

## FRNHs23 Contemporary French

 Scene3 HRS
An intensive disciplinary approach to French language, culture and literature. Material to be read in the original and to serve as a basis for class discussion in French. Assigned reading and oral reports.

FRNH545 Advanced French Phonetics3 hrs Study of the sound system of the French language including both theory and practice. Major focus on the International Phonetic Alphabet as it applies to French. Lecture and pracitcal exercises in class. In French.

FRNH 5 so French Civilization in Film 3 hrs The purpose of this course is to study a number of French films and distinguish between fiction and reality as portrayed in the film. Students will research the era and compare the events shown in the film with the societal or historical facts found in their research.
Prereq: FRNH443 or FRNH444
FRNH590/591/592 Special Topics i/2/3 hrs An intensive study of a specific area of French language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with departmental permission. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## FRNH597/598/599 Independent Study $1 / 2 / 3$ HRS

Intensive study of a problem under the direction of a member of the graduate faculty. Not more than six hours of independent study may be used on a degree program.
Prereq: department permission
FRNH6io Intensive French Abroad 6 hrs An intensive summer course offered in a French-speaking environment. Instruction emphasizes improvement of listening comprehension and speaking skill. Various levels of instruction suited to student needs. May be repeated for credit.
FRNH6i6 French (Four Skills) for Nonmajors

3 HRS
Introduction to and practice in four skills (listening, speaking, reading, writing) of French.

## FRNH6zo French Grammar and

 Syntax3 HRS An advanced course in grammar and syntax. Intended to give a solid basis for oral and written expression, and for teaching of French.

## FRNH62i Advanced Conversation in

## French

3 HRS A continuation of advanced conversation with emphasis on attaining fluency at all levels pertinent to professional and cultural needs. Discussions and oral reports on periodical literature. May be repeated for credit.

## FRNH646 French Economy and Business Practices I <br> 3 HRS

Advanced course in business communications, translation techniques and French business practices. Study of French economy, energy, industry, commerce, agriculture and services; demographic and political trends. In French.
Preveq: FRNH620 and FRNH621, or department permission

## FRNH647 French Economy and Business

 Practices II3 HRS
Continuation of FRNH646. Study of French economy as it relates to the European Union, the United States, the East, the developing countries and the francophone countries. Upon completion of this course, students are eligible to take language proficiency examinations, leading to the CCIP diplomas. In French.
Prereq: FRNH646 or department permission
FRNH679/680/68I Special Topics $1 / 2 / 3$ HRS An intensive study of a specific area of French language or literature, to be determined by the instructor's field of specialization and student interest. May be repeated for credit with permission. Not more than six hours of special topics may be used on a degree program.

FRNH692 Research Paper
3 HRS
An intensive research into a specific area of French language or literature to be determined by the instructor's field of specialization and student interest. May be repeated for credit with permission.
Prereq: department permission

## FRNH697/698/699 Independent Study I $/ 2 / 3$ HRS

Intensive study of a problem under the direction of a member of the graduate faculty. Not more than six hours of independent study may be used on a degree program.
Prereq: department permission

## Geography and Geology Courses

GEOGsi3 South American Lands 2 hrs A regional study of the countries of South America; resources, people and national cultures are stressed.
Prereq: GEOG321 or equivalent

## GEOG 518 Problems of Sub-Saharan

 Africa2 HRS
Individual research in selected problems in the geography of Sub-Saharan Africa.
Prereq: GEOG322 or equivalent

## GEOG520/ESSC520 GIS Introduction <br> for Educators <br> 3 HRS

This course is intended as an introductory GIS course for educators with some computer experience, but no previous GIS experience. The course is designed to open up the world of Geographic Information Systems to the professional educators. The course will include readings and online discussions followed by hands-on exercises.
Prereq: a teaching certificate in science, or social science, or business application, or computer information technology or department approval

## GEOG522/ESSC522 Internet GIS for

## Educators

3 HRS
This course explores the availability of internetbased GIS tools and data sources and their applicability to the development of $\mathrm{K}-16$ curriculum materials. Participants will investigate a variety of online mapping tools, as well as sources of spatial data that can be integrated into a GIS. Learners will develop an understanding of the purpose and need for accurate metadata when using Internet based data sources.
Prereq: a teaching certificate in science, or social science, or business application, or computer information technology or department approval

GEOG524/ESSC524 GIS As an
Instructional Tool in
Classrooms
3 HRS
This course surveys current instructional applications of Geographic Information Systems. Participants will explore strategies for integrating GIS within a variety of K-16 instructional environments. In addition, learners will develop simple, introductory instructional materials intended to introduce students to Geographic Information Systems as a tool fro data display, symbolization and analysis.
Prereq: GEOG/ESSC520 and GEOG/ESSC522

## GEOG53i American Cultural

## Landscapes 2 hrs

The diversity of the human geography of the United States will be explored in terms of representative cultural landscapes of selected regions. Historic characteristics of urban and rural landscapes in America will be analyzed by means of readings, audio-visual presentations and discussions.

## GEOG54i Material Cultures: A Disciplinary Overview

3 HRS
Introduces and examines material culture from the perspective of six or seven academic disciplines that make use of objects in their analysis of culture. Major emphasis is given to American material culture.

## GEOG546 Problems in Population

 Geography2 HRS
Readings, discussion and research of selected problems in population geography.
Prereq: GEOG361 or equivalent

## GEOG548 American Vernacular

Architecture 2 hrs
Vernacular structures are analyzed as aspects of material culture and cultrual landscape contributing to regional personality within the United States. Attention is given to old world antecedents, colonial development, and diffusion of regional forms from their colonial nodes. Focus will be on the materials and techniques used in construction.

## GEOG549 Cultural Landscape Interpretation

2 HRS
Principles of cultural landscape interpretation as well as the development of local interpretation keys are investigated. Analysis of cultural landscapes is carried out in lectures, field practice, discussion sessions and student reports.
Prereq: GEOG360 or equivalent

## GEOGs53 Urban and Regional

 Planning2 HRS
Philosophy, history, legal aspects and techniques of the planning process. Case studies illustrate the impact of planning on economic, social and political activities.

GEOG55s Comprehensive Planning 2 hrs An integration of planning tools, data sources, forecasting and standards to produce a comprehensive plan that contains components on land use, transportation and capital improvements.
Prereq: GEOG553
GEOG556 Zoning
2 HRS
This course will prepare students to understand, interpret and critique a zoning ordinance, and to become familiar with planned unit development and site plan review.
Prereq: GEOG553

## GEOGs57 Community Development and

Downtown Revitalization 3 hrs
Explores current approaches to community development in the context of downtown commercial revitalization. Particular emphasis is given to the use of historic preservation planning as a strategy for downtown revitalization. Components of a downtown preservation plan to be reviewed include history, urban design, architecture, economics, implementation and preservation law, and public policy.
Prereq: GEOG553 or GHPR530.

## GEOGg59 Urban Planning/Preservation

 Studio3 HRS
An interdisciplinary planning and preservation studio in which student teams analyze a revitalization need in a local community, collect data, develop a proposal and make a presentation at a public meeting.
Coreq: GHPR530

## GEOG563 Climate

2 HRS
Regional climates are assessed in terms of characteristic types and frequencies of weather, with emphasis on geographic and atmospheric causes of differences and variations. Data in a number of statistical and graphical forms are interpreted in evaluating and classifying climates. One hour lecture and two hours' laboratory per week.
Prereq: ESSC324 or GEOG562

## GEOGs67 Introduction to Coastal

Environments
2 HRS
Description and analysis of the physical and biogeographical processes of the coastal ocean, Great Lakes and inland lakes. Distribution and origin of the coastal environments; natural and human modification of beach, river valley, estuary, marsh, delta and coral reef environments. Classroom demonstrations and field trips.
Prereq: department permission

## GEOGs7o Rural Planning and

 Preservation2 HRS
This course informs students how to develop a rural plan and evaluate implementation alternatives.
Prereq: GEOG553 or GHPR530
GEOG57i Teaching of Social Studies 2 hrs Subjects included: selecting, securing, organizing, presenting and evaluating materials. Not open to students who hold credit in GEOG348.

## GEOG575 Interpretation of Aerial

Рhotography
3 HRS
Interpretation of black and white, color and color infrared photographs. Emphasis on photo interpretation, measurements and mapping. Class project and optional field trip. Not open to students with credit in ESSC405.
Prereq: MATH105 or equivalent
GEOG577 Geographical Literature 2 hrs An evaluation of journals, abstracts and government publications. Visits to local specialized resource centers to investigate maps and documents. Preparation of bibliographies and assessment of literature on selected topics in geography.

## GEOG579 Geographic Information

Systems
3 HRS
Use of computers for storing, displaying and manipulating spatial information. Principles of geocoding, data capture and data analysis. Applications include land capability, facilities management and locational analysis for land planning, environmental assessment and historic preservation.
Prereq: an undergraduate GIS or Cartography course

## GEOG58o Urban Environmental

## Management

2 HRS
Survey and evaluation of geologic, topographic, geomorphologic, hydrologic and atmospheric factors that potentially and actually have impact on urban development and environmental management.
Prereq: GEOG553

GEOG 58 I Advanced Environmental
Assessment
3 HRS
Preparation and critique of environmental assessments and site plans. Emphasis on current environmental problems, regulations, data interpretation and impact mitigation. Optional field trips.
Prereq: GPLN215 or GEOG553

## GEOG 82 Remote Sensing of Earth

Resources
3 HRS
Manual interpretation and microcomputer processing of various types of remote-sensing imagery. Application of this technology to landuse planning, environmental assessment, information systems and Third World development. Prereq: GEOG575

GEOG583 Cartographic Design 3 hrs Emphasis is on developing map-making skills, using a variety of instruments and techniques. Quality work is stressed to prepare for professional employment. Not open to students with credit in ESSC 401 or ESSC402 or equivalent.

## GEOG585 Geographic Information

Systems Applications
3 HRS A lecture and computer-based applied course using Geographic Information Systems to understand common geographic and geologic problems in local government and private industry. A significant part of the course consists of analyzine existing real-world applications that develop intermediate and advanced GIS skills in data collection, manipulation, analysis and presentation.
Prereq: GEOG579

## GEOG587 Cooperative Education in

Geography/Geology
3 HRS
A semester equivalent of full-time employment at a private firm, public agency or nonprofit institution that provides an applied experience for the graduate student. Participating students must be recommended to the Cooperative Education Office by a departmental faculty member. A written report is required at the end of the employment period. Credit on the geography and geology programs is subject to departmental approval. Offered on a credit/nocredit basis.
Prereq: graduate student status and enrollment in one of the department's graduate programs; admittance by application only
GEOG590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics courses may be used on a degree program.
Prereq: department permission

## GEOG597/598/599 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems, under the direction of a University faculty member.
Prereq: department permission

## GEOG667/ESSC667 School GIS

Project
3 HRS School GIS projects emphasizing comprehensive mastery of GIS concepts and techniques in schools applications. Particular topics are chosen on requests in school administration, student services, student field research and student career development. These projects are selected and designed to enable participants to engage in using GIS for problem solving in our schools.
Prereq: GEOG/ESSC520 and GEOG/ESSC522

## GEOG668 GIS Project

3 HRS
Study projects emphasizing the development and management techniques of comprehensive GIS programs in real-world applications. Projects chosen based on federal, state and local governments, especially in southeast Michigan and in private industry. Theses projects are designed to enable students to engage applied research, or problem-solving application, or both.
Prereq: GEOG579 and GEOG585

## GEOG669/ESSC669 GIS Lesson Plan Development

3 HRS
The course is focused on using State and National Benchmarks to plan, research and develop GIS lessons in a K-16 setting. In this course you will accomplish this by readings, lesson critiques and lesson development using Michigan Climb benchmarks.
Prereq: GEOG/ESSC524 and GEOG/ESSC667

## GEOG674 Professional Publication/

Report
2 HRS
Successful completion of this course will necessitate that the student write a research paper of publishable quality as determined by the faculty and identify a professional journal appropriate for the paper. A major professional report prepared for a public agency or private consulting firm is an acceptable alternative.
Prereq: GEOG687, GEOG688 or GEOG689,
and department permission

## GEOG677 Seminar in Methods and

## Research

2 HRS
Basic research techniques applicable to geography. Location and identification of source materials, statement and analysis of problems, and preparation and presentation of results of research.
Prereq: GEOG577

## GEOG678 Advanced Applications of

 GIS3 HRS
Study and practice GIS development and customization techniques so that the students can create easy-to-use graphical user interface for non-tech people to use, streamline GIS functions for complex GIS applications, couple geo-computational or domain-specific models within GIS systems and develop new GIS solutions and functions.
Prereq: GEOG579 and GEOG584
GEOG679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester.

Information on content can be obtained at department office. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
GEOG683 Field Studies in Michigan 2 hrs The geographic and geologic environment: oncampus sessions and field trips include both subject matter and methodological concerns. Write department for information on content. Offered as a two-week workshop in the summer session.

## GEOG687/688/689 Internship in

Geography/Geology $4 / 5 / 6$ hrs Supervised internship in some aspect of geography or geology that is of mutual interest to the student and the "public or private agency that would "employ" the student. This experience is designed to integrate academic training with practical application. This course may be taken only once.
Prereq: department permission
GEOG690/691/692 Thesis I/2/3 HRS An intensive study of a problem or problems, under the direction of a faculty member.
Prereq: department permission
GEOG694/695 Seminar 2/3 Hrs Research, reports and group discussions, emphasizing the distinctive concerns and methodology of geography. The particular topic that is examined will vary from semester to semester. Information regarding the content of a particular seminar may be obtained at the department office. Students may elect this seminar several times, provided the topic studies are different. Not more than six hours of seminar courses may be used on a degree program.
Prereq: GEOG577.

## GEOG697/698/699 Independent Study

 I $/ 2 / 3$ HRSAn intensive study of a problem or group of problems, under the direction of a University faculty member.
Prereq: department permission

## German Courses

GERN590/591/592 Special Topics i/2/3 hrs An intensive study of a specific area of German language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with permission. Not more than six hours of special topics may be used on a degree program.

## GERN597/598/599 Independent Study

 $1 / 2 / 3$ HRSIntensive study of a problem, under the direction of a member of the graduate faculty. Not more than six hours of independent study may be used on a degree program.
Prereq: department permission

GERN6io Intensive German in

## Europe

6 HRS
An intensive summer course offered in Austria or Germany. Instruction emphasizes improvement of listening comprehension and speaking skill. Various levels of instruction suited to student needs. May be repeated for credit.

## GERN6zo Advanced German Syntax and

 Composition3 HRS
An advanced course in grammar, syntax and composition. Intended to give a solid basis for oral and written expression.

## GERN62i Advanced Conversation in

German
3 HRS
A continuation of advanced conversation with emphasis on attaining fluency at all levels pertinent to professional needs.

## GERN646/647 German Business

 Practices3 HRS EACH
The course teaches the correct usage of German economic and financial vocabulary, and trains the students in the reading, writing and translating of German business communications. German language periodicals and journals are used.

## GERN679/680/68i Special Topics I/2/3 HRS

An intensive study of a specific area of German language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with permission. Not more than six hours of special topics may be used on a degree program.

## GERN697/698/699 Independent Study

 I/2/3 HRSIntensive study of a problem, under the direction of a member of the graduate faculty. Not more than six hours of independent study may be used on a degree program.
Prereq: department permission

## Gerontology Courses

## GERTso9 Older Adults and Chemical

 Dependency I hourThis course is a survey of the epidemiology, clinical presentation, public policy issues and current treatment models for geriatric chemical dependency. Emphasis will be placed on both clinical and policy issues related to access to treatment and the types of treatment available.

GERTsii Elders and Their Families 2 hrs Examines the nature and significance of family and family-like relationships in later life, including long-term marriage, widowhood, divorce, remarriage, adult-to-adult/parent-child relationships, grandparenthood, siblingship and friendship.

## GERTsiz Applied Psychosocial Aspects of Aging <br> 3 HRS

An interdisciplinary overview of the gerontological aspects including psychological, social/
psychological, sociological, and political and economic issues. Application will be made in such areas as leisure, education, housing and intergenerational issues.
Prereq: senior undergraduates or graduate standing

## GERTsi3 Intergenerational Programs and Services <br> 2 HRS

Learners will explode common connections between elders and youth, examine factors that support or hinder intergenerational relationships and develop an intergenerational program of service plan.

## GERTsi4 Caregiving and the

 Elderly2 HRS
This course introduces issues affecting families who care for frail or dependent older relatives. Students learn practical interventions with families and examine policies that affect them.

GERTjis Sexuality and Aging i hr Examines factors affecting sexual expression, capacity and relationships in later life; considers special population needs/issues (e.g., disabled elders, homosexuality, sexuality and dementia, HIV/AIDS, women).

GERTsi6 The Elderly and the Law i hr This course discusses the legal issues and implications surrounding health care, long-term care, public entitlement programs, termination of life support, guardianship and alternatives, and intergenerational family issues.

## GERTsif Developing Funding Proposals for Aging Programs <br> 2 HRS

This course is designed to provide the student with grantsmanship theory and an introduction to the basic skills needed to research and select appropriate aging funders, and develop grant proposals for funding aging programs.

## GERTsi8 Innovations in Alzheimer's Care <br> 2 HRS

This graduate-level seminar will provide an overview of dementia and its impact on quality-of-life issues for families and individuals with Alzheimer's disease and related conditions. Emphasis will be placed on exploring innovations in Alzheimer's care designed to accommodate dementia-related changes through the continuum of the disorder.

## GERTs23 Designing Programs for

 People with Dementia 2 hrs This seminar examines issues involved in designing meaningful programs that address the cognitive, physical and psychosocial needs of persons with dementia. A fieldwork assignment provides students the opportunity to design, implement and evaluate a small group program. Students may choose a site for this assignment.GERTs24 Families and Dementia 2 hrs This class looks at family caregiving of people with dementia by addressing primary concerns, needs, assessment issues and interventions appropriate to the early, middle and late stages of dementia, and the period after the family member's death.

## GERT528 Advanced Issues in Dementia

Care 2 hrs Seminar focuses indepth on assessment and treatment of Alzheimer's disease, Dementia with Lewy Bodies, Picks, Creutzfeldt Jakob disease and related disorders. An interdisciplinary team will facilitate discussions on specialized care issues. Students will participate in an innovative service-learning project involving inhome respite.

## GERT530 Assessment of Individuals with Dementia

2 HRS
Course examines in depth the components of a comprehensive geriatric assessment and ways to structure the assessment so that an individualized action plan can be developed for people with dementia.

## GERT532 Aging Through the Eyes of the Old <br> 2 HRS

 Course is designed to provide students with an opportunity to learn what it is to experience being old by reading journals and books written by or about older people who use their writings to come to terms with old age. Also, the class will delve into a number of theories that are helpful for understanding the aging process and the readings. Film, music and storytelling will be part of the learning experience.GERT590/59I/592 Special Topics i/2/3 hrs Content will change from semester to semester. An experimental course for subject matter not yet provided in other program offerings. Students may elect this course more than once, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.

## GERN593 Reading Knowledge of

 German3 HRS
This course (taught in English) teaches students how to read, understand and translate a variety of authentic German texts, including scientific writings based on the majors of the participants. Students will learn basic German grammar and the most important principles of translation as well as how to use dictionaries.

## GERT597/598/599 Independent Study I/2/3 HRS

This course will provide the opportunity for the selection and completion of an individual study under the direction of University faculty members.

GERT679/680/68i Special Topics i/2/3 hrs Content will change from semester to semester. An experimental course for subject matter not yet provided in other program offerings. Students may elect this course more than once, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.

## GERT688/689 Gerontology

 Practicum2/3 HRS
Integration and synthesization of knowledge and skills gained from other gerontology cours-
es and life experiences. Also, the humanities perspective in regard to gerontology and career opportunities, including visits to potential places of employment. Students who have not completed a field placement in a gerontology service setting will be required to complete a field placement.
Prereq: graduate standing and final semester of study

## GERT697/698/699 Independent Study

 I/2/3 HRSThis course will provide the opportunity for the selection and completion of an individual study under the direction of University faculty members.

## Historic Preservation Courses

## GHPR530 Introduction to Historic

 Preservation2 HRS
Survey of the growth of historic preservation in the United States. Identification of preservation techniques, and federal, state and private preservation agencies and legislation; value and objectives of preservation.

## GHPRs3i Preservation and Planning Law

3 HRS
This course is designed to introduce students to the legal and historical foundations of planning, zoning, and preservation, and the laws that govern current planning and preservation practices. Utilizing lectures, discussions, and readings, this class will help prepare students for professional careers in planning, historic preservations, and cultural resource management.

## GHPR532 Introduction to

Curatorship
3 HRS
The evolutionary role of the history museum curator in the 21st century will be covered, including fundamental duties, responsibilities, ethics and legal obligations in terms of collections development and stewardship. The role of the curator in the interpretation and exhibition of the collections artifacts will also be explored.

## GHPR533 Introduction to Historic

Administration
2 HRS
A general introduction to the field of historical administration is presented with an emphasis on the establishment and workings of historical museums. Attention is paid to the on-going functional needs of historical agencies, namely roles of key personnel, public relations, and collection management.

## GHPR534 Community Interpretation

and Appropriate Tourism 3 hrs Traces the origin and development of the community interpretation process and outlines its emerging role in the creation of appropriate tourism programs. The empowerment of local hosts to interpret their area's heritage, visitor behavior, operational issues and the range of potential heritage interpretation experiences will be discussed.

## GHPR 535 Heritage Interpretation

Planning
3 HRS
Extensive practice in the systematic planning of heritage interpretation programs, including analysis of heritage resources; target guest groups; intended programs, goals and objectives; themes and subthemes; desired emotional/ sensory experiences; factual concepts; chosen delivery methods; and evaluation scheme.

## GHPR537 Interpretive Programming for

 Organizations3 HRS
A survey of the existent interpretive programming of selected corporations, institutions and agencies. Practice in the development and proposal of comprehensive interpretive programs for organizations.
Prereq: GHPR534

## GHPR538 Historic Preservation and

Tourism
2 HRS
An exploration of the correlation between historic preservation and the heritage interpretation that will investigate the cultural landscape and built environment as integral elements of heritage tourism.
Prereq: GHPR530 or GEOG557
GHPR539 American Decorative Arts 3 hrs The most popular forms of American furniture used in the Colonies/USA from c. 1600 to the present will be covered. Emphasis will be on styles, room use, technological changes, and cultural and social patterns as they affected design, style, and maufacture of American furniture.

## GHPR546 International Preservation: <br> Historic Applications <br> 2 HRS

 Preservation's history is covered from its earliest international beginnings in the 16 th centruy to the present. Preservation's past is examined as to how it shapes the future. Attention is given to how historic preservation has evolved in different countries and the present appliations in each.
## GHPR 547 Problems in Architectural

 Interpretation 2 hrs The course deals with problems in dating historic structures. Analysis is based on style, construction methods and detailing. Students learn through slide lectures, field trips and term projects how to evaluate buildings for architectural significance.Prereq: ART429 or equivalent

## GHPRssi Principles of Building

 Technology2 HRS
This course covers the basic principles and terminology of American construction from the 17 th through the 20 th century. Focus will be given to how ideas, inventions, and specific technologies changed known construction methods.

GHPR552 Materials Conservation I 2 hrs An introduction to the materials used in conservation/restoration projects, in both architecture and museums, presented through lectures and hands-on field experiments. Attention will be given to the history and preservation
techniques of each material; and the composition, properties, and uses of each material will be addressed through lectures and readings.

## GHPR557 Community Development and

Downtown Revitalization 3 hrs Explores current approaches to community development in the context of downtown commercial revitalization. Particular emphasis is given to the use of historic preservation planning as a strategy for downtown revitalization. Components of a downtown preservation plan to be reviewed include history, urban design, architecture, economics, implementation and preservation law, and public policy.
Prereq: GHPR530 or GEOG553

## GHPRs58 Adaptive Use of Historic

 Structures2 HRS A critical exploration of the issues raised by adaptively used older and historic structures/ places through an assessment and discussion of real-life examples via current readings and site visitations.
Prereq: GHPR530 or GHPR557/GEOG557

## GHPR559 Urban Planning/Preservation Studio <br> 3 HRS

An interdisciplinary planning and preservation studio in which student teams analyze a revitalization need in a local community, collect data, develop a proposal and make a presentation at a public meeting.
Coreq: GEOG553 or GHPR530

## GHPR572 Funding Preservation

Projects
2 HRS
Student is exposed to planning, implementation and follow-up documentation of various types of historic preservation grants. Course also includes discussions on endowments, wills, bequests and financial planning, and development for historical agencies.
Prereq: GHPR530 or GHPR533

## GHPR587 Cooperative Education in

Cultural Resource Management 3 hrs A semester equivalent of full-time employment at a private firm, public agency or nonprofit institution selected to provide the student with a paid work experience in historic preservation. Participating students must be recommended to the Cooperative Education Office by a departmental faculty member. A written report is required at the end of the employment period. Credit on the historic preservation program is subject to departmental approval. Offered on a creditno-credit basis.
Prereq: department permission
GHPR590/591/592 Special Topics i/2/3 hrs An experimental course for subject material not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics courses may be used on a degree program.
Prereq: department permission

## GHPR597/598/599 Independent Study

 I/2/3 HRSAn intensive study of a problem or specifically focused subject matter pertaining to the field of cultural resource management, under the direction of a faculty member.
Prereq: department permission

## GHPR620 Preservation Research

Techniques
2 HRS
A research-intensive course designed to address preservation-oriented research problems, involving built environment and/or cultural landscape analyses as sources of applied research skills.
Prereq: GHPR530 and ART429 or equivalent

## GHPR63o Documenting Historical

Places
2 HRS
Lecture and practical experience in documenting the built environment. Techniques of architectural survey, researching the history and former occupants of a building, and preparation of a National Register nomination. Student projects and possible field trips.
Prereq: GHPR530 or ART429; and GHPR620

## GHPR63i Preservation Administration and Planning <br> 2 HRS

Study of cultural resource management objectives, strategies and techniques, including specific practice in the preparation of various types of National Register nominations, Department of the Interior tax certifications and a local historic district ordinance.
Prereq: GHPR530 or GHPR557/GEOG557 or GEOG553

## GHPR632 Interpreting the Historic

House
3 HRS
Issues in the interpretation of historic house museums will be key. Strategies for interpretation, including its story, mission, connection with the community, accessibility, and special events, will be the focus.

## GHPR636/637 Historic Preservation

3/6 HRS
Specifically arranged supervised field experiences and application of theoretical viewpoints to field problems in historic preservation.
Prereq: department permission

## GHPR638 Preserving Community

Character
2 HRS An exploration of the interrelated roles of historic preservation, environmental conservation, growth management and tourism as they relate to preserving the unique "community character" of places.

## GHPR6si Principles of Preservation

Technology
2 HRS
The course will focus on the specific principles related to the physical intervention and preservation of historic and older structures, utilizing actual case studies to illustrate these principles.

GHPR652 Materials Conservation II 2 hrs This course provides students with a thorough grounding in a number of sophisticated meth-
ods of material analyses, including computer-assisted optical stereology, particle induced x -ray emission and x-ray floresence. They have an opportunity to execute material analyses using these and other methods. The course format combines lectures and fieldtrips for "hands-on" application.
Prereq: GHPR552

## GHPR679/680/68i Special Topics $1 / 2 / 3$ HRS

An experimental course for subject material not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics courses may be used on a degree program.
Prereq: department permission
GHPR687/688/689 Internship 4/5/6 hrs Supervised internship in some aspect of historic preservation which is of mutual interest to the student and the public or private agency that would "employ" the student. This experience is designed to integrate academic training with practical application. A maximum of two internships is allowed totaling no more than eight semester hours.
Prereq: department permission
GHPR690/691/692 Historic Preservation Project
$1 / 2 / 3$ HRS
The student conceives his or her own idea for a preservation-related individual project. The student is responsible for the design or planning of the project and carrying it to completion. Required of all historic preservation majors; represents the student's culminating experience prior to graduation.
Prereq: department permission

## GHPR694 Seminar in Neighborhood

 Preservation2 HRS
The viability and desirability of neighborhood preservation is discussed and observed from the perspective of affected inhabitants and from the broader urban to national contexts.
Prereq: GHPR530 or GHPR559/GEOG559 or GEOG553

## GHPR695/696 Seminar in Preservation Issues <br> 2/3 HRS

This seminar will focus on research, group discussion and site investigations that illustrate the distinct issues facing historic preservation. Both methodology and practical applications of specific approaches, which will vary with each offering, will be addressed. This seminar may be taken more than once, provided the topics are different; no more than six hours of seminar credit may be applied to the degree program.

## GHPR697/698/699 Independent Study 1/2/3 HRS

An intensive study of a problem or specifically focused subject matter pertaining to the field of cultural resource management, under the direction of a faculty member.
Prereq: department permission

## Urban and Regional Planning Courses

GPLN $590 / 591 / 592$ Special Topics i/2/3 hrs An experimental course for subject material not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics courses may be used on a degree program.
Prereq: department permission

## GPLN597/598/599 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem or group of problems, under the direction of a University faculty member.
Prereq: department permission

## History Courses

Graduate courses (open to candidates for the M.A. in history or social science, and to students from other disciplines, who wish to take cognate hours in history).

Histsos Historical Method 3 hrs This course encompasses training in research strategies appropriate to a variety of historical resources, as well as instruction in the skills necessary for communicating the results of such research. A workshop approach offers discrete units in library and archive investigation, demographic and cartographic techniques and oral and local history, culminating in a research paper.

## HIST fio Studies in the History of $^{\text {s }}$

 Religion2 HRS Broad topics in one or more religious traditions, usually Hinduism, Buddhism, Judaism, Christianity and Islam. The current topic will be announced in the time schedule.
Prereq: one course in history, preferably history of religion

HISTsii Studies in Ancient History 2 hrs Intensive study of selected topics in classical Greek and Roman history during the period 500 B.C.-600 A.D.

## HISTsi4 Studies in Renaissance and

## Reformation History 3 hrs

An examination of major Renaissance and Reformation issues and developments in their historical setting.

## HISTsi7 Historical Background of

## Modern Britain

2 HRS
The history of Great Britain from 1815 to the present, with primary emphasis on institutional development. Political, economic, social and imperial problems will be examined, and Great Britain's role in today's world will be assessed.

HISTsi8 Studies in Recent German
History
2 hrs
World War I, the Weimar Republic, the rise of
national socialism and the national socialist state, World War II and contemporary Germany.
Prereq: HIST338 or equivalent

## HIST $_{520}$ French Revolution and

Napoleon, 1774-1815
3 HRS A study of the French Revolution and its Na poleonic aftermath. Emphasis is placed upon an understanding of the revolutionary movement, interpretation and significance for the future.

## HISTs2i Studies in the History of

Women in Europe
3 HRS
International struggle for suffrage, women in the French Revolution, women's work and theoretical issues in writing women's history.

## HISTs22 Studies in 20th Century

 Europe3 HRS
Topics in 20th century European history selected from the following examples: the World Wars, European communism, the fascist experience, the crisis of European democracies, the Cold War, political reconstruction and economic recovery and postwar social and cultural change.

## HIST $525 / \mathrm{WMST} 525$ Technology, Social

Change and the Role of Women 3 hrs This course will examine the nature and origins of technology, the influence of its historical development from classical to modern times on women in the United States and Europe and problems stemming from current technological advance.

HISTs29 History of Detroit 2 hrs History of Detroit from 1701 to the present, examining relations among economic, social and demographic characteristics in each major era. Use of primary sources and field visits to metropolitan Detroit sites will reinforce a major point of analysis, causes of change over time and the effects of those changes.

## HISTs3o Urban Communities in U.S.

## History

3 HRS
A study of the economic, spatial, physical, social and political structure and development of urban communities in the United States from the pre-industrial era to the present.

HIST53i Studies in Black History 3 hrs Selected major developments in the history of black Americans from 1619 to the present.

## HIST532 Studies in Native American <br> \section*{History}

3 HRS
A critical study of the current scholarship in selected chronological topics in the history of Native American peoples.

## HIST533 Studies and Techniques in

Local History
3 HRS
Topics drawn primarily from the history of southeast Michigan and the surrounding areas will be used to illustrate the nature of local history, the sources that can be used in its study and the ways in which this study can provide insight into developments of greater scope.
Prereq: HIST505

HIST 534 Social and Political History of Michigan

3 HRS
History of Michigan's development, dating from the French period, emphasizing settlement patterns, migration, immigration and ethnic groupings. Involves broad readings from sources placing Michigan within the context of U.S. development.
Prereq: one course in U.S. history or department permission

## HIST535 Studies in the History of the

Family in the United States 2 hrs The study of a significant issue or problem in the history of the family in the United States. The topic will vary from semester to semester.

## HIST538 Studies in Colonial American

 History2 HRS
Colonial American political, economic and social institutions; current scholarship and interpretation.
Prereq: HIST123 or equivalent

## HIST54i The United States, 1825-1860: Ferment and Reform 2 hrs

An intensive study of the reform movements of the era. Special emphasis is given to women, utopianism, antislavery, immigration, education, temperance, religion and the asylum.

## HIST543 Nationalism and

 Modernization in the Middle East and North Africa 3 hrsThe development of nationalism and modernization in the Middle East and North Africa from World War I to the present; political and social changes occurring in this developing area.

## HISTs47 19th Century Ideological

## Background of the Russian

## Revolution

3 HRS
Russian thought from the accession of Nicholas I (1825) until the Bolshevik Revolution. Major themes to be treated are the Slavophiles and Westernizers, socialism, anarchism, nihilism, populism, liberalism and conservatism.
Prereq: one course in modern European history
HIST550 20th Century Russia 2 hrs
Political, diplomatic, social and cultural developments in Russia from 1894 to the present.

## HIST555 Studies in Far Eastern

 History2 HRS
Study of selected eras and topics in Far Eastern history. The topic selected will be announced in the time schedule.
Prereq: one course in Far Eastern history
HisT 556 Studies in Chinese History 3 hrs Topics in different eras and areas of Chinese history. The one selected will be announced in the time schedule: for example, The Han Dynasty 202 B.C.-220 C.E.

## HIST56o Studies in Latin American

 History2 HRS An intensive investigation of selected political, economic, social and cultural topics in

Latin American history. The specific topics and chronological coverage are announced in the class schedule.
Prereq: one course in Latin American history
HIST583 Studies in the Civil War and
Reconstruction 3 HRS
Major problems of interpretation in the period from 1850 to 1877.

HIST584 Studies in the Gilded Age 2 hrs The United States moving into a modern phase after the Civil War, leaving behind the old frontier and the blacksmith economy to enter an era characterized by factories, large cities, a race for colonies and sociopolitical unrest.

## HIST585 Studies in 2oth Century U.S.

History
2 HRS Study of selected topics in the history of the United States from 1900 to the present. Topics may vary from semester to semester.
Prereq: one course in U.S. history

## HIST 586 United States in World

 Politics2 HRS
American foreign policy in the 20th century, the nation's transition to great-power status and its adjustment to the demands of that role.

HIST590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. May be repeated for credit. Not more than six hours of special topics may be used on a degree program.

## HIST $97 /$ /98/599 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems, under the direction of a University faculty member. A maximum of six hours may be applied toward a degree program. $A$ maximum of three hours may be taken in any one semester or session.
Prereq: department permission
HIST679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. May be repeated for credit. Not more than six hours of special topics may be used on a degree program.

## HIST684 Workshop in Michigan

## History

3 HRS
Intensive program using area archives to develop materials for elementary and secondary classroom use. Emphasizes bibliographical development, museum sources and designing a topical framework for teaching Michigan history.
Prereq: one course in U.S. history

## HIST687 Cooperative Education in

 History3 HRS
Four to six months of full-time employment in a business or industry chosen to provide practi-
cal experience in the student's major field. The cooperative education program consists of one or two work experiences alternating with fulltime attendance at the University. Offered on a creditno-credit basis.

HIST688 Historiography
2 HRS
A critical study of the writings, philosophy and influence of major historians.
Prereq: 15 hours of graduate credit in history
HIST689 Local History Internship 3 hrs Supervised internship in local history, mutually agreeable to student, faculty adviser and internship agency. Content varies with students' needs and interests and available placement opportunities. May not be repeated for credit.
Prereq: department permission
HIST690/69I/692 Thesis I/2/3 HRS
Intensive research into a historical problem and the preparation of a thesis consistent in substance and form with the standards of the historical profession. Offered on a creditnocredit basis.
Prereq: department permission

## HIST697/698/699 Independent Study

 1/2/3 HRSAn intensive study of a problem or group of problems, under the direction of a University faculty member. Not more than six hours of independent study may be used on a degree program. A maximum of three hours may be taken in any one semester or session.
Prereq: department permission

## Health Administration Courses

## HLAD sio Medical Care $^{\text {ent }}$

Organization
3 HRS
A theoretical approach to the medical care system that allows the consideration of the key problems and issues such as DRG-based prospective payment, alternative delivery systems and cost-quality tradeoffs.
Prereq: senior status with a minimum 2.8GPA

## HLADsii Health Law 3 hrs

Legal aspects of health law for the design, administration and regulation of health care services will be explored from the alternative perspectives of providers, reimbursement sources, government and professional accreditation. Contract, tort, advocacy, enforcement of regulations and other topics will be covered, as well as the controversial issues of the definition of life and death, informed consent, medical malpractice, liability and legal entitlement of health care services.
Prereq: department permission for undergraduates

## HLADsiz Reimbursement for Health <br> Care Services <br> 3 HRS

This is a survey of the full range of public and private sector methods of reimbursing health care services. The course covers all aspects of private
health insurance, Blue Cross and Blue Shield, Medicare, Medicaid, welfare health care reimbursement, government regulation of health insurance, national health insurance proposals and the problem of uninsured populations in the United States.
Prereq: senior status with minimum 2.8 GPA

## HLAD szo Healthcare Management

 Theory3 HRS
This course will provide a survey and synthesis of behavioral science theories relevant to healthcare management. Various models will be discussed that will help managers find and achieve the delicate dynamic balance between business performance and the mission of patient care.

HLADs2i Healthcare Finance 3 hrs The purpose of healthcare financial management is to provide finance procedures and techniques that assist healthcare managers in accomplishing the organization's purpose.

## HLAD 523 Medical Practice

 Management Care3 HRS This course will provide an overview of the managed care industry from the perspective of the physician practice. Topics that will be explored will include contract analysis, reimbursement under capitation, marketing, risk sharing and regulation.

## HLADs24 Healthcare Manager

 Strategies3 HRS
This course will identify and explore the fundamental interpersonal competencies that are essential for the healthcare manager's success.

## HLADsso Internship

2 HRS
This course is designed as an elective course for students who have completed the four didactic courses for the HLAD certificate and no significant practical experience in the content area of the certificate. Depending upon the background of the student between 240 and 300 contact hours will be required.
Prereq: HLAD520/524 and two content-specific elective courses. Students will be permitted to enroll in prereq courses concurrently.

HLAD $590 / 591 / 592$ Special Topics $1 / 2 / 3$ Hrs Topics of state, local and national importance in health services management, administration and policy. Offered only in response to special circumstances in the field of health services and faculty availability. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## HLAD597/598/599 Independent Study I/2/3 HRS

Supervised independent study, investigation, analysis or writing in collaboration with health administration faculty.
Prereq: department permission

## HLAD679/680/68i Special Topics I $/ 2 / 3$ HRS

Topics of state, local and national importance in health services management, administration and policy. Offered only in response to special circumstances in the field of health services and faculty availability. Not more than six hours of special topics may be used on a degree program.

## HLAD697/698/699 Independent Study

 I/2/3 HRSScholarship, original research and collaborative research, with health administration program graduate faculty.
Prereq: department permission

## Health Education Courses

## HLED545 Sex Education 2 hrs

Designed to provide a period of concentrated study and discussion about sex education for teachers, nurses, school administrators, clergy and interested representatives of community agencies.

HLED546 Alcohol Use and Abuse 2 hrs Designed to improve the quality of teaching in alcohol education and the quality of rehabilitative efforts by public and private agencies concerned with alcohol problems. Attempts to develop an understanding of the physiological, psychological and sociological factors related to the use of alcohol. Specifically, it is concerned with developing constructive attitudes toward the alcohol problem and dispelling prejudices, misunderstandings and myths, which obscure facts.

## HLED5so Theoretical and <br> Philosophical Foundations of <br> Health Education

3 HRS An overview of the history, philosophies, ethical considerations and theories underlying health education practice. Emphasis will be placed on current and future roles and functions of professional health educators in a variety of settings. Methods will include, discussion and classroom activities designed to enhance application of course content.

## HLEDsss Current Health Issues and

Trends
3 HRS An investigation of recent literature, research and practices in health education. Emphasis will be placed on applications to community, school and organizational settings. Methods will include lecture, discussion and classroom activities designed to enhance application of course content.

## HLEDs58 Health Education Methods

 and Materials3 HRS
An examination of the methods and materials utilzed in delivery of health education. Emphasis will be placed on educational strategies for individuals and groups in a variety of settings. Methods will include lecture, discussion and classroom activities designed to enhance application of course content.

## HLED $¢ 6$ School Health Education

Programming and Curriculum 3 hrs This course is designed to provide school health personnel with an opportunity to study and understand the function of the Coordinated School Health Program, with special emphasis on the classroom teacher. Methods will include lecture, discussion and classroom activities designed to enhance application of course content.
Prereq: HLED550 and HLED555

## HLEDs62 Health Education Program Planning <br> 3 HRS

A study of the various models and processes used in the development of health education programs. Students will gain skills necessary to plan health education programs for a wide variety of target populations and settings. Methods will include lecture, discussion and classroom activities designed to enhance application of course content.
Prereq: HLED550 and HLED555

## HLEDs6s Women's Health <br> 3 HRS

This class will provide an integrated, multidisciplinary approach to women's health. Methods include: lectures, discussion, cooperative group activity, self-awareness activities and use of the World Wide Web.

## HLEDs7o Measurement in Health

## Education

3 HRS
This course is designed to provide students with the knowledge and skills necessary to identify, develop and conduct protocols to assess individual and group needs for health education as well as program impact and outcomes. Methods will include lecture, discussion and classroom activities designed to enhance application of course content.

## HLED575 Implementation and <br> Administration of Health <br> Education Programs

3 HRS
An overview of the process of health education program implementation and administration. Students will gain knowledge and skills necessary to effectively and efficiently conduct health education programs. Methods will include lecture, discussion and classroom activities designed to enhance application of course content.
Prereq: HLED550, HLED570, HLED555 and either HLED562 or HLED560

HLED590/591/592 Special Topics i/2/3 hrs Experimental course(s) designed to investigate specific topics of concern in the specialization areas of study in health education. Not more than six hours of special topics may be used on a degree program.

## HLEDs95 Workshop in Health

Education
2 HRS
A specialized workshop in the area of health education, with the central theme to be announced.

## HLED597/598/599 Independent Study I/2/3 HRS <br> An intensive study of a problem under the di-

rection of a University faculty member.
Prereq: department permission

## HLED643 Problems in Community

## Health

2 HRS
Community health problems and the forces operative in their solution and the role of the educators in dealing with the health problems of their environment.
Prereq: HLED640
HLED645 Problems in Sex Education 2 hrs A course designed to help school personnel improve and implement comprehensive sex education programs in the schools, K-12. The focus is on the improvement of skills and techniques in teaching and program development.

## HLED6so Administration of the School

 Health Program 2 hrs For principles, supervisors, coordinators, athletic directors and other personnel involved with the administration and leadership in school health programs. Current administrative theory in the implementation and improvement of school health programs.HLED679/680/68I Special Topics i/2/3 hrs Experimental course(s) designed to investigate specific topics of concern in the specialization areas of study in health education. Not more than six hours of special topics may be used on a degree program.

## HLED69o Project in Health

Education
3 HRS
A practical application of health education programming principles to a specific problem identified by the student and supervised by a faculty committee.
Prereq: HLED550, HLED555, HLED558,
HLED570, PHED505 and either HLED562 or HLED560. Department permission is required. Coreq: HLED575
HLED692 Thesis in Health Education 3 Hrs An intensive research project conducted by the student under the direction of a faculty committee.
Prereq: HLED550, HLED555, HLED558,
HLED570, PHED505, PHED677 and either HLED562 or HLED560. Department permission is required. Coreq: HLED575

## HLED695 Seminar in Health

## Education

3 HRS
An intensive study into the opportunities and challenges encountered while planning, implementing and evaulating health education programs. Students will participate in problem solving activities requiring the synthesis and integration of theory, principles, research, knowledge and skills gained through previous academic preparation.
Prereq: HLED550, HLED555, HLED558,
HLED570, PHED505, PHED677 and either
HLED562 or HLED560.
Coreq: HLED 575 and HLED690

## HLED697/698/699 Independent Study

 I/2/3 HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Hotel and Restaurant Management Courses

## HRMsoo Hospitality Program

Administration
2 HRS
Concepts used by hospitality faculty and administrators to become competent academic advisers for students. Includes discussion of articulation agreements, program accreditation requirements, cooperative education, the role of alumni, student organizations and advisory committees, plus development strategies and grantsmanship.

## HRMsig Human Resource Management in Hospitality and Nutrition <br> Service 2 hrs

 Emphasis on skills and techniques used to manage food-service personnel. Analysis of interpersonal relationships that affect employee motivation and morale, the emerging role of women in food-service management and current developments in unionized food-service operations.
## HRMs2i Quality Service

Management 2 hrs This course is designed to explore, challenge and define the principles of guest service management in any hospitality organization. Topics include characteristics and attributes of service, analysis of service gaps and development of service strategies to address these gaps and develop service recovery procedures.

## HRM56o Service Strategies for

Hospitality Industry
2 HRS A review of current service strategies used to provide total guest satisfaction in customer contact areas, facilities provided and marketing/ promotion of lodging properties and food-service operations.

## HRM587 Cooperative Education in

Hospitality Management 3 hrs
Provides practical experience in the student's concentration for four to six months of full-time employment with an individual employer. May not be used on 30 -hour program plan for the master's degree. Offered on a credit/no-credit basis.
Prereq: department permission
HRM590/591/592 Special Topics i/2/3 hrs An experimental course designed to investigate specific topics of concern in the specialization areas of study. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## HRM597/598/599 Independent Study $1 / 2 / 3$ HRS

An intensive study of a selected professional problem, under the direction of a faculty adviser.
Prereq: department permission
HRM6oo Research I
2 HRS
Application of the research process through development of a research project proposal for the culminating experience of the student's graduate program of study. Focus will be on writing chapters $1-3$ of the research project report.
Prereq: DTC500 and EDPS621
HRM607 Colloquium
2 HRS
A colloquium exploring research on contemporary topics of relevance to the hospitality industry professional.

## HRM6og Advanced Topics in Food-

Service Management
2 HRS Evaluation of recent trends in food service management, including food service systems, food and equipment innovations and personnel relationships.
Prereq: a course in food service/meal management or department permission

## HRM6io Advanced Topics in

Hospitality Management 2 hrs
Review of specialized topics of concern to hospitality management professionals today, in areas of human resource management, consumer trends, legal issues, marketing strategies, product and equipment advances, maintenance and energy management, security and housekeeping management.
Prereq: two courses in hospitalitylfood-service management or department permission

## HRM626 Productivity Management in Hospitality and Food-Service Facilities <br> 2 HRS

Review of productivity as related to human resource management, work methods, supplies and equipment, technology innovations, work environments and worker wellness, while maintaining cost and quality standards.

## HRM629 International Hospitality <br> Management

2 HRS
This course is focused on providing a better understanding and deeper appreciation of managment and marketing applications within a globalized context. The course presents a systematic approach to preparing students for leadership roles in tomorrow's worldwide hospitality industry.

## HRM639 Contemporary Issues in <br> Hospitality Strategy

2 HRS
The focus of this course is to develop an understanding of basic strategic management concepts as applied in the hospitality industry. Students will have the opportunity to apply concepts, tools and techniques that have been widely used by strategic planners effecting hotel, restaurant and tourism business in the $21^{\text {st }}$ century.

## HRM6so Research III

I HR
Presentation of culminating experience with emphasis on oral and written methods and skill development. Focus is on research project oral presentation and preparation of a poster presentation and a manuscript.
Prereq: HRM695

## HRM655 Financial Strategies for <br> Hospitality Operations 2 hrs

 A review of current cost control strategies used to manage food and beverage operations, human resources, facility maintenance/ engineering, marketing of lodging properties and food-service operations.HRM679/680/68i Special Topics i/2/3 hrs An experimental course designed to investigate specific topics of concern in the specialization areas of study. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## HRM683 Workshop

2 HRS
A workshop guided toward problems and practical concerns resulting from current trends of immediate concern to the hospitality professional.
Prereq: department permission

## HRM686/687/688/689 Practicum

 I/2/3/4 HRSSupervised work experience in field placement/ internship site determined by student and adviser.
Prereq: department permission

## HRM69o Thesis III

I HR
Presentation of thesis research with emphasis on oral and written methods and skill development. Focus is on thesis defense and preparation of a poster presentation and manuscript.
Prereq: HRM692

## HRM69i Thesis I

2 HRS
Application of the research process through development of a thesis project proposal for the culminating experience of the student's graduate program of study. Focus will be on writing chapters 1-3 of the thesis.
Prereq: DTC500 and EDPS621

## HRM692 Thesis II

3 HRS
Execution of a research project and preparation of thesis as the culminating experience for the student's graduate program of study. Focus will be on revising chapters 1-3 and writing chapters 4-5 of the thesis.
Prereq: HRM691 and department permission

## HRM695 Research II

3 HRS
Execution of a research project and preparation of a written report as the culminating experience for the student's graduate program of study. Focus will be on revising chapters 1-3 and writing chapters 4-5 of the research project report.
Prereq: HRM600

## HRM697/698/699 Independent Study I/2/3 HRS

An intensive study of a selected professional problem, under the direction of a faculty adviser.
Prereq: department permission

## Interior Design Courses

## IDEsoi Problems in Interior

 Design2 HRS
Analyzing and solving the problems of interiors, with regard to social, psychological and economic concerns of families.
Prereq: department permission

## IDEso2 Facility Programming and Post-

 occupancy Evaluation 2 hrs An examination of the techniques and concepts used in facility programming and post-occupancy evaluation; their interrelatedness and their application in facility management.
## IDEsoz Physical Environments for

 Aging2 HRS
The course will explore the interrelationship between the physical and psychosocial changes that occur with normal aging and the designed environment. Environmental assessments and recommendations to accommodate normal aging and the related physical impairments will be addressed.

## IDEso4 Computer-Aided Design for

 Interiors2 HRS
An examination of CAD applications in interior design research and practice. Emphasis on interactive programming, simulation, computer-aided planning (CAP) and computer-aided facility management.
Prereq: IDE312 or equivalent.

## IDEso8 Universal and Barrier-Free

 Design2 HRS The course will explore the creation, evolution and application of barrier-free construction codes and their relationship to the American National Standards Institute and other federal legislation. Design analysis of residential and nonresidential interior environments for individuals with specific disabilities will be emphasized.

## IDEsis Design and Management of Health Care Facilities 2 hr

 This course will explore issues and trends in health care facility design and management, an important specialization within the interior design field. Appropriate for students either majoring in interior design or those from other programs.Prereq: department permission

## IDEs87 Cooperative Education in

## Interior Design

3 HRS
Provides practical experience in the student's concentration for four to six months of fulltime employment with an individual employer. May not be used on 30-hour program plan for the master's degree. Offered on a credit/no-credit basis. Prereq: department permission

IDE590/591/592 Special Topics I/2/3 hrs An experimental course designed to investigate specific topics of concern in the specialization areas of study. Not more than six hours of special
topics may be used on a degree program.
Prereq: department permission

## IDE597/598/599 Independent Study I/2/3 HRS

An intensive study of a selected professional problem, under the direction of a faculty adviser.
Prereq: department permission

## IDE6oo Research I 2 hrs

 Application of the research process through development of a research project proposal for the culminating experience of the student's graduate program of study. Focus will be on writing Chapters 1-3 of the research project report.Prereq: DTC500 and EDPS621

## IDE6oi Interior Design Research

2 HRS
Advanced research methods course to investigate qualitative and quantitative methodologies used in interior design research.
Prereq: DTC500 or equivalent

## IDE6o3 History of Furniture and

Contemporary Trends 2 hrs
A study of furniture of various periods of history and the relationships to contemporary styles.

IDE604 American Interiors 2 hrs An investigation of the relationships between the various components of interior enhancement and indigenous arts and crafts, and the major developments in American domestic architecture, 1500 to 1900 .

## IDE607 Colloquium

2 HRS
A colloquium exploring research on contemporary topics of relevance to the interior design professional.

## IDE6so Research III

I HR
Presentation of culminating experience with emphasis on oral and written methods and skill development. Focus is on research project oral presentation and preparation of a poster presentation and a manuscript.

## Prereq: IDE695

IDE679/680/68i Special Topics $\quad$ /2/2 hrs An experimental course designed to investigate specific topics of concern in the specialization areas of study. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## IDE683 Workshop

2 HRS
A workshop guided toward problems and practical concerns resulting from current trends of immediate concern to the hospitality professional.
Prereq: department permission
IDE686/687/688/689 Practicum i/2/3/4 Hrs Supervised work experience in field placement/ internship site determined by student and adviser. Prereq: department permission

IDE690 Thesis III
I HR
Presentation of thesis research with emphasis on oral and written methods and skill development.

Focus is on thesis defense and preparation of a poster presentation and a manuscript.
Prereq: IDE692

## IDE69i Thesis I

2 HRS
Application of the research process through development of a thesis project proposal for the culminating experience of the student's graduate program of study. Focus will be on writing chapters 1-3 of the thesis.
Prereq: DTC500 and EDPS621

## IDE692 Thesis II

3 HRS
Execution of a research project and preparation of thesis as the culminating experience for the student's graduate program of study. Focus will be on revising chapters 1-3 and writing chapters $4-5$ of the thesis.
Prereq: IDE691 and department permission

## idE695 Research II

3 HRS
Execution of a research project and preparation of a written report as the culminating experience for the student's graduate program of study. Focus will be on revising Chapters $1-3$ and writing Chapters 4-5 of the research project report. Prereq: IDE600

## IDE697/698/699 Independent Study $1 / 2 / 3$ HRS

An intensive study of a selected professional problem, under the direction of a faculty adviser. Prereq: department permission

## College of Health and Human Services Courses

## IHHS592 Special Topics

3 HRS An experimental course designed to investigate specific topics of concern in the specialization areas of study. Not more than six hours of special topics may be used on a degree program.

## Interdisciplinary Technology Courses

## INDTsoo Introduction to

Interdisciplinary Technology 3 hrs An interdisciplinary overview of basic concepts and approaches to the study of technology and culture. Included are introductions to the philosophy of technology, history of technology, future studies and contemporary issues in technology.
Prereq: graduate standing
INDTsoi History of Technology 4 hrs An overview of major technical developments that have affected the course of human history. Emphasis is placed on the interrelationships of the technical to the sociocultural milieu.
Prereq: graduate standing

## INDTsoz Microcomputer Applications in Administration <br> 3 HRS

 This course is designed to teach students how to integrate the personal computer into the management of organizations. This includes research, data analysis, planning, project management and presentations. Students use the Internet as an integral part of the course to facilitate communication between themselves and the instructor. This course assumes a familiarity with Microsoft Word and Excel.
## INDTso3 Advanced Polymers and Coatings Technology Laboratory <br> 3 HRS

This course is designed to teach advanced and practical aspects of the science and technology of polymers and coatings. In this course a variety of advanced coatings, formulations and polymer synthesis will be carried out. Topics emulsion polymerization, automotive, powder, UV/EB will be covered.
Prereq: INDT400, INDT401
INDTso4 Patents and Patenting 3 hrs Elementary patent law, efficient methods of reviewing patents, careers in the patenting arena and learning technology from patent publications are discussed and illustrated. Technical writing skills for drafting patent applications and for partnering with patent attorneys in prosecuting patent applications are developed in homework and in-class workshop exercises.

## INDTso7 Risk, Safety, and the Air

 Transport Industry3 HRS This course will provide an analysis of the current state of, and possible future developments in, air transportation safety, with emphasis on the affects of risk analysis, risk management, system safety, human factors research and the development of new technologies, together with the role of management in the development of an effective safety posture.

## INDTso9 Issues and Trends in

 Aviation3 HRS
This course will present and analyze current and expected future world aviation issues and trends in areas including technology, regulations, poli$c y$, training, airspace, manufacturing and safety.

## INDTsio Principles of Managing

Technological Enterprises 3 hrs Characteristics of high-tech markets; motivating high-tech researchers and developers; manufacturing products with short life cycles, finance and planning in a high-tech environment; attracting and keeping the best human resources. Prereq: INDT500 or department permission

INDTsis Energy Educators Workshop I i hr This course provides students with the background necessary to understand current issues in domestic electric energy production. Students tour major power plants, nuclear facilities and renewable energy sources. Demonstrations on topics such as power line safety, ecology and geology of natural gas storage are provided by DTE Energy personnel. Lectures by EMU faculty provide historical and theoretical background.
Prereq: department permission

## INDTsi6 Energy Educators <br> Workshor II

2 HRS
This course is meant to assist the in-serviced science or technology teacher to take the materials he or she has learned from INDT515 Energy Educators Workshop I and integrate them into a unit of study for their science class.
Prereq: INDT515 and department permission

## INDTsig Issues and Trends in

 Aviation3 HRS
This course will present and analyze current and expected future world aviation issues and trends in areas including technology, regulations, policy, training, airspace, manufacturing and safety.

## INDTs20/WMSTs2o Women and

 Technology3 HRS
This course surveys gender issues surrounding technology development, transfer and use. We will examine the gender implications of technologies used in everyday life, particularly those that apply to work, health, reproduction, education and communication. Historical and crosscultural/global perspectives will be integrated into course themes.

## INDT 522 Physical Security

## Requirements for Information

## Systems

2 HRS
The physical safeguards and policies necessary to meet requirements for the protection of data in a fixed site. Contingency planning and business continuity resulting from terrorist acts, employee deviance, natural and technical disasters are explored. Students will conduct a site security analysis of a facility.
Prereq: BEDU542 and BEDU543

## INDT523 School Safety-Emergency

Planning/Incident Command 3 hrs Course provides analysis and strategies for educators in their response capabilities to school safety. Technical and Natural Disaster preparation, Incident Command System for Educators, techniques for bomb searching, preparation for weapons of mass destruction and school shootings will be covered. Site security analysis will be applied.

INDT525 Managing a Police Agency 2 hrs This course addresses universal management functions. They are taught in the context of, and applied to, internal police administration, traffic and criminal operations. The course also seeks to improve the knowledge about the nature and importance of the total administrative function along with the principles and techniques for achieving effective management of people and operations.

## INDT529 Foreign and Domestic Terrorism for First Responders <br> 3 HRS

 This is a technical course that provides for the preparation and response to a foreign or domestic act of terrorism. Students will explore the technology of weapons of mass destruction, how to prepare their communities, respond to the incident and mitigate the effects of a terrorist act.
## INDTszo Administration of Police

 Agencies2 HRS This course examines the role of the police, which begins with the evolution of the police concept. How the role is seen today and the communities' involvement in establishing that role are examined.

## INDT532 Audit Controls in

Information Security
2 HRS
A course for the information system security professional, emphasizing the audit and control of information systems. The course follows the curricula recommendations of the Information Systems Audit and Control Association (ISACA), Information Systems Audit and Control Foundation (ISACF) and uses Control Objectives for Information and Related Technology (COBIT).
Prereq: BEDU542 and BEDU543

## INDTs33 Cybercrime I

3 HRS
Intensive hands-on investigation of computer related crime designed for the profession as an electronic crime investigator. Course prepares students to become effective cyber crime investigators. Students will identify, evaluate, classify and demonstrate proficiency in investigating computer related crimes. Students subject to background investigation prior to admittance.
Prereq: department permission

## INDT535 Planning Skills for Police Agencies <br> 2 HRS

This course strives to develop the conceptual skills necessary for effective staff work and com-mand-level management. The need for planning in an organization along with the nature and need for change is presented, with the individual's role either as a change agent or a responder to change.

## INDT540 Police Personnel

Administration
2 HRS
This course is concerned with the issues of personnel management that are problematic. Job analysis, career development and labor discipline issues are covered in the context of personnel management.

## IndTs43 Advanced Polymer Synthesis

for Coatings Technology 2 hrs
Theories of step-growth and chain-growth polymerization will be related to synthesis of acrylics, vinyls, polyesters, alkyds and epoxies by bulk, solution and emulsion polymerization.
Prereq: INDT400 and INDT401, or equivalents
INDT544 Waterborne Coatings 2 hrs A course to present the technology involved in preparing and utilizing water-based coatings. The strengths and limitations of water-based materials versus other forms of coatings (sol-vent-based, powder and others) are presented. The requirements for polymers and other ingredients of water-based coatings formulations are taught. Students may not receive credit for both this course and INDT416.
Prereq: INDT400

## INDT545 Technical Skills for Effective Police Management 2 hrs

 An examination of the budgeting process including line-item budgets, zero-base budgeting, performance-based budgeting, etc. Also included is an examination of human resource allocation and its affect on budgeting. The use of computers is introduced at this level for ease in developing and maintaining budgets and human resources.
## INDT5so Issues and Skills for Senior <br> Command and Staff Officers 2 hrs

 This course deals with problems facing the senior commander. An analysis of positions within an organization and how best to accomplish organizational objectives. Methods for assuming command, use of time and how to select and manage subordinate commanders and staff.
## INDT55s Technology and

## Organization

3 HRS Development, analysis and theory of technological organizations, as well as practical problems confronting technological managers at a time of transition, as exemplified by leading U.S. and Japanese corporations.

Prereq: graduate standing in interdisciplinary technology or department permission

## INDT557 Cybercrime II

3 HRS
Applied course which focuses attention on the evaluation and synthesis of information in cyber crime investigations. Knowledge will be gained on Fraud Investigation, Malicious Logic, Encryption, Intrusion Detection, hacking and cracking and Internet Child Pornography. Students subject to background investigation prior to admittance.
Prereq: INDT553 and department permission
INDT558 Computer Forensics I 3 hrs This course addresses the comprehension and application of Computer Forensic Investigations. Students will evaluate and synthesize technical and legal issues in relation to digital evidence. Students will apply various skills and techniques, combined with numerous investigative software tools to analyze seized electronic media. Students subject to background investigation prior to admittance.
Prereq: INDT533/557 and department permission
INDT559 Computer Forensics II 3 hrs Comprehension of network forensic investigations and application of investigative framework methodologies. Students will apply Linux for forensic analysis and Access Data Forensic Tool Kit. Evaluation of Steganography tools and field acquisition of electronic media will be presented. Students subject to background investigation prior to admittance.
Prereq: INDT558 and department permission

## INDT56o Technology and Labor

 Relations3 HRS
This course examines the dynamics of technological change from a labor-management perspective, using historical and contemporary
examples of both confrontational and collaborative approaches.

INDT565 Technology and Training 3 hrs This course examines the role of training in our national policy and identifies training practices in today's "high-performance" workplaces.

## INDT570 Coating Evaluation and

Testing
2 HRS
This course investigates the separation of coatings and polymers followed by subsequent identification of individual components and/or contamination by appropriate instrumental means. Hands-on training in instrumental methods include FTIR, FTIR/Microscopy, GC/MS, Pyrolysis/GC/MS, GPC, HPLC and DSC with theoretical training in AA, ICP and x-ray diffraction.
Prereq: INDT400, INDT402

## INDT574 Crosslinking Technology for Coatings 2 hrs

 A course to present the physical and chemical principles of crosslinking of organic coatings. The physical properties of thermosetting coatings depend on the degree of crosslinking and the type of chemical linkages involved in crosslinking. The effects of these factors on today's commercial coatings are explained and examined.Prereq: INDT400, INDT402

## INDT587 Cooperative Education in

Interdisciplinary Technology 3 hrs
Co-op is an educational strategy that integrates classroom theory with a semester of paid work experience in an area related to the student's field of study. Work sites must be approved by the coordinator of Cooperative Education and the Department of Interdisciplinary Technology. Additional assignments may be required. Offered on a credit/no-credit basis.
Prereq: department permission

## INDT590/591/592/593 Special Topics

 I $/ 2 / 3 / 4$ HRSContent will change from semester to semester. An experimental course for subject matter not yet provided in other program offerings. Students may elect this course more than once, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.

## INDT597/598/599 Independent Study I/2/3 HRS

Opportunities are provided for the selection and completion of an individual project under the direction of a University faculty member. An approved written proposal is required.
Prereq: department permission

## INDT6oi Multidisciplinary Seminar in Technology <br> HRS

 A multidisciplinary seminar, which explores different philosophic and discipline-based perspectives of technology around a special topic. Usual format is a lecture series with outside speakers held at a conference center. May be repeated for credit if course content is different.
## INDT602 Contemporary Issues in

Technology 2 hrs An in-depth examination of a particular issue (or set of related issues), usually of topical interest, related to technology and society. This course generally will take place in business and industry settings. May be repeated for credit if course content is different.
Prereq: INDT500 or department permission.

## INDT6is Implementing and Planning

 Technological Change3 HRS
The course addresses principles and theories of technological innovation, partnership approaches to technology planning and implementation and best-practice scenarios at each stage of the technology adoption life cycle. Students will apply the principles learned to the analysis of case studies and workforce practices.

## INDT620 Aviation Performance

Technology
3 HRS
This course will present assessment and evaluation methods used to determine the safety status of aviation organizations. These methods are drawn from the field of performance technology.

## INDT6so Powder Coatings

2 HRS
This course will provide students with general knowledge in powder coating, a rapidly growing segment in the general coating and manufacturing industry. The students will become familiar with a wide variety of industrial and automotive powder coatings, their chemistry and physics, application and formulations.
Prereq: INDT400, INDT401

## INDT652 Durability and Performance

 of Coatings3 HRS
This course is designed to teach and evaluate the impact of a variety of parameters influencing both the durability and performance of coatings and polymers. In this course, the chemistry and physics of coatings, degradation of types and mechanisms and the role of coating components and other formulation variables will be discussed.
Prereq: INDT400, INDT402
INDT679/68i Special Topics I/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
INDT68o Technology Assessment 3 hrs A survey of the field of technology assessment that includes theoretical bases, unique modes of inquiry, major assumptions, institutional activities, major problems and future trends.
Prereq: INDT500 and INDT501
INDT690/69I/692 Thesis
I/2/3 HRS A research based study conducted under the supervision of a University graduate faculty member and an approved graduate committee
under the guidelines of the EMU Graduate Thesis Manual.
Prereq: department permission

## INDT697/698/699 Independent Study

 I/2/3 HRSOpportunities are provided for the selection and completion of an individual project under the direction of a University faculty member. An approved written proposal is required.
Prereq: department permission

## Computer Information Systems Courses

ISjo2 Business Information Systems 3 hrs Introduction to information systems. Topics include systems concepts, systems components, the role of information systems in information systems, computer hardware and software, networks, telecommunications, electronic business, cost/value and quality of information systems, ethical and global issues related to information systems and information systems security.

## ISjio Introduction to Object-Oriented Programming 3 hrs

 In this course, you gain a solid foundation in object-oriented and component-based development, positioning you to move seamlessly into the strategic application of these technologies - including tools, languages and methodologies - to meet your business needs.ISj20 Hardware and Software 3 hrs This course provides an in-depth, non-engineering introduction to the inner workings of modern computer systems to introduce students to fundamental computer hardware, systems software (operating systems and browsers), scripting languages and data concepts.

IS590/59I/592 Special Topics I/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## IS597/598/599 Independent Study

 1/2/3 HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## IS6os Managing Information

 Technology 3 HRS Information technology (IT) facilitates and enhances the other functional areas in modern organizations. This course covers IT management topics such as IT planning and strategies, IT for organizational decision-making, application systems and e-business systems and global issues in IT management.Prereq: pre-enrollment competencies for the MBA program, and MBA Foundational courses or equivalents: ACC501, ECON500, FIN502, LAW503, MKTG510, POM503, MGMT505

IS606 Web Application Development 3 hrs This course provides students with a working knowledge of the underlying technology for building Web sites and Web-based applications. The course provides students with hands-on skills required to develop Web sites and Webbased business applications. Students will learn a variety of Web authoring tools and programming languages.
Prereq: IS510
IS6io Advanced Programming 3 hrs The object-oriented programming techniques of encapsulation, inheritance and polymorphism will be applied to the solution of business problems. Code reuse, incremental development and other methods will be stressed. The students will use high-level tools to develop programs with Graphic User interfaces and will begin to study the problems of human/computer interaction.
Prereq: IS606
IS6i4 Systems Analysis and Design 3 hrs Information systems development life cycle; analysis and design techniques including requirements collection and structuring, object structure modeling, object behavior modeling and user interface design. Students are assigned one major project. Students will use current methods and tools for the project development.
Prereq: IS502, IS510

## IS6i6 Management Information Systems Resources 3 HRS The course is concerned with IT from the

 perspective of managers at all levels. It presents knowledge to managing an IT function within a larger organization. It considers strategic and operational issues, the significance of rapidly advancing technology and human and organizational issues related to technology introduction and use. Strategic and policy issues are discussed. Prereq: IS502, IS520
## IS62o Data Communications and

## Networks

3 HRS
This course discusses the technologies and applications of telecommunications and networking. Topics include telecommunication regulation and standards, network operating systems, infrastructure planning and operation of organizational telecommunication networks, security, as well as management and control of Internet servers and mobile systems.
Prereq: IS502, IS520

## IS622 Information Systems

Consulting
3 HRS
Information systems consulting concepts, principles and methodologies are covered in this course. It also includes topics such as business process analyses, business process reengineering, IS project management, enterprise resources planning, IS economics, e-business strategies, information systems quality and its measurements, IS regulations, etc.
Prereq: IS614

## IS624 Web Servers and System

 Software3 HRS
This course focuses on the activities needed to build, install and maintain a Web server in a chosen operating system environment. UNIX commands and shell programming are covered to prepare the student to produce dynamic Web pages using server-side programming. Web server security issues are also discussed.
Prereq: IS520, IS606

## IS625 Information Systems Project <br> Management <br> 3 HRS

Information systems (IS) project management methodologies and the use of automated tools for project management. Project champions, working with user teams, training and documentation. Systems development life cycle (SDLC) and approaches to business process engineering. Project integration, scope, time, cost, quality control and risk management. Information Systems development process and product quality metrics.
Prereq: IS614

## IS626 Business Database

## Applications

3 HRS Explores the elementary theories and applications of database design techniques and models including relational, hierarchical and network models. Provides in-depth experience with database management implementations on managerial decision-making.
Prereq: IS502 or equivalent

## IS632 Global Dimensions of

Information Technology 3 hrs Global issues of information technology development, strategies and policies are the focuses of this course. It also includes topics such as national and regional IT development strategies, trend of convergence or divergence of IT across countries, Internet technology and global IT management issues such as security, privacy, culture, risk management, outsourcing and legal constraints.
Prereq: IS502
IS645 Database Management Systems 3 hrs Study of the concepts, principles and techniques for managing data. Course covers techniques for the design and development of database systems including logical data modeling, physical data modeling, data retrieval and manipulation, concurrent processing, data distribution and database administration. The course provides students with hands-on skills on using the database package.
Prereq: IS614
IS65o Enterprise Resource Planning 3 hrs This course facilitates students to understand how to use an Enterprise Resource Planning (ERP) system in an organization. Students learn how to configure a large system to support an enterprise with multiple functions and divisions. Current trends and decision-making issues are addressed through a cross-functional view of ERP.
Prereq: IS502

IS65s Decision Support Systems 3 hrs This course describes and explains the processes and systems of decision making in organizations. The content covers issues that emphasize managerial and decision support technologies, such as group decision support systems, executive information systems, expert systems, data warehousing and data mining and web-based decision support systems.
Prereq: IS502, IS510

## IS66o E-Business Application

 Development3 HRS
This course describes the fundamental knowledge of e-business and e-commerce. This course discusses advanced issues and programming techniques for developing e-business applications. Topics include e-business models, strategies, security and integration methods. The course provides students with hands-on skills and programming tools required to build ebusiness applications.
Prereq: IS606

## IS66s Data Warehousing and Data

 Mining3 HRS
This course provides students with a working knowledge of the concepts, techniques and tools to build effective data warehousing and data mining systems. Students will learn how to leverage data warehousing and data mining to establish a competitive advantage and solve business problems faster by using online analytical processing systems.
Prereq: IS645
IS67o XML Technologies 3 hrs Extensible Markup Language (XML) is a technology that enables data communication between non-compatible systems. It provides advanced capability for developing business-tobusiness Internet solutions. The course covers XML features and abilities and explains XML's strategic importance for developing Web-based applications. The course offers substantial hands-on experience in using and understanding the workings of XML.
Prereq: IS606
IS679/680/68i Special Topics I/2/3 hrs This course will be offered periodically to review selected contemporary topics in quantitative analysis, business computer systems and/or managerial and business economics. Not more than six hours of special topics may be used on a degree program.
Prereq: completion of MBA or M.S.I.S. core

## IS690/691/692 Master's Thesis in

Information Systems $\quad 1 / 2 / 3$ hrs Students will prepare a proposal for original research in information systems and complete the proposed work under the guidance of the thesis supervisor and committee approved by the department. The completed work is to be submitted as a written thesis and defended before the thesis committee.
Prereq: IS606, IS625, IS645, IS620

IS695 Seminar
3 HRS
This capstone course integrates management information systems (M.S.I.S.) with fundamental areas of business. The impact of M.S.I.S. in the organization is analyzed in terms of current design and implementation techniques and follow-up evaluation of business systems. The student writes an original research paper in the area of management information systems.
Prereq: all M.S.I.S. required and restricted elective courses must be completed prior to this course

IS696 Systems Development Projects 3 hrs To provide the student with experience in analyzing, designing, implementing and evaluating industry-related information systems problems. Students are assigned one or more system development projects. The project involves part of all of the system development cycle and integrating the project with relevant information systems enterprise.
Prereq: IS606, IS620, IS625 and IS645
IS697/698/699 Independent Study i/2/3 Hrs An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Japanese Courses

## JPNE 544 Graduate Japanese

Conversation
3 HRS
A continuation of advanced conversation with emphasis on attaining advanced communicative skills pertinent to professional and cultural needs.
Prereq: JPNE444 or department permission

## JPNEs46 Japanese for Business

 Practices I3 HRS These courses teach the correct usage of Japanese economic and financial vocabulary and trains the students in reading, writing and translating Japanese business communications.
Prereq: JPNE444

## JPNEs47 Japanese for Business Practices II

3 HRS
This course teaches the correct usage of Japanese economic and financial vocabulary and trains the students in reading, writing and translating Japanese business communications. This course is a continuation of JPNE546.
Prereq: JPNE 444

## JPNEs94 Intensive Seminar in Japanese

 Studies3 HRS
Different topics are selected each semester for intensive study by advanced students. The course consists of review and discussion of contemporary issues in japanese language and culture, based on research projects and review of the pertinent literature carried out by the student. Emphasis in seminar meetings on exchange of ideas and information developed in the research.
Prereq: JPNE444 or department permission

## Law Courses

## LAWso3 Legal Principles, Forms of

Enterprise and Business Ethics 3 hrs This course covers topics in business law, ethics and the law of enterprises. Material includes the substantive law of contracts and torts, agency and enterprise formation, including limited liability companies, corporations and securities laws. Business ethics are taught from a legal perspective. Admission to the MBA program is required.

## LAW525 E-Commerce Law

3 HRS The Internet has created a new set of legal problems that pose immense challenges for business. This course covers a range of e-commerce legal issues including privacy issues, data protection, intellectual property, e-commerce contracts, cyber torts, e-commerce dispute resolution and online marketing.

## LAW540 Employment Law

3 HRS The course will focus on the law applicable to employment. Subject topics and laws covered will include: employment at-will, wrongful discharge, equal employment opportunity (Title VIII of the Civil Rights Act, 42 U.S. 1981, ADEA, Equal Pay Act, Elliott-Larsen, Family Medical Leave Act, American Disabilities Act, Michigan Handicapper's Act, Executive Order 11246) health \& safety (OSHA, workers' compensation), compensation (ERISA, FLSA), unemployment compensation, personnel records, lie-detector tests, whistle-blower's protection, labor law (National Labor Relations Act, as amended, etc.), the employment litigation process.

LAW5so International Business Law 3 hrs This course will focus on the international business law to enable business managers to analyze legal issues and manage risks relevant to the international business transactions. Topics covered will include prevalent legal systems, applicable business laws in specific geographic areas such as the European Union and a legal analysis of various types of international business transaction such as sales contracts, licensing, direct and indirect foreign investment, etc. Topics included are laws relative to: 1) trade including imports, customs, tariff regulation, World Trade Organization and NAFTA; 2) advertising, patent, business formation, currency risk, anti-trust employment; 3) international ethics; 4) international contracts.

LAW590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

LAW595 Seminar in Business Law 3 hrs A study of selected business law issues and topics that may vary from semester to semester.

LAW597/598/599 Independent Study $1 / 2 / 3$ HRS
Students select a problem or group of problems to be researched or studied in depth under the direction of a designated faculty member.
Prereq: department permission

## LAW6o3 Legal Environment of <br> Nonprofit Organizations

3 HRS
Study of the laws and regulations that govern board members and managers of nonprofit, nongovernmental entities; such as federal tax laws, state regulations, fiduciary responsibilities, legal liability, ethical issues and conflict resolution.

LAW679/680/68I Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: LAW503

## LAW697/698/699 Independent Study I/2/3 HRS

Students select a problem or group of problems to be researched or studied in depth under the direction of a designated faculty member.
Prereq: department permission

## Legal Administration Courses

## LEGLsoo Roles of the Legal Administrator

3 HRS
Examination of the organizational structure of the law office and courts. Emphasis on the role of a non-lawyer in achieving effective performance. Overview of systems and methods in legal settings and ethical guidelines.

## LEGLsor Technology in the Legal Enterprise

3 HRS
Examine technology's affect on the practice of law. Evaluate computer applications directed toward both legal administration and the delivery of legal services. Explore the technology linking the law office to the world.

## LEGLso2 Designing Solutions for Problems in Legal <br> Administration

3 HRS
Examination and solving of problems by the legal administrator. Topics include client files systems, cash and account management, payroll and tax reports, developing budgets, design of positions, motivation of support personnel and marketing of legal services.

LEGLsoz Judicial Administration 3 hrs Seminar course to study responsibilities and problems of the judicial administrator. Court security will be addressed, as will the court reorganization in Michigan and new advances in technology.

LEGLso4 Internship
4 HRS
Placement for intern will be arranged in a law office or court system to gain practical hands-on experience. Intern will complete all phases of a project and present a capstone research paper. Prereq: LEGL500, LEGL501, LEGL502 and LEGL503

LEGL590/591/592 Special Topics i/2/3 hrs Provides for intensive study of selected topics drawn from current developments in the total field of legal administration. Not more than six hours of special topics may be used on a degree program.
Prereq: graduate standing or department permission

## LEGL597/598/599 Independent Study I/2/3 HRS

An exploration and study of topics not covered in other program offerings. Student may elect more than once, provided different topics are studied.

LEGL679/680/68i Special Topics $1 / 2 / 3$ hrs An exploration and study of topics not covered in other program offerings. Student may elect more than once, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## LEGL697/698/699 Independent Study

 I/2/3 HRSAn intensive study of a problem or a group of problems under the direction of a University faculty member.
Prereq: Department permission

## Linguistics Courses

## Lingsoi Current Trends in

 Linguistics3 HRS A study of current trends in linguistic research as they bear on any number of practical and educational problems: reading, writing, language and public policy, language and professions, etc.

LINGgoz History of Linguistics 3 hrs Grammatical analysis from Plato to Chomsky; the influence of various linguistic theories and analytical methods on the development of contemporary language models and the teaching of grammar.

## LINGso6 Introduction to Old

English 3 hrs
An introduction to Old English language and the reading of representative selections of prose and poetry in the original Old English.

## Ling gio Historical and Comparative

Linguistics
3 HRS
Introduction to comparative historical linguistics with special reference to the development of English from Germanic and Indo-European backgrounds.

LING 525 Syntactic Analysis 3 hrs Development of tools for advanced syntactic analysis in English and other languages. Traditional and current approaches to the study of syntax including government and binding theory and phrase structure grammar.

## LING 531 Semantics: The Study of

 Meaning3 HRS
A brief study of the historical background of modern semantic analysis of English utterances. Traditional and generative approaches to semantic concepts will be examined.

## LING532 Sociolinguistics <br> 3 HRS

An analysis of the diversity in language caused by social factors, and the correlative influence of these linguistic differences upon society and social status.

LING533 General Psycholinguistics 3 hrs An introduction to psycholinguistics, the mental representation of a grammar, perception of language units, aphasia and other language abnormalities, first and second language acquisition, bilingualism, language and thought. Not open to students in speech-language pathology program.

LING534 Phonological Analysis 3 hrs Advanced theories in current phonology are presented and argued for, and contrasted with previous theories. Students do weekly analyses and submit an original final paper suitable for presentation at a conference.

## LING 535 Discourse Analysis 3 hrs

 Study of discourse structure and conversational interaction from several analytical perspectives, e.g., interactional sociolinguistics, pragmatics and ethnolinguistics. Identification of the structural cues and interpretive conventions that make discourse meaningful within a speech community. Topics may include: cross-cultural communication, gender and discourse, personal narrative, speech acts and presupposition.Prereq: one course in LING at the 500 level

## LING536 Typology and Universals of

 Language3 HRS
Seminar on description and explanation of structural patterns found recurrently across languages. Explores characteristics of the world's language families and areas. Special attention to processes of linguistic change.

LING590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course more than once, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.

## LING597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem or research area not covered in regular courses; under the direction of a University faculty member.
Prereq: department permission

LING679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course more than once, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.

## LING692 Thesis

3 HRS
Original research or critical study designed and completed by the student under the guidance of the thesis director and committee.
Prereq: department permission

## LING697/698/699 Independent Study 1/2/3 HRS

An intensive study of a problem or research area not covered in regular courses; under the direction of a University faculty member.
Prereq: department permission

## Literature Courses

Open only to students admitted to graduate programs in English language and literature. Others by department permission.

## LitRsio Critical Practices in Literary Studies <br> 3 HRS

This course is designed to introduce graduate students in English Literature to the range of resources available for doing advanced research in literary studies. Emphasis is placed on developing critical reading skills that enable students to construct arguments within the on-going discussions currently shaping literary studies.
Prereq: 15 hours in literature. Graduate student in English

LitRsii Literary Criticism 3 HRS
A study of various approaches to literary criticism, with application to specific works.
Prereq: 15 hours in literature. Graduate student in English

LitR fir $_{2}$ Middle English Literature 3 hrs A study of the genres of Middle English literature (chronicle, dialogue, exemplum, fable, romance, sermon, etc.).
Prereq: 15 hours in literature. Graduate student in English

## LITRsı6 Major Genres in Children’s Literature

3 HRS
An intensive study of the major genres of children's literature, with emphasis on important representative examples and related criticism.
Prereq: 15 hours in literature

## LITRsif Teaching of Children's Literature

3 HRS
A course concentrating on the value of literature for children, with discussion and demonstration of various techniques used in teaching it. Additional readings in selected genres will be required. Offered for anyone planning to work with children, preschool through grade nine.
Prereq: 15 hours in literature

## LITR 18 History of Children's

## Literature

3 HRS
An examination of books for children written before the 20th century. Emphasis will be placed on major authors and movements from 1744 to 1908 and on what these reveal about changing attitudes toward children and the corresponding changes in the literature written for them.
Prereq: 15 hours in literature

## LiTRsig History of Children's

Literature: 20th Century 3 hrs Major writers and movements from World War I to the present, with emphasis upon what these reveal about changing attitudes toward children and young people and the literature written for them.
Prereq: 15 hours in literature
Litris2o Old English Poetry 3 hrs A study of Old English prosodic conventions, with a close reading of representative poems from various types and schools of Old English poetry. Readings are in Old English.
Prereq: 15 hours in literature and LING506, or instructor permission. Graduate student in English

## LITR ${ }^{2} 33$ Realism and Naturalism in

American Literature
3 HRS
Realism and naturalism as theory and as practice in the late 19th and early 20 th centuries in novels, drama or poetry.
Prereq: 15 hours in literature. Graduate student in English

## LITR 526 Studies in African American

## Literature to 1945

3 HRS Specialized study of African American literature to 1945 . Parallels will be drawn between the trends in the African American literature studied and American literature as a whole.
Prereq: 15 hours in literature. Graduate student in English

## LITR 527 Studies in African American <br> Literature Since 1945 <br> 3 HRS

Specialized study of African American literature since 1945.
Prereq: 15 hours in literature. Graduate student in English
Litr 530 Studies in Chaucer 3 hrs Intensive reading of Chaucer's major works and supplementary reading in Chaucerean criticism. Prereq: 15 hours in literature. Graduate student in English

## LITR 5 $_{3}$ Elizabethan and Jacobean

## Drama

3 HRS
Representative plays of Marlowe, Jonson, Webster and other playwrights contemporary with Shakespeare.
Prereq: 15 hours of credit in literature. Graduate student in English

Litr $_{54}$ I Studies in Shakespeare 3 hrs Intensive reading of representative plays of Shakespeare, and of relevant critical, historical and textual scholarship.
Prereq: 15 hours in literature, including one course in Shakespeare. Graduate student in English

## LITR545 Studies in Renaissance

 Literature3 HRS A specialized study of major nondramatic poetry and prose of the English Renaissance (exclusive of the works of John Milton). Specific major authors to be studied may include Shakespeare, More, Sidney, Spenser, Marlowe, Bacon, Jonson, Donne and Herbert.
Prereq: 15 hours in literature. Graduate student in English

## LITRj6i Studies in i8th Century

## Literature

3 HRS
A specialized study of poetry and prose of a selected number of major authors of the Restoration and 18th century. Specific authors to be studied may include Dryden, Swift, Pope, Thompson, Collins, Gray, Johnson, Goldsmith and Boswell.
Prereq: 15 hours in literature. Graduate student in English

## LITR563 Studies in i8th Century

 Fiction3 HRS
A specialized study of major authors, genres and themes of 18th century fiction. The fiction studied will include works by such authors as Defoe, Swift, Fielding, Richardson, Sterne, Goldsmith, Walpole and Smollett.
Prereq: 15 hours in literature. Graduate student in English

## LITRs6s Studies in i9th Century British Fiction <br> 3 HRS

Specialized study of selected English novelists of the 19th century. Novelists studied may include Austen, Scott, Disraeli, the Brontes, Gaskell, Thackeray, Dickens, Eliot, Trollope, Meredith, Hardy and others.
Prereq: 15 hours in literature. Graduate student in English

## LITR 666 Studies in 2oth Century

British Fiction
3 HRS
Specialized study of the work of representative major 20th century British novelists such as Conrad, Lawrence, Woolf, Forster, Huxley, Durrell, Greene, Fowles and Lessing.
Prereq: 15 hours in literature. Graduate student in English

## LITR567 Studies in 20th Century Irish Literature 3 HRS

Specialized study in prose, poetry and drama of 20th century Irish literature, with attention to such major figures as Yeats, Shaw, Joyce, Synge, O'Casey, O'Faolin, Beckett and Kavanagh. Prereq: 15 hours in literature. Graduate student in English

## LITRs68 Studies in i9th Century

American Poetry
3 HRS
Specialized study of the work of two or three major 19th century American poets, such as Whitman, Dickinson, Poe, Longfellow, Melville, Emerson, Bryant, Lowell and Lanier.
Prereq: 15 hours in literature. Graduate student in English

## LITR569 The American Renaissance:

 1830-1860 3 HRS Specialized study of the work of three or four of the following writers: Cooper, Poe, Emerson, Thoreau, Hawthorne, Melville.Prereq: 15 hours in literature. Graduate student in English

## LITRs7o Studies in Romantic

 Literature3 HRS
An intensive study of the poetry and nonfictional prose of at least two of the poets and essayists from the Romantic period (e.g., Blake, Wordsworth, Coleridge, Keats, Byron, Shelley, Hazlitt, DeQuincey, Lamb).
Prereq: 15 hours in literature. Graduate student in English

## LITR575 Studies in Victorian

 Literature3 HRS
An intensive study of the poetry and nonfictional prose of at least two of the major writers from the Victorian period (e.g., Carlyle, Tennyson, the Brownings, Arnold, the Rossettis, Swinburne, Newman, Mill, Ruskin, Pater).
Prereq: 15 hours in literature. Graduate student in English

## LITRs76 Studies in 20th Century

American Fiction
3 HRS
Specialized study of two or three 20th century American novelists, such as Hemingway, Fitzgerald, Faulkner, Nabokov and Bellow.
Prereq: 15 hours in literature. Graduate student in English

## LITR 577 Studies in 20th Century

American Poetry
3 HRS
Specialized study of the work of two or three major 20th century poets, such as Pound, Eliot, Stevens, Williams, Roethke, Robinson, Frost, e.e. cummings, Hart Crane and Robert Lowell. Prereq: 15 hours in literature. Graduate student in English

## LITR58o Studies in Contemporary <br> Literary Trends <br> 3 HRS

Specialized study of the nature of contemporary literary developments, with some attention to other cultural parallels, past and present. The particular focus of the course (poetry, fiction, drama or criticism) in a given semester will be announced in the class schedule bulletin.
Prereq: 15 hours in literature. Graduate student in English

## LITR58i Critical Approaches to

Mythology
3 HRS
An investigation of myths from many cultures, demonstrating individual responses to universal questions of human existence. Students will respond critically to the various theories of myth through their reading and analysis of myths as literature.

## Prereq: 15 hours in literature

## LITR582 Wisdom of the People: Ballads,

 Legends and Tales3 HRS
Reading and analysis of printed tales, legends and ballads using the tools of folklore schol-
arship. Students also collect and analyze oral materials.
Prereq: 15 hours in literature

## LITR583 Literature for Early

Childhood
3 HRS
Prose and poetry for preschool and early elementary children, with emphasis on recent research in illustration and literature and its application in selecting, evaluating and using books with the young.
Prereq: 15 hours in literature
LITR 84 Literature for Adolescents 3 hrs An examination of literature for adolescents, emphasizing criteria for selection and evaluation, along with consideration of audience, genre and censorship. Students will be expected to read and respond critically to historical and contemporary literature written for adolescents. Prereq: 15 hours in literature

LITR590/591/592 Special Topics i/2/3 hrs Topics will be announced from time to time. The following are examples of topics offered in recent years: Caribbean literature, short story, literature of the Civil Rights Movement, Postmodern theory. Not more than six hours of special topics courses may be applied toward the degree.
Prereq: 15 hours in literature; further preerequisites may be required for some topics. Graduate student in English

## LITR597/598/599 Independent Study I/2/3 HRS

Advanced study on an individual basis in areas not covered, or not covered in depth, in formal course work. May be repeated for credit.
Prereq: department permission
LITR679/680/68i Special Topics i/2/3 hrs An exploration and study of topics not covered in other program offerings. Student may elect more than once, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## LITR697/698/699 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems under the direction of a University faculty member. Not to be elected until a student has been accepted as a candidate for the master's degree in literature.
Prereq: 15 hours in literature and permission of the graduate committee; graduate student in English or department permission

## Mathematics Courses

## MATH soo Modern Mathematics

 Content, K-62 HRS
The modern mathematics required for teaching this subject in the elementary grades (K-6); set theory, logic, numeration systems, the real number system and geometry. Not applicable to M.A. in mathematics program.

## MATHyoi New Topics in Modern

Mathematics, $\mathrm{K}-8$
$\mathbf{2}$ HRS
topics in modern mathematics programs,
New topics in modern mathematics programs, the materials of various study groups and practical problems in teaching mathematics in grades K-8. Not applicable to M.A. in mathematics program.

## MATH5O4 Mathematics and Statistics for MBAs <br> 3 HRS

 An elementary course emphasizing an understanding of differential calculus and its use in optimization, and an understanding of basic probability and statistics. Open to MBA students only. Not applicable to M.A. in mathematics program.
## MATHso6 Introduction to

## Mathematical Logic

2 HRS
Propositional and first-order predicate calculi and rules of deduction; application in mathematical systems and proofs. Experience in writing proofs is assumed.

MATH507 Theory of Numbers 3 hrs Divisibility theory of integers, primes, theory of congruencies, Fermat's Theorem, Wilson's Theorem, number theoretic functions, multiplicity, Mobius inversion formula, Euler's phi function, quadratic reciprocity. Completion of a course in abstract algebra is assumed.

## MATHyo8 Foundations of

## Mathematics <br> 2 HRS

An introduction of axiomatic method, axiomatic set theory, transfinite arithmetic and logical paradoxes; and their influence on modern conceptions of mathematics. Experience in writing proofs is assumed.

## MATHyif Linear Algebra

3 HRS
Theory of a single linear transformation, canonical forms, inner product spaces. Completion of introductory courses in abstract algebra and linear algebra is assumed.

## MATHsis Discrete Mathematics with Applications <br> 3 HRS

Elementary combinatorics, recurrence relations and generating functions, graphs, trees, network flows, Boolean algebras and applications. Experience with proofs is assumed. Knowledge of linear algebra or an undergraduate discrete mathematics course is recommended.

MATH 518 Theory of Groups 3 hrs Groups, subgroups and quotient groups, finitely generated abelian groups, Sylow theorems, further topics. Completion of a course in abstract algebra is assumed.

## MATH522 Fourier Analysis

3 HRS
An introduction to Fourier series and their application to the solution of boundary value problems in the partial differential equations of physics and engineering. Completion of courses in real analysis and differential equations is assumed.

MATH524 Complex Analysis 3 hrs Complex numbers, analytic functions, elementary complex functions and mappings,

Cauchy's Theorem and Cauchy's integral formula, maximum modulus principle, power series and calculus of residues and further topics. Completion of a course in real analysis is assumed.

## MATH526 Real Analysis 3 hrs

 Topology of the real line, sequences and series, metric spaces, real-valued functions, functions of bounded variation, theory of differentiation and integration, introduction to Lebesque integration. Completion of an introductory course in real analysis is assumed.
## MATH535 Chaotic Dynamical

## Systems

3 HRS
Theoretical and numerical aspects of systems of differential equations specific to finding qualitative information about sensitivity to initial conditions and long-term behavior of solutions related to chaos. Completion of a course in real analysis or linear algebra is assumed.

MATH536 Numerical Linear Algebra 3 hrs Introduction to numerical analysis; numerical methods for: solution of nonlinear equations, solution of systems of linear equations, orthogonalization, computation of eigenvalues and eigenvectors. Knowledge of computer programming is required. Completion of courses in linear algebra, multivariable calculus and computer programming.

## MATH537 Numerical Differential

## Equations

3 HRS
Introduction to numerical analysis; numerical methods for: interpolation and approximation, integration, solution of ordinary differential equations, solution of partial differential equations. Knowledge of computer programming is required. Completion of courses in linear algebra, multivariable calculus and computer programming.

MATH 545 Fractal Geometry 3 hrs Metric space topology and its application to fractal geometry. Fractal geometry studies how to reproduce graphics through function iteration and how to reduce noise in given graphical information. Completion of a course in real analysis is assumed.

## MATH546 Graph Theory 2 hrs

 A study of undirected and directed graphs and their structural properties including connectivity and traversibility; associated matrices, groups and relations and applications to networks. Experience in writing proofs is assumed.
## MATH548 Introduction to Differential

 Geometry3 HRS Fundamental concepts of the theory of curves and surfaces in three-dimensional space; applications. Not open to students with credit in MATH448 Differential Geometry With An Introduction to General Relativity. Completion of courses in linear algebra and multivariable calculus is assumed.

MATH5so General Topology 3 hrs General theory of topological spaces, metric spaces, continuity, product and quotient spaces, separation axioms, compactness and connectedness. Completion of a course in real analysis is assumed.

## MATH560 Introduction to

## Optimization Theory

3 HRS
An introduction to various aspects of optimization theory, including linear and nonlinear programming, primal dual methods, calculus of variations, optimal control theory, sensitivity analysis and numerical methods. Completion of courses in linear algebra and multivariable calculus is assumed.

## MATH566 Modeling in

Bioinformatics
3 HRS
Coverage of modeling process in restriction mapping, map assembly, DNA arrays and genome rearrangements. Also covers hidden Markov models and data mining models. Completion of a course in calculus and a course in statistics as well as some knowledge of computer programming is assumed.

## MATH57o Statistical Concepts and

Methods for Bioinformatics 3 hrs Statistical techniques for analyzing biological data: probability and statistical estimation theory; sampling theory; stochastic models for biological processes; multiple linear regression; logistic regression; applied multivariate analysis including discriminant functions, factor analysis, principal components, cluster analysis. Applications and computer-based data analysis are stressed. Knowledge of calculus and statistics is assumed.

## MATH57i Mathematical Statistics I:

## Probability Theory

3 HRS Set theory, Borel sets, Sigma field of events, probability measures on a sigma field, axioms, finite and countable spaces, random variables and distributions, functions of random vectors, derived distributions, generating and characteristic functions, limit theorems, modes of convergence, law of large numbers. Completion of courses in real analysis and calculus-based probability and statistics is assumed.

## MATH572 Design and Analysis of

## Experiments

3 HRS Principles of experimental design and analysis: randomized blocks and Latin Squares, nested or hierarchical designs, experimental and sampling errors, fixed and random effects models, components of variance, expected mean squares, factorial and fractional designs. Not open to students who have credit in MATH462. Completion of courses in linear algebra and calculus-based probability and statistics is assumed.

MATH 573 Statistical Data Analysis 2 hrs Data analysis using statistical packages such as SAS and MINITAB. Analysis of variance; multivariate regression; stepwise regression; analysis of categorical data, including nonparametric tests, goodness-of-fit tests and tests for
normality. Emphasis is on application and understanding of the basic assumptions in testing data. Completion of a calculus-based probability and statistics course is assumed.

MATH574 Applied Statistics
3 HRS An empirical approach to statistics: generate samples and model distributions; tests of fit to specified distributions; tests of assumptions of randomness (trend); independence (association); biostatistics; product and system reliability. Not open to students with credit in MATH474. Completion of a calculus-based probability and statistics course is assumed.

## MATH 575 Linear Regression

## Analysis

3 HRS Modeling a response as a sample or multiple regression model, validity of assumptions, using models for estimation and prediction, multicolinearity, auto-correlation of error terms, residual analysis, influence diagnostics, stepwise regression. Not open to students who have credit in MATH461. Completion of courses in linear algebra and calculus-based probability and statistics is assumed.

MATH576 Applied Survey Sampling 3 hrs Theory and applications of sampling: selection of samples; sampling designs; estimation of means and variances; ratio; regression and difference methods; simple, systematic, cluster and stratified random sampling; probability-proportional-tosize sampling. Not open to students who have credit in MATH460. Completion of a calculus-based probability and statistics course is assumed.

## MATH577 Applied Multivariate

 Statistics3 HRS
Techniques for analyzing multidimensional data, including multivariate analysis of variance, principle component, discriminant analysis and canonical correlation. Completion of courses in linear algebra and calculus-based probability and statistics is assumed.

MATH578 Nonparametric Statistics 3 hrs Selected distribution-free tests; Wilcoxon signed rank; Mann-Whitney tests; Kolmogo-rov-Smirnov, Chi-square and rank correlation tests; Kruskal-Wallis; Friedman correlation and regression. Completion of a calculus-based probability and statistics course is assumed.

## MATH580 Mathematical

## Connections

2 HRS The National Council of Teachers of Mathematics recommends an increased use of realworld applications in the secondary school mathematics curriculum. This course provides secondary mathematics teachers with real-world connections to topics found in grades 7-12 such as arithmetic, algebra, geometry, trigonometry, probability and statistics and calculus.
Prereq: MATH306

## MATH58i Modern Mathematics

Methods, K-6
2 HRS
Elective techniques in presenting materials, planning class activities and creating good learning
situations; current problems in a modern mathematics curriculum for grades K-6. Not applicable to M.A. in mathematics program.

## MATH582 Microcomputers for

 Educators2 HRS
Capabilities and applications of microcomputers in schools. Students will learn programming in the BASIC language and how microcomputers work. No microcomputer experience assumed. Intended for educators.

MATH583 Problem Solving 2 hrs Problem-solving skills and strategies will be presented. The course will emphasize what it means to think mathematically and to investigate literature relevant to understanding mathematical thinking and problem solving.

## MATH584 Middle School Mathematics, Methods and Content 3 hrs

 Middle school mathematical content and contemporary ways of using materials and strategies to present the content. Topics include algebra, geometry, probability and statistics, number theory, logic and other general mathematics notions.
## MATH587 Enriching Instruction in

High School Mathematics 2 hrs New teaching aids and supplementary reading materials; subject matter usually not developed in standard texts (e.g., linear programming, principles of computers and advanced geometric constructions); topics for accelerated high school classes.

## MATH 588 High School Mathematics, Methods and Content 3 hrs

 Presents information and materials to broaden and deepen a secondary teacher's background in teaching mathematics. Topics include general mathematics, algebra, geometry, trigonometry and senior mathematics. Applications, strategies of presentation and teaching aids are discussed.
## MATH589 Geometry for Secondary

 Teachers2 HRS Presents information and materials to broaden and deepen a secondary teacher's background in teaching geometry. Foundations of geometry, modern geometry, non-Euclidean geometries and a little topology are studied.

MATH590/591/592 Special Topics $1 / 2 / 3$ hrs A graduate-level course in a specific area of mathematics, to be determined by the field of specialization of the instructor and the interest of the students. Not more than six hours of special topics may be used on a degree program.
MATH595 Workshop in Mathematics 2 hrs Students will be provided practical and theoretical study in a selected topic area. Usually not applicable to M.A. in mathematics program.
Prereq: department permission

## MATH597/598/599 Independent Study I/2/3 HRS

A report on an approved subject in the field of mathematics, the history of mathematics or
the teaching of mathematics, under the guidance of a faculty member of the Mathematics Department.
Prereq: department permission

## MATH6or Teaching Junior College Mathematics

2 HRS
Current problems in a junior college mathematics program. The role of algebra and trigonometry, elementary functions, analytic geometry, the calculus and linear algebra; content and techniques of instruction; CUPM recommendations for a college program.
Prereq: department permission

## MATH6i8 Theory of Fields 3 hrs

Finite fields, prime fields and their extensions, normal extensions and Galois groups, splitting fields, separability, irreducibility, ruler and compass constructions, unsolvability of the general quintic equation.
Prereq: MATH518

## MATH67i Mathematical Statistics II:

Statistical Inference 3 hrs Distributions, exact sampling distributions, properties of estimators, MLE, BLUE, Bayes and Min-Max estimation, Rao-Blackwell Theorem, completeness, minimal sufficiency, optimal tests, Neyman-Pearson Lemma, likelihood ratio tests, chi-square tests. Completion of a course in linear algebra is assumed.
Prereq: MATH571
MATH679/680/68i Special Topics I/2/3 hrs A graduate-level course in a specific area of mathematics, to be determined by the field of specialization of the instructor and the interest of the students. Completion of a minimum of 10 graduate hours in mathematics, and a graduate GPA in mathematics of 3.3 or above strongly recommended. Not more than six hours of special topics may be used on a degree program.

## MATH687 Cooperative Education in <br> Mathematics <br> 3 HRS

Practical experience in an industrial setting, consisting of a supervised placement involving extensive use of mathematics. The student will be required to submit a plan outlining the academic benefits; and a summary of the experience upon conclusion. Offered on a credit/nocredit basis.
Prereq: department permission

## MATH69o/691/692 Research Study I $/ 2 / 3$ HRS

Research in areas of mathematics or mathematics education under guided direction. Thesis or final paper dependent upon program option is required at the conclusion of the research work.
Prereq: department permission

## MATH697/698/699 Independent Study I/2/3 HRS

A report on an approved subject in the field of mathematics, the history of mathematics or the teaching of mathematics, under the guidance of a faculty member of the Mathematics Department. Prereq: completion of a minimum of 10 graduate
hours in mathematics, and a graduate GPA in mathematics of 3.3 or above, and department permission.

## Manufacturing Courses

## MFG591 Special Topics

2 HRS
An exploration and study of topics not covered in other program offerings. Student may elect more than once, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## Management Courses

## MGMTjoi Management: Concepts, Principles and Practice 3 hrs

 The basic managerial functions are studied primarily from the perspective of the process design, but the behavioral, management science and other disciplinary schools of thought are also carefully examined. Open only to graduate students who have not had a basic management course. Not available to College of Business graduates.
## MGMTsos Organizational Behavior

 and Business Communication 3 hrs This course provides a survey of relevant social science research and literature to provide the student with basic knowledge of Organizational Behavior and Communication theory and concepts, as well as the application of these. Cases and exercises are used to relate theory to applications, and practice assignments are given. Admission to the MBA or MSHROD program or Ph.D. in clinical psychology required.
## MGMTso9 Human Resource

Management
3 HRS
Current activities and theory relevant to human resource management function are described, including impact of changes related to government intervention and other environmental impacts.

## MGMT5iz Business Communications Seminar <br> I HR

Business Communication Seminar focuses on strategies for professionals who must inform and influence others in the workplace through oral and written business communication. The course will prepare students to write progress reports, executive summaries and brief business reports as well as to deliver technical briefings and project presentations.

MGMTs30 E-Commerce Essentials 3 hrs This course provides an overview of e-business. It explores managerial issues related to economics, marketing and logistics of business transactions in the networked economy. Topics include information technology, value creation and delivery, supply-chain management, electronic financial markets, digital storefronts, digital payments and the ethical/legal issues involving electronic commerce that are highlighted in case studies.

MGMTsso International Management:
A Cultural Perspective 3 hrs This course will examine management practices within the international business environment, both from individual national perspectives and from the global perspective of the multinational corporation.

## MGMT567 Business Communication:

 Specialized Organizational Report Writing 3 HRSCourse to train students (already admitted to a graduate degree program) to write reports suited to organizational needs and environments. Provides professional and managerial focus on designing reports for business, industry, education, health care and government. Develops skills in design, editing and analysis of reports.

MGMT57o New Venture Creation 3 hrs This course develops students' abilities to formulate a business plan for new ventures. Using a specific idea, students examine opportunity, market options, entry modes, financial projections and overall strategy for a new venture. The emphasis is on developing the ability of students to start a new profit or non-profit venture.

MGMT576 Corporate Social Policy 3 hrs A study of interaction between business organizations and their economic, political, social and legal environments. Ethical issues relevant to corporate decision-making will be the focus of the analysis of social policy.

MGMT590/591/592 Special Topics i/2/3 Hrs Selected topic(s) from the field of management. Not more than six hours of special topics may be used on a degree program.

## MGMT597/598/599 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission
MGMT6oo Management Skills 3 hrs Provides a practical approach to self-management and the management of others using such tools as self-assessment, career planning, interviewing, teamwork and project management. Also develops competencies in leadership, written and oral business communication and problem solving. May include role plays, exercises, oral and written presentations and personal and team projects.
Prereq: ACC501, ECON500, FIN502, LAW503, MKTG510, POM503 and MGMT505 Concurrent prereqs: LAW503 and POM503

## MGMT6oz Theory and Techniques of

Organizational Development 3 hrs
This class examines the theoretical basis of the field of organizational development. Change interventions at the individual, group and organizational level are covered along with consultation skills.

MGMT603 Corporate Entrepreneurship: Innovation and Technology
Commercialization
3 HRS
Students will develop an awareness of the range, scope and complexity of issues involved in creating and growing entrepreneurial activities inside established firms. They will gain insight into the effective commercial exploitation of technological and organizational innovation in such a context.

## MGMT604 Strategic Communication

and Ethical Decision Making 3 hrs This course focuses on the management strategies and skills called for in the corporate communication function including a thorough analysis of the ethical aspects that arise and their implications for message content and strategy. Admission to the MBA program is required.
Prereq: ACC501, ECON500, FIN502,
LAW503, MKTG510, POM503 and
MGMT505 Concurrent prereq: POM503

## MGMT6io Diagnostic and Quantitative

Methods in Organizations 3 hrs The study and application of diagnostic and quantitative methods for problem diagnosis, implementation and evaluation of the organizational development process and human resource management practices.

MGMT6ii HR and Technology 3 hrs Focusing on the interface of Human Resource Management functions with technology, this course highlights the latest theories, practices and emerging issues in e-HR. Students apply electronic human resource techniques for using Web-based, online and traditional HR sources.

## MGMT6iz Leadership in Business Organizations: Theory and

 Practice3 HRS
Leadership in Business Organizations: Theory and Practice will provide students with knowledge of the theories of leadership in business organizations as well as practice in leadership and management. The course will use several diagnostic techniques to help students understand their own leadership strengths as well as areas to be developed.

## MGMT6i4 Growth Strategies for

Entrepreneurial Ventures 3 hrs This course focuses on the opportunities and challenges of managing growing ventures. The course provides students with frameworks and expertise that are essential for developing and executing functional decisions in entrepreneurial firms. Students will propose specific functional decisions and project financial performance of the venture based on those decisions.

## MGMT6is Organization Design and

## Strategy

3 HRS
To provide in-depth understanding of organizations' ability to survive, grow and adapt in relation to internal and environmental pressures. Analytical and problem skills are practiced also in such areas as structure, conflict, strategy and use of power.

MGMT618 Staffing Organizations 3 hrs This course will train students to staff organizations. Students will obtain skills in human resource planning, recruitment, job analysis, selection techniques and evaluation (validation).

MGMT620 Compensation Management 3 hrs Study of the concepts and practices of compensation administration with emphasis on current theories of compensation and motivation.

## MGMT625 Management in Unionized

 Settings3 HRS
Presents the background necessary to examine top management strategic decision-making regarding unions as well as day-to-day union worker-management interaction and introduces methods and skills necessary for change in man-agement-union relationships.

## MGMT628 Human Resource

 Development3 HRS Course is designed to educate students in training-needs analysis and program design, implementation of training programs, training evaluation procedures, human resource cost-effectiveness plans and job design techniques.

MGMT636 Current Topics in Entrepreneurship

3 HRS
This course focuses on issues and topics of interest to entrepreneurs. Topics will vary from semester to semester but may include: family business, corporate entrepreneurship and franchising.

## MGMT638 Building Continuous

Improvement Teams
3 HRS
Develops an understanding of the continuous improvement philosophy and the organizational systems required to support a teamoriented approach to designing, developing and implementing continuous improvement teams. The course provides knowledge and critical skills necessary for building continuous improvement teams.

## MGMT648 Communication and

Organizational Development 3 hrs The development of communication understanding and skills as required in organizational management and interaction by internal and external change agents.

MGMT6so Leadership of the Strategic
Quality Management Firm i/2/3 hrs This course introduces the students to the strategic concepts for leading a strategic quality management firm. Cross-functional considerations between development, marketing, operations, human resources, financial controls and international functions are covered.
Prereq: completion of MBA foundation courses
MGMT656 E-Business Strategy 3 hrs Develops understanding of how the Internet and associated technologies create opportunities for new and existing businesses. Students will analyze how e-business initiatives are shaping competitive dynamics in different industries
and how electronic technology affects strategic options for individual firms.

## MGMT66o Field Studies in Entrepreneurship

3 HRS
This course will provide hands-on experience in the challenges of building an entrepreneurial venture. Possible projects include feasibility studies, assessing value chain, technology transfer or merger and acquisition. Students will develop a variety of skills including decision making under uncertainty and delivering projects under strict cost, time and quality guidelines.

## MGMT679/680/68i Special Topics

$1 / 2 / 3$ HRS
Selected topic(s) from the field of management. Not more than six hours of special topics may be used on a degree program.

## MGMT688 Practicum in Human <br> Resource Management/

Organizational Development 3 hrs The opportunity to participate in a human resource management and/or organizational development project in an active organization under the close guidance of a practicing consultant. Students who have credit in MGMT690/ 691/692 may not take this course. Prereq: MGMT505, MGMT509, MGMT602, MGMT610, MGMT628 and at least two elective technique courses

## MGMT690/691/692 Thesis in Organizational Development I $/ 2 / 3$ HRS

Students will develop and defend an original research proposal in the area of human resource management and/or organizational development, collect and analyze data and prepare and defend a written report of their findings. Students who have credit in MGMT688 may not take this course.
Prereq: department permission
MGMT695 Seminar: Management 3 hrs A study of selected management issues and problems. Specific topics vary from semester to semester.

MGMT696 Strategic Management 3 hrs Focuses on the responsibilities of managing an organization from the perspective of the general manager. Integrates multiple business functions as part of formulating and implementing strategies that enable firms to strive for a competitive advantage and sustainable firm performance with ethical practices. Emphasizes application of strategic concepts to different business situations. Admission to the MBA program is required. Prereq: ACC501, ECON500, FIN502,
LAW503, MKTG510, POM503, MGMT505; and MGMT600, DS602, MGMT604, IS605; and ACC605, MKTG610, FIN620, DS605 Concurrent prereq: DS605

## MGMT697/698/699 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.

## Microbiology Courses

MICR ${ }^{2}$ o General Virology 3 hrs
A lecture course presenting the molecular nature and replicative strategies of virus families infecting vertebrates. Aspects of virus-induced transformation (tumorigenesis), cell pathology and immune-responses will also be covered.
Prereq: VTB2 Admissions to the MS in Biology
MICR54i Microbial Genetics 4 hrs A lecture and laboratory course on the hereditary mechanisms employed by microbes, both prokaryote and eukaryote. Methods of genetic manipulation of microbes for human benefit will be considered. Counts as a technique course. Prereq: department permission

## MICR555 Determinative

Microbiology
4 HRS
A lecture and laboratory course on the biochemical characteristics, isolation and growth of selected groups of microorganisms. Identification characterization, numerical taxonomy techniques and independent laboratory work will be emphasized. Counts as a technique course. Prereq: MICR444 and CHEM451, or equivalent

## MICR587 Cooperative Education in <br> Microbiology

3 HRS
Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in microbiology or technology. The program consists of work experience alternating with fulltime attendance at the University. Admittance to program by application only. Offered on a credit/ no-credit basis.
Prereq: department permission
MICR590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## MICR597/598/599 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem or group of problems under the direction of a faculty member.
Prereq: department permission
MICR679/680/68i Special Topicsi/2/3 hrs An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## MICR697/698/699 Independent Study

 I/2/3 HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Marketing Courses

MKTG $\ddagger$ io Marketing Management 3 hrs This course introduces students to the basic concepts, practices and analytical techniques of marketing. As such, it is designed to be comprehensive in scope, contemporary in outlook and managerial in orientation. It includes comput-erized-decision simulation and team work. Admission to the MBA program is required. Prereq/Coreq: ECON500

MKTG 520 International Business 3 hrs Analysis of the global economic, political, cultural and geographic environments and their impact on market entry. Strategies of multinational firms and survey of changes in marketing, finance, human resources and production policies resulting from international environmental differences.
Prereq: MKTG510

## MKTGj2s Global Marketing 3 hrs

 Global marketing issues are examined with emphasis on the design and implementation of strategies for global markets. Students gain knowledge and skills in cross-cultural issues as well as in global market segmentation and positioning, global marketing research, and global marketing mix. Case analyses and projects are utilized to this end.Prereq: MKTG510
MKTG53o E-Commerce Essentials 3 hrs This course provides an overview of e-business. It explores managerial issues related to economics, marketing and logistics of business transactions in the networked economy. Topics include information technology, value creation and delivery, supply-chain management, electronic financial markets, digital storefronts, digital payments and the ethical/legal issues involving electronic commerce that are highlighted in case studies.

MKTG590/591/592 Special Topics $1 / 2 / 3$ hrs The courses involve daily visitations to various types of domestic and/or foreign business enterprises where discussions are held in seminars concerning marketing and other business affairs. Subsequent seminar sessions are held by the instructor at a classroom arranged prior to the trip. Not more than six hours of special topics may be used on a degree program.

## MKTG597/598/599 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem, under the direction of graduate faculty members.

## MKTG6io Marketing Policies \&

Problems

3 HRS This course involves analysis and resolution of a variety of realistic marketing problems. Students utilize marketing tools and theory along with financial analysis in order to evaluate and select viable solutions. Admission to the MBA program is required.
Prereq: ACC501, ECON500, FIN502,
LAW503, MKTG510, POM503, MGMT505; and MGMT600, DS602, MGMT604, IS605
Concurrent preveq: IS605
MKTG62o Customer Satisfaction 3 hrs Defining and measuring customer satisfaction as a means to improve customer retention. Among the topics covered are the development of the concept of customer satisfaction as a way of doing business, measuring satisfaction, defining expectations and benchmarking.
Prereq: MKTG510

## MKTG63o Sales Operation

 Management3 HRS An intensive investigation of the sales function and its relationship to the total marketing program. Topics considered include setting sales objectives, formulation of sales strategy, development of sales organization, relationships with distributors and dealers, public policy as it relates to the sales function, analytical tools for forecasting sales, qualitative and quantitative measures of sales performance, control of sales operations, and integration of sales and other marketing functions. Reviews of the literature in the sales field and cases stressed.
Prereq: MKTG510
MKTG635 Internet Marketing 3 hrs Focuses on the marketing issues and practices relevant to computer-mediated environments such as the World Wide Web and other emerging electronic media. Students will develop an understanding of online consumers in shaping and influencing marketing strategy and will analyze marketing issues facing firms that want to compete on the Internet.
Prereq: MKTG510
MKTG64o Promotions Management 3 hrs An integrative decision-oriented course emphasizing the strategic function of an effective program of corporate promotions employing mass communications, personal selling, sales promotion, publicity and public relations.
Prereq: MKTG510
MKTG645 Database Marketing 3 hrs This course teaches how databases are properly created and effectively used in marketing. It offers an in-depth, practical coverage of the strategic and tactical decisions involved in marketing database development, maintenance, warehousing and mining. It emphasizes how organizations can establish and maximize their relationships with customers using databases.
Prereq: MKTG510

## MKTG6so Channels of Distribution

and Logistics
3 HRS Identification and analysis of problems involved in the development and operation of channels of distribution. Issues of trade structure and methods of cooperation among channel members are discussed from legal and managerial points of view. Specific analytical tools are developed for the individual firms in analyzing spatial arrangements of markets, plant and warehouse location, inventory systems and selections of carrier alternatives. Lecture, discussion and cases.
Prereq: MKTG510

## MKTG665 Seminar in Consumer

## Behavior

3 HRS A seminar designed to study theories and models of consumer behavior, with an emphasis on applications of theory to the development of marketing strategies.
Prereq: MKTG510

## MKTG67o Advanced Methods in

Marketing Research 3 hrs This course outlines the application of research methods to aid in marketing decision making. Included are approaches to problem definition, secondary data review, questionnaire development, data collection, data analysis and managerial interpretation, and the reporting of research findings. This course will also provide a detailed look at a computer-based statistical package (e.g., SPSS).
Prereq: MKTG510

## MKTG675 Market Planning and

## Forecasting

3 HRS
Development of student skills and techniques for strategic marketing planning and forecasting. Concepts relating to the mission, opportunity analysis, objectives, goals and programs will be explored. Individual planning and forecasting projects and exercises will be emphasized.
Prereq: MKTG510
MKTG679/680/68i Special Topics i/2/3 hrs Selected topic(s) from the field of marketing. Not more than six hours of special topics may be used on a degree program.
Prereq: MKTG510

## MKTG695 Seminar

3 HRS
The purpose of this seminar is to develop both an understanding of, and a point of view toward, some of the major problems of marketing that are dealt with briefly or not at all in required course work. Topics vary from year to year in accordance with the needs and interests of the students.
Prereq: MKTG510

## MKTG697/698/699 Independent Study I/2/3 HRS

An intensive study of a problem, under the direction of graduate faculty members.
Prereq: MKTG510 and department permission

## Music Courses

## MUSC504 America's Music 2 hrs

The diversified styles of music made and continuously used by the people of the United States in terms of our historical cultural traditions.

MUSCsos World Music
2 HRS The history, style and social basis of music from various cultures around the world. Will include comparisons between art music and popular music in Western and non-Western traditions.

## MUSCsil Survey of Harmonic Techniques

2 HRS
Compositional and harmonic techniques and practices of major composers of the 18th, 19th and 20th centuries.
Prereq: MUSC202 Music Theory IV or equivalent
MUSCsi3 Form and Analysis 2 hrs
Structural principles and techniques through analysis of representative works of the 18th, 19th and 20th centuries.
Prereq: MUSC202 Music Theory IV or equivalent
MUSCsi7 Music Composition I 2 hrs The creative process in music through analysis of traditional and new music; original composition in small forms, illustrating various techniques and media. May be repeated for credit.
Prereq: department permission
MUSCs46 Collegium Musicum I HR
Various ensembles of soloists - instrumental, vocal and mixed. Opportunity to perform old and new music infrequently heard. May be repeated for credit.

MUSC547 Collegium Musicum 2 hrs Various ensembles of soloists - instrumental, vocal and mixed. Opportunity to perform old and new music infrequently heard. Credit beyond one credit hour is earned through individual projects and research. May be repeated for credit.

## MUSC5so Ensemble

1 HR
Participation in any regular departmental ensemble as a means of expanding knowledge of literature, observing techniques of conducting and increasing efficiency in principal or secondary performance areas. Open to qualified students upon satisfactory audition. May be repeated for credit.
Prereq: department permission
MUSCssi Vocal and Instrumental

## Accompanying

2 HRS
Provides pianists or organists with experience in accompanying singers and instrumentalists, through acquisition of basic skills and repertoire. May be repeated for credit.
Prereq: department permission
MUSC56i Studies in Literature 2 hrs Topics to be selected from the following: piano, organ, vocal repertoire, band, orchestra, choir, solo song, chamber ensemble, opera or similar topics. Topics to be offered will be announced in the schedule of classes. May be repeated for credit with permission of adviser.

## MUSC576 Score Study and Rehearsal

Strategies for Music Educators 2 hrs In-depth analysis of representative band, orchestral and choral scores for the purpose of teaching and rehearsing.

MUSC $590 / 591 / 592$ Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may select this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department and adviser approval
MUSC595 Workshop in Music 2 hrs Topic to be announced in the schedule of classes. Topics usually will relate to some aspect of music education or performance, such as choral workshop, string workshop, band workshop, keyboard workshop, general music workshop, chamber music workshop or some similar topic. May be repeated for credit.

## MUSC597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems, under the direction of a University faculty member. May be repeated for credit.
Prereq: department permission

## MUSC6oi Introduction to Graduate

## Studies <br> 2 HRS

An introductory course in scholarly research and writing that includes library orientation for the music researcher, basic types of music research, evaluation of basic source materials for music research, style for writing and documentation of scholarly research and organization of a bibliography.

MUSC6r3 Advanced Form and Analysis 2 hrs In-depth structural analysis of masterworks from the general concert repertoire.

MUSC6it Music Composition II 2 hrs Original composition based upon techniques of the 20th century; composition of works of moderate length. May be repeated for credit.
Prereq: MUSC517 or equivalent
MUSC6i8 Music Composition III 2 hrs Original composition in larger forms, with the intent of performance. May be repeated for credit. Prereq: MUSC617

MUSC63i Renaissance Music 2 hrs Selected works representing the forms, styles and idioms of the 15 th and 16th-centuries.

## MUSC632 Baroque Music

2 HRS
Selected works representing some of the styles and idioms of the 17th century, and of the early and mid-18th century (Bach, Handel).

MUSC633 Music in the Classic Era 2 hrs The development of musical style and form in the classical era, principally in the works of Haydn, Mozart and Beethoven.

MUSC634 Music in the Romantic Era 2 hrs The development of musical style and form in the romantic era. Intensive study of selected compositions.

## MUSC635 Music of the 20th

## Century

2 HRS
Study of major works, composers and aesthetic systems of 20th century music. Selected works to be announced each time the course is offered.

## MUSC638 The New Music 2 hrs

Examination of the new music; its sound, sources, structures, notation, performance and perception. Listening, study, discussion and performance, covering vocal, instrumental and electronic techniques.

## MUSC642 Foundations of Music

Education
2 HRS
The study of the development of music education in the United States and the influence of philosophy upon development.

## MUSC66o Studies in Pedagogy 2 hrs

 Topics may be selected from the following: piano, organ, voice, vocal diction, brass, woodwind, strings, theory, literature, percussion or similar subjects. Topics to be offered will be announced in the schedule of classes. May be repeated for credit with permission of adviser.
## MUSC678 Advanced Methods and <br> Conducting Techniques for Music Educators 2 hrs

 In depth study of interpretative factors and subtle baton techniques for the advanced conductor. Study of conducting styles and analysis of representative band, orchestra and choral scores.
## MUSC679/680/68i Special Topics $1 / 2 / 3$ HRS

An intensive study, at an advanced level, of special topics that may not be covered in the regular course offerings. Topics must be approved by the department head. May be repeated for credit with permission of adviser. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
MUSC687 Graduate Recital 2 hrs Required in partial fulfillment of the master of arts degree for those students concentrating in performance, and for those students who qualify for and select recital as a culminating option. Students must be enrolled in Applied Music courses 601/602/603/604 concurrently.

## MUSC69r Thesis <br> 2 HRS

A substantial and original undertaking in scholarly research, designed to reflect, focus and deepen the student's individual interests and to provide a culminating work leading to a master's degree in music.
Prereq: department permission
MUSC692 Final Project
2 HRS
A creative, analytical or pragmatic project of a substantial and original nature, designed to
reflect the student's individual interests and to serve as a culminating work leading to a master's degree in music. Final projects may be of several types, such as lecture-recital, original composition and analytical paper, annotated bibliography or discography, survey, unit of study or course outline.
Prereq: department permission

## MUSC694 Seminar <br> 2 HRS

Topics may be in some area of music education, theory, literature, history, musicology or performance. May serve for the development of research proposals, literature reviews, research techniques or other similar purposes. May be repeated for credit with permission of adviser.

## MUSC697/698/699 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem or group of problems, under the direction of a University faculty member. May be repeated for credit.
Prereq: department permission
Applied Music Courses 551/552/553/554 Applied Music - Secondary Performance

I/2 HRS
Open to majors and non-majors. May be repeated for credit.
Prereq: audition

## Applied Music Courses 65i/652/653/ 654/661/662/663/664 Applied Music Performance I/2 HRS

Open to performance majors and graduate students who complete an undergraduate concentration in performance. May be repeated for credit. Prereq: audition

## Nursing Courses

NURSjoo Advanced Pathophysiology 3 hrs This course provides advanced knowledge of normal and pathophysiologic mechanisms of disease, providing the foundation for clinical assessment, decision making and management in advanced practice nursing. The student will be able to relate this knowledge to interpreting changes in normal function indicative of illness and in assessing an individual's response to treatment.

## NURSsoz Advanced Health

 Assessment3 HRS
This course provides the advanced practice nurse with the theory and skill to perform a complete history and physical examination of the adult client and builds on skills the student has acquired in a basic health assessment and experience. The course focus is on refining and expanding advanced examination techniques and differential diagnosis of common health problems.

## NURSso6 Nursing Theory for Practice and Research 3 hrs

 This course focuses on interrelationships among theory, research and clinical practice within nursing's body of knowledge. Students will analyzeand evaluate conceptual models and theories for application to practice and research.

NURS590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## NURS597/598/599 Independent Study

 I/2/3 HRSAn intensive study of a selected professional problem, under the direction of a faculty adviser.
Prereq: department permission

## NURSGos Health Status Trends and

 Health Care Delivery Systems 3 hrs Focuses on health care delivery systems as complex social systems. The student will explore national health status trends and their impact on local health care delivery. Students will assess, analyze and evaluate the physical, legal, ethical, political and technical dimensions of health care systems as environments for delivery of client services.
## NURS6o7 Evolving Roles of Nurses in

Health Care Delivery Systems 3 hrs This course focuses on professional development for advanced-practice roles. It includes advanced leadership and collaborative skills, strategic planning, financial management, total quality management, various models of nursing governance and competing power paradigms. Students use this knowledge in the development of strategies for clinical systems management. The course provides a forum to explore ways to facilitate client care within various organizational environments. Graduate students only for NURS607.

## NURS6og Trends in Nursing Management

3 HRS This course focuses on management issues that influence the advanced-practice nurse in healthcare delivery systems. Students analyze systems theory, management roles and leadership concepts including delegation and supervision. They examine financial issues including budgeting and wages. Students examine combinations of leadership approaches and strategies to meet quality and cost outcomes.

## NURS6io Research Design, Methods

and Analysis
3 HRS
This course focuses on types of design, methods, sources of knowledge and analyses useful to the consideration of selected nursing research problems, with a focus on using research-based knowledge in practice. This course builds on the foundations of research critique and utilization studied at the baccalaureate level. Students develop a beginning proficiency in critiquing nursing research studies. Students critique clinical, educational and systems research in nursing.
Prereq: NURS506

NURS6I4 Seminar: Proposal
Development
2 HRS
This course focuses on the application of the research process in nursing. Students will develop a beginning research proposal to address a nursing research question. Students develop practical skills related to the coding of data, analysis of research data and use of a computer statistical analysis package.
Prereq: NURS610

## NURS62o Teaching in Health Care Systems: Instructional Strategies and Skills 3 HRS

This course focuses on theories, strategies and research related to the teaching/learning process in health care systems. Issues and trends influencing effective teaching and learning are addressed.

## NURS622 Teaching in Health Care

Systems: Curriculum/Program
Development and Evaluation 3 hrs Focuses on curriculum theory, design, implementation, evaluation and research specific to health care systems. Students participate in small-group experiences assessing curriculum issues in health care settings, and applying curriculum theory and instructional design.

## NURS624 Practicum in Teaching in <br> Health Care Systems

This clinical practicum focuses on teaching in health care systems under the mentorship of a selected faculty member or preceptor. The student will apply knowledge synthesized from teaching/learning theory. Three-hour practicum, 135 precepted contact hours.
Prereq: NURS620 and NURS622

## NURS6go Advanced Adult Health

Nursing I
3 HRS
This course focuses on clinical decision making in advanced practice nursing as well as independent and interdependent nursing interventions applicable to clients with acute or chronic health problems. Students use assessment data along with clinical decision-making skills to arrive at nursing diagnoses and collaboratively define goals based on this data. Course combines theoretical content with student-selected and instructor-approved preceptor guided clinical practice. Two-hour seminar, one-hour clinical ( 45 precepted clinical hours).
Prereq: NURS500, NURS502, NURS506

## NURS66o Advanced Adult Health

## Nursing II

3 HRS
This course focuses on selected knowledge derived from an eclectic approach in developing advanced nursing interventions related to health promotion and risk reduction. Theories and research from nursing, public health, education and psychology are investigated and applied to the development of strategies and interventions that promote health and wellness and prevent disease. Two-hour seminar, one-hour clinical ( 45 precepted clinical hours).
Prereq: NURS500, NURS502, and NURS506

## NURS66s Practicum in Adult Health

 Nursing3 HRS
This clinical practicum focuses on delivery of advanced nursing care to adults. Students will focus on systems, such as case management - "managing" care for groups of clients with similar health concerns in given health settings. The course emphasizes the synthesis of knowledge related to client care. The student selects her/his own setting based on individual goals and objectives, and works under the mentorship of a selected clinical preceptor. Three-hour clinical, 135 precepted clinical hours.
Prereq: NURS650 and NURS660

## NURS675 Practicum in Systems

Management
3 HRS
This clinical practicum focuses on management of clinical systems within health care organizations under the mentorship a selected preceptor. The student will apply knowledge synthesized from organizational theory, nursing theory, nursing research, nursing systems, human resource management and financial management. Students select their own setting based on individual goals and objectives. Three hour practicum, 135 precepted contact hours.
Prereq: NURS607 and NURS609
NURS679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
NURS688 Field Study
2 HRS
Development of a major research project completed under the direction of a research adviser.
Prereq: NURS614
NURS693 Thesis
4 HRS
Development of an original study that contributes to nursing knowledge. Completed under the guidance of a major professor and thesis committee.
Prereq: NURS614

## NURS697/698/699 Independent Study I/2/3 HRS

An intensive study of a selected professional problem, under the direction of a faculty adviser.
Prereq: department permission

## NURS7oo Adult Nurse Practitioner I: History, Role, Leadership, Trends 2 hrs

 This introductory course will focus on the professional role of the adult nurse practitioner (ANP) in a primary care setting. Content relevant to history, leadership and trends of the ANP role is presented. The clinical component allows the student to demonstrate beginning skills in the management of client health/illness status.
## NURS702 Adult Nurse Practitioner II:

 Primary Care Nursing in Health Promotion and Acute Illness 8 hrs This course focuses on the adult nurse practitioner (ANP) in the primary care of adults with acute illness and health promotion needs. The didactic component provides the student with the theoretical and scientific principles to diagnose health conditions and prescribe interventions, including medication. A preceptored clinical experience allows application of learned skills.Prereq: NURS700.

## NURS704 Adult Nurse Practitioner III: Primary Care Nursing in Chronic Illness <br> 9 HRS

This course will focus on the adult nurse practitioner's role in the primary care of adults with chronic illness needs. The didactic component provides the student with the theoretical and scientific principles to diagnose and prescribe interventions, including medication. A preceptored clinical experience allows application of learned skills.
Prereq: NURS702
NURS779/780/78I Special Topics i/2/3 hrs An exploration and study of topics not covered in other program offerings. Student may elect more than once, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## NURS $797 / 798 / 799$ Independent Study $^{\prime}$ I/2/3 HRS

An intensive study of a selected professional problem, under the direction of a faculty adviser.
Prereq: department permission

## NURS809 Applied Pharmacology for

Primary Care Practitioners 3 hrs This is a summer graduate course in the College of Nursing, Michigan State University. Eastern Michigan University students enroll in this course as guest students.

## Occupational Therapy Courses

## OCTHsoo Philosophy of Occupational Therapy <br> \section*{3 HRS}

Through readings and group experiences, the students will collectively develop an understanding of the philosophy of occupational therapy. This course includes observations in occupational therapy settings, analysis of experiences and examination of the documents of the profession to develop a view of occupational therapy practice today.
Prereq: admission to program

## OCTHgoz Theory and Analysis of Occupation

3 HRS Students will use laboratory, discussions, lecture, readings, observations and interviews as methods of learning about the science of occupation. This course places emphasis on the individual's experience of occupation, and the exploration of its personal, social and cultural meanings.

OCTHsi6 Level I Community Fieldwork II

3 HRS Students will complete a part-time fieldwork experience in a community agency. Fieldwork experiences will be accompanied by a seminar.
Prereq: OCTH502, and ZOOL417

## OCTHsif Level I Community

 Fieldwork III3 HRS
Students will complete a part-time fieldwork experience in a community agency or in an occupational therapy setting. Students will also participate in a directed seminar.
Prereq: OCTH516, OCTH640 and ZOOL417. Coreq: OCTH619

OCTHsis Programming II 6 hrs Students will have opportunities to learn methods of evaluating occupational performance issues present in selected conditions that affect individuals from adolescence to middle adulthood. The effect of environmental, cultural and social factors on occupational performance is emphasized. Students use critical thinking skills to develop intervention plans using theoretically sound techniques.
Prereq: OCTH419 and OCTH420; Coreq:
OCTH516. Senior and master's students only

## OCTHszo Advanced Theory of

Practice
2 HRS
Introductory graduate course to be taken by all entering students. Provides students with a systematic method for analyzing areas of practice.
Prereq: admission to the M.S. program

## OCTH 530 Critique of Occupational

Therapy Theory 2 hrs
Provides the student with the opportunity to critically examine the major models of occupational therapy practice.
Prereq: admission to the M.S. program
OCTH540 Research Methods I 3 hrs
This course introduces students to research methods used in occupational therapy. Students develop beginning skills in formulation of research questions, proposal development, approaches to design and implementation, and dissemination of results. Students choose research advisers and begin to participate in research with their adviser.
Prereq: MATH360, MATH370, MATH571,
MATH574, SOCL250, EDPS621 or EDPS651;
junior, senior and master's students only

## OCTH588 Fieldwork Level II: Clinical <br> Skills <br> 6 HRS

Students will be assigned to a 12 -week fieldwork experience designed to develop and refine clinical skills. This may be completed on a part-time or a full-time basis.
Prereq: completion of all academic work and faculty approval

## OCTH589 Fieldwork Level II: Clinical

 Skills6 HRS Students will be assigned to a 12 -week fieldwork experience designed to develop and refine clinical skills. This may be completed on a part-time or a full-time basis

Prereq: completion of all academic work and faculty approval

## OCTH590/591/592/593 Special Topics

 I/2/3/4 HRSThe content of these courses will vary from semester to semester. Topics in occupational therapy that are not offered in regular course offerings will be covered. Not more than six hours of special topics may be used on a degree program.

## OCTH597/598/599 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem or a group of problems, under the direction of a University faculty member.
Prereq: permission of graduate coordinator
OCTH6oo Supervision and Professional Roles

3 HRS
This course covers the management of occupational therapy services in multiple environments. Students will learn grant-writing skills and complete a capstone project developing an OT program for use in a non-traditional setting.
Prereq: OCTH619 and OCTH517
OCTH6ig Programming III 6 hrs Students will have the opportunity to learn methods of evaluating occupational performance issues that affect individuals from middle to older adulthood. The effect of environmental, cultural and social factors on occupational performance is emphasized. Students use critical thinking skills to develop intervention plans using theoretically sound techniques.
Prereq: OCTH519, OCTH516. Coreq:
OCTH517. Master's students only

## OCTH640 Methods of Occupational Therapy Research <br> 2 HRS

In this course, students will examine the current status of research in occupational therapy, identify the research design concerns that are inherent in the profession and develop a thesis proposal.
Prereq: OCTH520, OCTH530 and the required series of research and statistics courses

OCTH679/680/68I Special Topics i/2/3 hrs The content of these courses will vary from semester to semester. Topics in occupational therapy that are not offered in regular course offerings will be covered.

OCTH686 Culminating Project I 3 hrs Under the direction of their research adviser, students will carry out a research project and develop beginning proficiency in proposal development and research skills. The completion of the project will occur in OCTH687.
Prereq: OCTH540
OCTH687 Culminating Project II 3 hrs Under the direction of their research adviser, students will complete research projects begun in OCTH686 and dissemate their findings. This is the culminating project in the research sequence of the master's of occupational therapy (MOT) degree.
Prereq: OCTH686

OCTH690/69I/692 Thesis I/2/3 HRS
Individual research conducted under the guidance of, and in consultation with, a thesis committee and the graduate coordinator.
Prereq: department permission
OCTH693/694/695/696 Seminar in
Occupational Therapy $1 / 2 / 3 / 4$ hrs The focus of these courses will vary from semester to semester. These courses are designed to allow intensive analysis of specialized occupational therapy content.

## OCTH697/698/699 Independent Study I $/ 2 / 3$ HRS

An intensive study of a problem or a group of problems, under the direction of a University faculty member.
Prereq: permission of graduate coordinator

## Physical Education Courses

## PHEDsos Basic Statistics in Physical

 Education3 HRS A required course for graduate candidates in the physical education program. A study of statistical techniques including descriptive and inferential parametric/non-parametric tests.

PHEDso6 Test Construction 2 hrs Types of written tests and examinations; construction, selection and interpretation of results.

## PHEDs2i Legal Liability of Educators

and Athletic Coaches 2 hrs A course designed to provide an opportunity for students to explore the provisions of state legislation, common law, governmental immunity and the legal defenses to the tort of negligence as they relate to the avoidance of being successfully named as a defendant in civil litigation alleging professional negligence.

PHEDs42 Advanced Human Physiology 3 hrs An advanced examination of the functioning of the human organism covering topics not covered in detail in an introductory human physiology course or other departmental offerings. The emphasis is on the interaction of body systems and their application to the field of sports medicine.
Prereq: SPMD201/202

## PHEDs65 Problems in Intramural and

 Extramural Sports 2 hrs Organization and administration of intramural and extramural sports in junior and senior high schools; practical aspects of programming for groups and individuals.PHEDs66 Sport in American Society 2 hrs A study of the significance of sport in American society, with emphasis upon sport in the context of American culture, sport and social institutions in American society, socialization and sport, and some projections concerning the future of American sport.

PHEDs68 Physical Fitness 2 hrs
Current theories and practices in the development of physical fitness in our society; evaluation of school programs.

## PHEDs7o Critical Analysis of Physical Education <br> 2 HRS

The expanding of physical education and the physical educator; and analysis of research in the foundation sciences and in philosophy.

## PHED572 Design and Implementation of Wellness Programs <br> 3 HRS

A required course for the adult/corporate fitness concentration in the master's degree program in physical education. Instruction covers the essential skills needed to design and implement adult wellness programs.

## PHED578 Motor Development and <br> Learning 2 HR

A study of the development of motor skills in children as related to their age and growth patterns, with an investigation of major theories and research in learning as applied to motor skills.

## PHED579 Physical Education for the Mentally Impaired <br> 2 HRS

Physical education curriculum and programming for the mentally impaired. Content includes program goals, assessment, prescription, teaching and program evaluation. Emphasis will be placed on adapting materials and utilizing alternative teaching strategies to individualize instruction.

## PHED 580 Comparative Physical

 Education2 HRS
The historical heritage of physical education from early Greek studies of aims, objectives and programs of ancient and modern cultures.

## PHED 58 ri Physical Education for

Students with Disabilities 2 hrs Physical education curriculum and programming for the student with a disability. Content includes program goals, assessment, prescription, teaching and program evaluation. Emphasis will be placed on adapting materials and utilizing alternative teaching styles to individualized instruction in both inclusion and self-contained teaching situations.

PHED582 Skill Analysis 2 hrs
A class designed to further analyze skills. A skillanalysis model will be developed based upon research from motor behavior and biomechanical theory.
Prereq: kinesiology or instructor permission

## PHED 83 Teaching Effectiveness in <br> Physical Education

2 HRS
An examination of effective teaching by establishing realistic objectives, observation and analysis of instruction. A study of teaching strategies and current research related to teaching in physical education.

## PHED 584 Physical Education

## Curriculum and Instructional

## Design

2 HRS
A lecture and discussion course for the graduate student in physical education. This course will define curriculum, explore the basis for curriculum planning, establish an organizational plan for developing curriculum and evaluate an established physical education program.

## PHED 587 Philosophy of Physical

Education/Sport
2 HRS
Philosophy and its relationship to physical education and sport, metaphysics, the mind/body problem, epistemology, axiology (ethics and aesthetics), and social, religious and political philosophy relative to sport and physical education.
Prereq: major/minor
PHED $590 / 591 / 592$ Special Topics $1 / 2 / 3$ hrs Experimental course(s) designed to investigate specific topics of concern in the specialization areas of study in physical education. Not more than six hours of special topics may be used on a degree program.

PHED594/595 Workshop I/2 hrs A specialized workshop in the area of physical education, with the central theme to be announced.

## PHED 596 Biomechanics of the

Musculo-Skeletal System 3 hrs A required course for the biomechanics concentration in the master's degree program in physical education. Instruction will focus on biomaterials, joint motion, measurement techniques and approaches to modeling biomechanical systems.
Prereq: PHED200, PHED300 and PHY221

## PHED597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem under the direction of a University faculty member.
Prereq: department permission
PHED606/607/608 Colloquium I/2/3 HRS
PHED630 Electrocardiography 3 hrs Electrocardiography including EKG leads, waves, time intervals, rate, normal rhythm, arrhythmias, axis determination, hypertrophy, ischemia, injury, infarction, blocks, pacemaker rhythm and drug effects on the EKG.

## PHED637 Techniques of Graded Exercise Testing

3 HRS Techniques of graded exercise testing involved in the various populations; e.g., from the young healthy athlete to the older/diseased population. Prereq: PHED630

## PHED642 Advanced Exercise

## Physiology I

3 HRS
Biochemistry of energy metabolism; biophysical functional concepts related to interaction of nerve and muscle; and response to training. Theoretical concepts are supported by practical experience in the human performance laboratory.
Prereq: SPMD200, PHED300 and CHEM120, or equivalent

PHED644 Advanced Exercise
Physiology II
3 HRS
Cardiovascular and respiratory concepts related to exercise, training, health, disease and aging, supported by practical experience in the human performance laboratory.
Prereq: SPMD200 and PHED300, or equivalent

## PHED6so Biomechanics I: Kinematics of

 Human Motion3 HRS
A study of human movement from a mechanical perspective. A required class in the biomechanics track for the sports medicine concentration. Instruction focuses on concepts and research techniques in kinematic analyses.
Prereq: undergraduate physics, kinesiology or permission of instructor

## PHED652 Biomechanics II: Kinetics of

Human Motion
4 HRS
A course devoted to the understanding and quantification of internal and external forces affecting human movement(s).
Prereq: PHY221, SPMD200 and PHED650
PHED665 Sport Psychology 2 hrs This course will attempt to familiarize the student, whether coach, athlete or teacher, with scientific psychology as it relates to sport. The complex nature of optimal performance requires that an integrated psychological and physiological approach be employed. Therefore, theoretical and empirical evidence from the fields of psychology, applied physiology and sports medicine will be used to help the teachercoach be more effective.

## PHED677 Research, Theory and Design in Physical Activity <br> 3 HRS

An examination of qualitative and quantitative research, the components of a research proposal, research methodologies (descriptive, analytical, experimental, philosophical and historical), reliability and internal and external validity, and descriptive and inferential statistics as related to movement sciences and the development of the first three chapters of a thesis proposal.

PHED679/680/68ı Special Topics $1 / 2 / 3$ Hrs Experimental course(s) designed to investigate specific topics of concern in the specialization areas of study in physical education. Not more than six hours of special topics may be used on a degree program.

PHED686/687/688/689 Internship $1 / 2 / 3 / 4$ HRS A directed field experience in a department-approved agency or institution under the direction of certified personnel. Arrangements must be made by adviser prior to registration

PHED690/69I/692 Thesis I/2/3 hrs Completion of research and/or analytical problem, writing of thesis and committee approval of same. Prereq: department permission

## PHED694 Seminar-Physical

## Education

2 HRS
A specialized seminar in the area of physical education, with the central theme to be announced.

## PHED697/698/699 Independent Study

 I/2/3 HRSAn intensive study of a problem under the direction of a University faculty member.
Prereq: department permission

## Philosophy Courses

PHIL590/591/592 Special Topics 1/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. May be repeated for credit. Not more than six hours of special topics may be used on a degree program.

## PHIL597/598/599 Independent Study

 1/2/3 HRSAn intensive study of a problem or group of problems, under the direction of a University faculty member.
Prereq: department permission

## PHIL697/698/699 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem or group of problems, under the direction of a University faculty member.
Prereq: department permission

## Physics Courses

## PHYsii Mechanics, Sound and Heat for Teachers <br> 3 HRS

A study of motion, forces, heat and sound for teachers of general science who have had little or no previous experience with physics.
Prereq: MATH105 and MATH107, or equivalent

## PHYsiz Light, Electricity, and

Magnetism for Teachers
3 HRS A study of light, electricity and magnetism for teachers of general science who have little previous experience with physics.
Prereq: PHY511; may be taken concurrently

## PHYSI4 Instrumentation for

 Teachers3 HRS
This course introduces the fundamentals of electrical instruments and the care and use of those instruments commonly encountered in secondary school science and in general science courses.

PHYsis Atomic and Nuclear Physics I 2 hrs A study of relativity, the quantum properties of waves and the wave properties of particles, the Bohr atom, atomic spectra, and wave machines. Not open to students with credit in PHY370.
Prereq: PHY222, PHY224 or PHY512

## PHYsi6 Atomic and Nuclear

 Physics II2 HRS
A study of nuclear structure, radioactive decay, detection and measurement of nuclear radiation, nuclear reactions, fission, fusion and elementary particles.
Prereq: PHY515

PHY520 Teaching of Physical Science 2 hrs Scientific attitudes for use with elementary pupils, the scientific method, a selected group of physical principles, simple experiments which may be used in elementary school.

## PHY 540 The History of Physics and

 Astronomy2 HRS A course designed to give students an understanding of the contributions made by selected scientists to the development of physics and astronomy, and the relationship of these ideas to the period in which the scientists lived.
Prereq: three courses in physics and/or astronomy (one may be taken concurrently)

## PHY54i Modern Optics

3 HRS
A course dealing with those aspects of physical and quantum optics that are essential for the quantitative description of modern optical technology such as lasers and holography. Emphasis is on physical optics. Topics covered include application of Fourier Transform to diffraction holography, Fresnel reflection coefficients, propagation of light in crystals, coherence and partial coherence, and lasers.
Prereq: PHY440 and MATH223 or equivalent
PHY 576 Solid State Physics 3 hrs An introduction to the principles and phenomena associated with the solid state: crystal structure, lattice waves, free electron model, band theory, properties of solids, imperfections.
Prereq: PHY350 and PHY475, or equivalent

## PHY587 Cooperative Education in

 Physics3 HRS
The course involves a cooperative education experience for the equivalent of one semester, full time. A written report is required at the end of the employment. Offered on a creditno-credit basis. Credit on a graduate program is subject to departmental approval.
Prereq: department permission
PHY 590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.

## PHY594/595/596 Workshop in Physics

 I/2/3 HRSLaboratory and/or field experience guided toward problems and new curricula in physics and physical science.
Prereq: department permission

## PHY597/598/599 Independent Study/ <br> Research $\quad 1 / 2 / 3$ hrs

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

PHY622 New Approaches to the Teaching of Science in the Junior High School I

2 HRS
Emphasis will be placed on the philosophy, content, teaching strategies and implementation of newer science curriculum materials designed for use in the junior high or middle school. Needed subject matter background will be provided. Extensive hands-on experience with demonstration and laboratory equipment will be included.
Prereq: science teaching experience or three laboratory science courses

## PHY623 New Approaches to the

 Teaching of Science in the Junior High School II 2 hrs Emphasis will be placed on the philosophy, content, teaching strategies and implementation of newer science curriculum materials designed for use in the junior high or middle school. Needed subject matter background will be provided. Extensive hands-on experience with demonstration and laboratory equipment will be included.Prereq: science teaching experience or three laboratory science courses

## PHY6so New Approaches to Teaching Physics I

2 HRS
Designed to increase the subject matter competency of those teaching or preparing to teach high school physics. Content, organization, problems and philosophy of the latest high school physics text materials.
Prereq: MATH12O and either PHY222 or
PHY224 or PHY512

## PHY6si New Approaches to Teaching

 Physics II2 HRS
Designed to increase the subject matter competency of those teaching or preparing to teach high school physics. The content, organization, problems and philosophy of the latest high school physics text materials.
Prereq: MATH120 and either PHY222, or PHY224 or PHY512

PHY662 Advanced Mechanics I 3 hrs This course considers exactly soluble problems in the mechanics of discrete and continuous media. Prereq: department permission

PHY67i Electromagnetic Theory 4 hrs Provides the student with a foundation in the classical theory of the Maxwell field equations and indicates the many current applications. Typical topics covered are: Maxwell's equations, conservation laws, plane waves, wave guides, resonant cavities, dipole radiation, diffraction, radiation by moving charges, Bremsstrahlung, Cerenkov radiation, multiple fields, plasma electrodynamics.
Prereq: PHY450 or equivalent
PHY675 Quantum Mechanics 4 hrs The Schroedinger equation and its applications in three dimensions, angular momentum, electron spin, Heisenberg's matrix mechanics, Dirac notation, perturbation theories, variational
methods, scattering theory.
Prereq: PHY475 or equivalent
PHY679/680/68i Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.

## PHY682/683/684 Workshop in Physics

 I/2/3 HRSLaboratory and/or field experience guided toward problems and new curricula in physics and physical science.
Prereq: department permission

## PHY687/688 Cooperative Education in Physics <br> 2/3 HRS

The course involves a cooperative education experience for the equivalent of one semester, full time. A written report is required at the end of the employment. Offered on a credit/no-credit basis. Credit on a graduate program is subject to departmental approval.
Prereq: department permission

## PHY690/691/692 Thesis/Final Project

 1/2/3 HRSIntensive research in physics or physics education including the submission of a thesis or written report under the direction of a research adviser.
Prereq: department permission
PHY693/694/695 Seminar in Physics i/2/3 hrs Presentation of special reports and group discussion on selected topics in physics and physical science.

## PHY697/698/699 Independent Study/

Research $\quad 1 / 2 / 3$ hrs An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Political Science Courses

## PLSCsio Modern Public

Administration
3 HRS
An overview of the nature of public administration and its relation to politics and the tasks of the modern political system.
Prereq: department permission

## PLSCsis Public Personnel

## Administration

3 HRS
This course examines contemporary administration practices in public sector personnel management, particularly as related to the local level of government. Areas of emphasis include the collective bargaining process, discipline practices, grievance handling and arbitration preparation, affirmative action requirements
and recruitment, and validation of evaluation and promotion practices.
Prereq: department permission

## PLSC 20 Land Use and Preservation

Law
3 HRS
A study of real property law in a political and legal context, with special emphasis on the private law devices of easement and covenants running with the land, and on the public device of zoning.

## PLSCs4o Public Budget

Administration
3 HRS
Part one of a two-semester sequence, this course examines varying approaches to public sector budgeting, the political context of budgeting decisions, and critical steps in preparing public budgets.
Prereq: department permission

## PLSC543/AAS543 Civil Rights and the

African American Experience 3 hrs AAS543/PLSC543 Civil Rights and the African American Experience will explore the impact of race as a dominant and dynamic force that has shaped the interpretation of the Constitution and subsequent Civil Rights Acts. Students will critically examine how Black communities organized for change and how the Civil Rights movement contributed to American political reform.

PLSC 5 so Ethics and Government 2 hrs This course explores the moral and ethical dimensions of government action. It seeks to enhance the capacity of professionals to practice sound ethical judgement in the exercise of administrative and public leadership roles.

## PLSCj6s Studies in State and Local Government <br> 2 HRS

Studies in the governmental process at the state and local levels. Focuses on current issues and problems, including the changing aspects of federalism.

## PLSC58i Contemporary Problems in

## American Government 2 hrs

Executive-legislative relationships, judicial review, the making of foreign policy, national defense, public welfare, the electoral process and the role of the citizen in American government.

## PLSC587 Cooperative Education in Political Science

3 HRS
Four to six months full-time employment in the public sector. The program consists of one or two directed work experiences alternating with full-time University attendance. Application of credit toward political science programs is subject to departmental approval. Offered on a credittno-credit basis.
Prereq: department permission
PLSC590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Information on content can be obtained at the department
office. Not more than six hours of special topics may be used as part of a degree program.

## PLSC597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems, under the direction of a University faculty member.
Prereq: department permission
PlSC6io Public Organization Theory 3 hrs
An analysis of theories of organization in relation to government and public institutions.
Prereq: department permission
PLSC6is Public Budget Applications 2 hrs Focuses on an assessment of budgetary alternatives, reforms and innovations in the public sector. A budgeting simulation provides interactive experience with public sector budgeting practices.
Prereq: PLSC540, and department permission to register

PLSC620 Administrative Law 2 hrs The administrative/regulatory process in the legal context; the delegation doctrine, judicial review of the procedures and substance of administrative action.

## PLSC625 Local Government

## Management

2 HRS
Administration and political problems encountered in the management of local governments, focusing on case studies in city-manager style cities.

## PLSC63o Public Bureaucracies and Policy Formation <br> 3 HRS

Focuses on the role of bureaucrats in public policy making. Examines both national and local policy making, and follows the process from agenda setting through evaluation.
Prereq: department permission

## PLSC635 Public Policy Analysis

Techniques and Applications 2 hrs An advanced graduate-level course dealing with current policy analysis techniques and applications, decision making, resource allocation and impact analysis.
Prereq: PLSC677 or other quantitative methods class recommended by the M.P.A. adviser

## PLSC64o Modern County

 Government2 HRS
Examines the past, present and future of county government in the United States. Topics covered include the legal setting, organization and structure, intergovernmental relations, politics, finances and service capabilities of counties.

## PLSC645 Intergovernmental

 Relations2 HRS
A study of recent trends in the American federal system. The course examines the major programs and organizational structures used to coordinate public policies at the federal, state and local levels of government. Emphasis will be placed on the concerns of local levels of government.

PlSC6so Urban Poverty Policy 2 hrs This course provides an overview of the historical development, extent and causes of urban poverty. The politics of urban poverty will be explicitly examined.

PLSC655 Politics of Local Planning 2 hrs An examination of the political and administrative aspects of governmental planning, primarily local land-use planning. The course focuses on the political nature of planning, political conflict in the planning process, and the organizational and administrative context of local government planning.

PlSC66o Public Health Care Policy 2 hrs Focuses on the governmental role in health care delivery and regulation. Follows various programs through the policy process from agenda setting to evaluation. Topical issues include cost containment and managed care.

## PLSC665 Basic Arbitration Training for Professionals <br> 2 HRS

A basic introduction to the major areas of public-sector labor arbitration, focusing on arbitrability, just-cause principles and evidence. Active participation in an arbitration simulation is required.

## PLSC677 Analytical Methods for

## Public Administration

2 HRS Part one of a two-semester sequence, this course introduces analytical methods utilizing a case method approach applicable to public sector applications.

## PLSC678 Analytical Techniques for

Public Administration
3 HRS
This course provides students with an introduction to analytical research techniques for quantitative data analysis utilized in public sector management. This course requires preparation of a research proposal.
Prereq: PLSC677 and department permission
PLSC679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
PLSC688 Practicum in Public Affairs 3 hrs Extends classroom learning through administrative experience with public sector agencies. Includes written assignments and a seminar designed to help students relate their field experience to public administration concepts.
Prereq: department permission

## PLSC695 Research Seminar in Public

## Administration

2 HRS A capstone course in the public administration curriculum, acquainting students with the major research trends and problems in the discipline. Requires from the student a substantial research project, to be reviewed by three faculty members.

Prereq: graduate status, department permission and PLSC510, PLSC515, PLSC540, PLSC610, PLSC615, PLSC630 and PLSC678

## PLSC697/698/699 Independent Study

 1/2/3 HRSAn intensive study of a problem or group of problems, under the direction of a University faculty member.
Prereq: department permission

## Production/ Operations Management Courses

## POMgoz Production/Operations

 Management3 HRS
Examination of planning, operation and control activities of manufacturing and service organizations leading to products and services that satisfy customer needs. Topics include: quality management, demand forecasting, capacity and production planning and scheduling, SCM, JIT, product and process design and facilities location and layout.

## POMs74 Design of Production/ Operations Systems

3 HRS
An in-depth qualitative, quantitative and computerized analysis of problems related to the design of manufacturing and nonmanufacturing systems. Topics include productivity, product and service design, process planning, job design and work measurement, facilities location, layout of facilities and facilities maintenance.
Prereq: POM503 or equivalent

## POM575 Production and Inventory

 Control I3 HRS
This is a two-course sequence in production and inventory management. Topics include differences between production-to-stock, production-to-order and assemble- or finish-to-order, strategic planning, production planning, forecasting of production requirements, master production scheduling, inventory management for dependent and independent demand items, material requirements planning, capacity planning, logistics, Just-In-Time, total quality management, and production management. Discussion of how to prepare for APICS certification exams are also included. A term project for graduate students is required.
Prereq: POM503 or equivalent

## POMs76 Production and Inventory Control II

3 HRS An in-depth quantitative and qualitative analysis of various production planning and control problems in manufacturing and service organizations. Topics include forecasting of demand, aggregate production planning and scheduling. The role of management science and computer models in solving these problems is also reflected in the course. A term project for graduate students is required.
Prereq: POM503 or equivalent

## POMs77 Tools for Strategic Quality

 Management 3 Hrs The course consists of lectures, discussions, cases and examples, and presentations by students of a research project related to management by fact of strategic quality management in the workplace.POM590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## POM597/598/599 Independent Study

 I/2/3 HRSAn intensive study of one or more problems under the direction of a University faculty member.
Prereq: department permission
POM679/68o/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
POM697/698/699 Independent Study I/2/3 HRS
An intensive study of one or more problems under the direction of a University faculty member.
Prereq: department permission

## Psychology Courses

## PSYs2o Coping with Problem

 Behavior2 HRS
The application of psychological principles of learning to school (and school-related) problem behaviors. Emphasis is on procedures that can be implemented with minimal cost by classroom teachers, principals and other schoolrelated personnel.
Prereq: One course in psychology

## PSY 528 The Psychology of Stress and

 Relaxation3 HRS
An overview of major stress theories, personal and professional application of relaxation and stress prevention techniques, and exploration of therapeutic and community efforts designed to deal with stress-related problems.
Prereq: one course in psychology
PSY532 Psychology of Adolescence 2 hrs Physical, intellectual, emotional and social development from puberty to adulthood with emphasis on the significance for teachers and others interested in youth.
Prereq: one course in psychology

PSY540 Psychology of Adjustment 2 hrs Issues, concepts, principles and theories in human adjustment.
Prereq: one course in psychology

## PSY 542 /WMST542 Women and Mental

Health
2 HRS
Focus on theory and research concerning women's responses to life stresses, women as clients in psychotherapy, and the role of the female mental health professional.
Prereq: one course in psychology
PSY543 Abnormal Psychology 2 hrs Behavior pathologies of children and adults, including symptom origins and methods of treatment. Not open to students who hold credit in PSY360 Abnormal Psychology.
Prereq: one course in psychology

## PSYsso Dynamics of Human <br> Behavior

2 HRS
The determinants of behavior and personality, with emphasis on the physiological, psychological and cultural bases.
Prereq: one course in psychology
PSY5si Psychology of Death and Dying 2 hrs Study of attitudes toward, theories about, and empirical data concerning human mortality and suicide and its relevance to life adjustment, aging, religion and other areas.
Prereq: PSY101 or PSY102 or equivalent
PSY552 Theories of Personality 2 hrs Major theories of personality including Freud, Jung, Adler, Rank, Sullivan, Kelly and holistic and learning theorists.
Prereq: one course in psychology
PSY56s Industrial Psychology 2 hrs Psychological principles, theories and methodology applied to behavior in industrial settings. Not open to students who have credit in PSY351 Industrial Psychology.
Prereq: one course in psychology
PSY57o Consumer Psychology 2 hrs A survey of psychological principles, theories and methodology relating to consumer behavior.
Prereq: one course in psychology
PSY $590 / 591 / 592$ Special Topics $1 / 2 / 3$ HRS Course content will consist of new topics in psychology taught on an experimental basis, thus changing from one semester to the next. Not more than six hours of special topics may be used on a degree program.

## PSY595 Workshop in the Scientific

Approach to Problem Solving 2 hrs The scientific approach to the solving of problems; the application of psychological principles.
Prereq: one course in psychology

## PSY597/598/599 Individual Reading I/2/3 HRS <br> Supervised reading of psychological literature to provide in-depth understanding of a selected

psychological problem.
Prereq: one course orienting student to the problem area, and department permission

PSY6oo Psychological Statistics I 3 hrs A study of statistical techniques including small-sample theory, analysis of variance and non-parametric statistics.
Prereq: department permission
PSY6oi Psychological Statistics II 3 hrs More complex analysis of variance models plus various correlational procedures.
Prereq: PSY600 and department permission
PSY6os Research Design
3 HRS
Research methods and analysis of data.
Prereq: department permission
PSY6io Clinical Neuropsychology 3 hrs Study of methodology, research and clinical application of clinical neuropsychological principles. Includes demonstration of neuropsychological assessment test instruments.
Prereq: graduate standing and department permission

PSY6i9 Behavioral Assessment 3 hrs A behavioral approach to measuring and analyzing personality using standardized tests and behavioral observation techniques; multiple test administration, scoring and evaluation experience are included. Concurrent registration in PSY641 is required.
Prereq: department permission

## PSY620 Learning

3 HRS
Research methods, experimental findings and theories of learning.
Prereq: department permission

## PSY62i Prepracticum in Behavioral

## Medicine

I HR
Students rehearse behavioral assessment and intervention skills applied to problems associated with medical treatment, illness prevention, and coping with secondary effects of medical conditions and treatment. Concurrent registration in PSY630 is required.
Prereq: department permission

## PSY623 Experimental Analysis of

 Behavior3 HRS
The principles and parameters of respondent and operant conditioning and their application. Lecture and laboratory. Concurrent registration in PSY651 is required.
Prereq: department permission

## PSY62s Behavior Change Methods I:

Applied Behavior Analysis 3 hrs
Introduce theory, research and practical information relating to issues, techniques and implementation of treatments based on applied behavior analysis for psychological problems. Concurrent registration in PSY661 required.
Prereq: PSY619, PSY620 and department permission
PSY626 Motivation and Emotion 3 hrs A review of major findings, theories and recent
research developments in the areas of motivation and emotion.
Prereq: department permission
PSY627 Behavior Change Methods II: Behavior Therapy

3 HRS
Introduces theory, research and practical information relating to issues, techniques and implementation of behavior therapy-based treatments for psychological problems. Concurrent registration in PSY671 required.
Prereq: PSY619, PSY620 and department permission

## PSY628 Behavioral Interventions with <br> Children and Families 3 hrs

Covers empirical, conceptual and practical issues related to the development and implementation of clinical behavioral treatment strategies as applied to behavior problems encountered in children and family systems. Concurrent registration in PSY631 is required.
Prereq: PSY619, PSY620 and department permission
PSY629 Physiological Psychology 3 hrs An examination of physiological processes and their relationships to behavior.
Prereq: department permission

## PSY63o Behavioral Medicine 3 hrs

 Study of the application of behavioral science theory, principles and methods to understanding health and illness and to prevention, diagnosis, treatment, rehabilitation and health care delivery. Concurrent registration in PSY621 is required.Prereq: department permission

## PSY63i Prepracticum in Behavioral

 Interventions with Children and Families I HRDevelopment and implementation of clinical behavioral treatment strategies as applied to children and family systems will be conducted in a field setting. Two hours of field work are required each week. Concurrent registration in PSY628 is required.
Prereq: PSY619, PSY620 and department permission
PSY632 Sensation and Perception 3 hrs A review of research and theory dealing with sensory experience and perception.
Prereq: department permission
PSY635 Cognitive Processes 3 hrs
A review of theoretical and empirical developments in the areas of thinking, problem solving, concept formation, creativity and decision making.
Prereq: department permission
PSY637 Social Psychology 3 HRs
The study of the processes underlying social interaction and behavior in social contexts.
Prereq: department permission
PSY64o Developmental Psychology3 hrs Biological, intellectual, social and emotional changes through the life span. Major concepts and problems related to developmental stages of life.
Prereq: department permission

PSY64i Prepracticum in Behavioral
Assessment
I HR
Methods for measuring and analyzing behavior will be carried out in applied setting. Two hours of fieldwork are required each week. Concurrent registration in PSY619 is required.
Prereq: department permission

## PSY646 Personality: Theory and

 Research3 HRS
Advanced study of concepts and empirical research in personality.
Prereq: department permission

## PSY6si Prepracticum in Experimental

Analysis of Behavior
I HR
Research that involves the experimental analysis of behavior will be conducted two hours each week in laboratory or field setting. Concurrent registration in PSY623 is required.
Prereq: department permission

## PSY66i Prepracticum in Applied

Behavior Analysis
I HR
Single casework using techniques of applied behavior analysis will be carried out under supervision with volunteers interested in changing unwanted behavior or establishing new functional behavior. Concurrent registration in PSY625 is required.
Prereq: PSY619, PSY620 and department permission

## PSY67o Scientific and Professional

## Ethics

2 HRS
Guidelines and commonly shared ethical principles for psychologists are taught through case study, lecture and group discussion. The importance of following ethical guidelines along with consequences for noncompliance are stressed.
Prereq: students must be enrolled in the clinical
behavioral graduate program in psychology

## PSY67i Prepracticum in Behavior

 TherapyI HR Casework will be conducted in a setting that will permit a system analysis and intervention such as a school, institution or family setting. The course requires two hours of fieldwork each week. Concurrent registration in PSY627 is required.
Prereq: PSY619, PSY620 and department permission

## PSY679/680/68I/682 Special Topics

 I/2/3/4 HRSCourse content will consist of new topics in psychology taught on an experimental basis, thus changing from one semester to the next. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## PSY683/684 Field Practicum with

## Seminar

2 HRS EACH
Students will participate in an organized health care setting for at least 250 clock hours. The practicum is to be supervised by a licensed psychologist on a regular, continuous and scheduled basis. Offered on a creditno- credit basis. Prereq: PSY641, PSY651 and PSY661 or
PSY671, and department permission

PSY685 Developing Master's Thesis 2 hrs Guides students through the steps of generating a thesis question or hypothesis, literature review, methodological design, data collection, statistical analysis, discussion and conclusion of a master's thesis.
Prereq: department permission
PSY690/691/692 Thesis I/2/3 HRS Completion of research problem, writing thesis and defense of thesis. Offered on a creditinocredit basis.
Prereq: department permission

## PSY697/698/699 Individual Reading

 I/2/3 HRSSupervised reading of psychological literature to provide in-depth understanding of a selected psychological problem.
Prereq: one course orienting student to the problem area, and department permission

## PSY7oi Organizational Systems Theory in Psychology <br> 3 HRS

Examines social bases of behavior from a psychological systems perspective. Includes coverage of several systems theories - especially those relevant to clinical psychological practice and settings. A combination of theoretical and applied issues will be covered.
Prereq: PSY600

## PSY703 Clinical Organizational

 Management
## 3 HRS

Teaches students to identify the goals specific to mental health agencies and psychological treatment settings. Student will learn to measure goals, analyze consistency of goals, implement strategies to integrate goals between levels and improve performance. Projects will allow students to apply various approaches.
Prereq: PSY637 or PSY701, and department permission

## PSY7os Clinical Ecological

Psychology
3HRS Advanced practical and theoretical understanding of the effects of environmental design on human behavior. Emphasizes the analysis and manipulation of settings as adjuncts to other clinical treatment modalities.
Prereq: department permission
PSY720 Child and Family Therapy 3 hrs Overview of therapy methods used to treat disturbed children and families. Play, cognitive, behavioral, and family therapies will be covered. Students develop and implement an intervention program for children or conduct a therapy group for parents. Concurrent registration in PSY791 is required.
Prereq: PSY751 and department permission
PSY73i Prepracticum in Psychotherapy inr The prepracticum course is a lab course that is to be taken concurrently with the Psychotherapy course (PSY751). It will give students experience practicing short-term group therapy. Master's students will design and conduct a three-session psychoeducational group for stu-
dents on campus.
Prereq: graduate standing in M.S. clinical program and department permission

PSY 743 Psychopathology
3 HRS
A study of behavior disorders with emphasis upon current research methodologies, special problems and theoretical formulations, including controversial issues and social and ethical considerations.
Prereq: department permission

## PSY7so Clinical Psychology 3 hrs

 An overview of the field of clinical psychology, including the history of clinical psychology, professional practice, ethics, legal issues and current critical issues.Prereq: department permission

## PSY75i Psychotherapy

3 HRS
Principles of psychological interviewing, psychotherapy and psychotherapeutic techniques. Concurrent registration in PSY731 is required. Prereq: graduate standing in M.S. clinical program or allied graduate programs (educational psychology, counseling, social work), and department permission

## PSY762 The Wechsler Intelligence Tests <br> 4 HRS

Training and supervised experience in the administration and interpretation of the WISC and WAIS tests, plus a review of the relevant clinical research literature.
Prereq: department permission
PSY763 Individual Testing II 4 hrs
Training and supervised experience in cognitive assessment with Binet scales and introduction to assessment instruments in related areas of infant development, visual-motor perception, auditory perception, academic achievement and adaptive behavior functioning; focus on schoolage children.
Prereq: PSY762 and department permission
PSY77o Personality Evaluation I 4 hrs An introduction to individual clinical tests in the study of personality diagnosis. Includes learning to administer, score and interpret the MMPI and 16 PF. Entails a knowledge of the clinical assessment research literature covering the reliability of each testing method.
Prereq: department permission
PSY77i Projective Techniques 4 hrs Introduction to administration, scoring and interpretation of projective techniques with special emphasis upon the Rorschach and TAT.
Prereq: department permission

## PSY777 Advanced History and Systems of Psychology

This course traces the historical development of modern psychological theories and the philosophy of science. It begins with pre-Socratic philosophy and ends with modern psychological systems.
Prereq: department permission

PSY779/780/78i Special Topics I/2/3 HRS An exploration and study of topics not covered in other program offerings. Student may elect more than once, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## PSY788 Practicum in Clinical

## Рsychology I

3 HRS
Supervised psychological testing and interviewing in a clinical setting. Offered on a credit/ no-credit basis.
Prereq: PSY750, PSY762 and department permission

## PSY789 Practicum in Clinical <br> Psychology II

3 HRS
Supervised psychological testing and counseling in a clinical setting, plus completion of a research project in that setting. Offered on a credittno-credit basis.
Prereq: PSY788 and department permission

## PSY 79 Prepracticum in Child and <br> Family Therapy <br> 2 HRS

This course gives students experience working with children and families in clinical psychological therapeutic situations. Students will develop a three-session parenting group and be responsible for one child therapy case at the psychology clinic. Concurrent registration in PSY720 is required.
Prereq: PSY751 and department permission

## PSY797/798/799 Independent Study 1/2/3 HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## PSY8or Program Evaluation in Clinical Рsychology <br> 3 HRS

Presents methods of clinical supervision and techniques for training clinicians in various assessment and treatment approaches. Course includes instruction on how governmental and social organizational policies and laws affect health care delivery, supervision and training. Course also includes instruction on skills necessary for teaching a college course.
Prereq: PSY600, PSY601, PSY605 and department permission

## PSY8o7 Methods of Teaching, Clinical Supervision and Training in Psychology <br> 2 HRS

Presents methods of clinical supervision and techniques for training clinicians in various assessment and treatment approaches. Course includes instruction on how governmental and social organizational policies and laws impact health care delivery, supervision and training. Course also includes instruction on skills necessary for teaching a college course. Concurrent registration in PSY885 is required.
Prereq: PSY789 or PSY684, PSY883 and department permission

## PSY88i Doctoral Seminar I: Assessment

 and Diagnosis2 HRS
Integrates topics from psychopathology, clinical assessment and behavioral assessment. Compares and contrasts general clinical and behavior assessment, including sign versus sample approaches, ideographic versus standardized assessments, accountability in diagnosis, validity of assessment measures, purposes of diagnosis and cross-cultural issues.
Prereq: department permission Coreq: PSY743 or PSY619

## PSY882 Doctoral Seminar II: Assessment and Treatment <br> 2 HRS

Extends coverage of topics addressed in other courses, including PSY881. The focus is on the analysis of assessment information in order to select, develop, implement and assess the effectiveness of treatments. Treatment selection focuses on matching diverse client characteristics to treatment models.
Prereq: PSY881 and department permission.
Coreq: PSY743 or PSY625

## PSY883 Doctoral Seminar III: Issues in

 Professional Behavior 2 hrs Specific ethical, legal and other professional issues will be explored in depth. Covered topics include treatment efficacy, social validity, crosscultural issues, cost effectiveness, accountability and the implications of taking functional versus structural approaches to treatment. Concurrent registration in PSY670 is required or PSY750 as a prerequisite.Prereq: PSY882 and department permission

## PSY884 Doctoral Seminar IV:

Contrasting Traditional and

## Behavioral Approaches to

Treatment
2 HRS
Provides an in-depth extension of the assessment issues presented in PSY881 and 882. Initiates coverage of treatment issues involving meta-analysis and other outcome research models, empirical validation, individualized and treatment choice models, as well as significant cross-cultural issues.
Prereq: PSY883 and department permission
Coreq: PSY770 or PSY771 or PSY628

## PSY88s Doctoral Seminar V: Models

 of Service Delivery, Training and Supervision2 HRS
Extended coverage of conceptual issues raised in courses in teaching, supervision and training, especially PSY807. Topics include, comparing health care and educational models in clinical psychology, controversies in managed mental health care, policy making in mental health, training, licensing and accreditation issues. Concurrent registration in PSY703 or PSY807 is required.
Prereq: PSY884 and department permission

## PSY886 Doctoral Seminar VI: Applying

## the Core Curriculum to Clinical

 Issues2 HRS
Prepares students for licensing exam issues by examining how various areas of psychology
covered separately in the core curriculum inform clinical treatment. Covers topics such as developmental psychopathology, psychopharmacology, neurological structures and pathology, and perceptual changes. The impact of these areas on mental health treatment delivery is examined.
Prereq: PSY885 and department permission

## PSY887 Doctoral Seminar VII: Internship

 and Professional Issues 2 hrs Exposes students to information about applying for and obtaining internships and employment in clinical psychology. Skills covered will include constructing vitas, writing letters of application, preparing for interviews and developing professional contacts. Discussion will include personal, clinical and intraprofessional issues in the life of the clinical intern and new professional.Prereq: PSY886 and department permission

## PSY888 Doctoral Seminar VIII:

## Assessment and Treatment of

 Diverse Clinical Populations 2 hrs Appropriate assessment and treatment approaches to psychological work with various clinical populations will be discussed. Students will learn to consider the implications of ethnicity, race, gender, sexual orientation, religious group membership and other related factors in developing and applying clinical treatments. Prereq: PSY887 and department permissionPSY890/89I/892 Special Topics I/2/3 hrs An exploration and study of topics not covered in other program offerings. Student may elect more than once, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## PSY895 Developing the Doctoral

Dissertation Proposal 2 hrs Guides students through the steps required to develop and complete the doctoral dissertation: question or hypothesis formulation, research and literature review, methodological design, data collection and analysis, discussion and conclusion.
Prereq: complete first three years of required and elective courses in doctoral program and department permission

## PSY896/897/898/899 DISSERTATION

I/2/4/8 HRS
Completion of research problem, writing thesis and defense of dissertation. Offered on a credit/ no-credit basis.
Prereq: department permission

## Quality Courses

QUAL546 Total Quality

## Management

2 HRS
An introductory course in the theory and practice of total quality management (TQM). The three core values of TQM include customer orientation, high levels of employee involvement across the enterprise and a focus on continually improving processes. Particular emphasis will
be placed on the requirements for successful implementation of TQM in a wide range of organizations.

## QUAL549 Problem Solving for Quality <br> Improvement 2 hrs

This course describes the theories and strategies of quality problem solving. It demonstrates how to use one's cognitive abilities to successfully resolve any concern and thus becomes more productive. Individuals learn how to discover root causes of problems, formulate a corrective action plan, implement a course of action and evaluate the solution.

## QUAL55o Advanced Statistical Process Control <br> 2 HRS

An advanced course in statistical process control. Topics will include special purpose control charts and procedures; analysis of runs, trends and cycles; process and gage capability; and underlying distribution analysis.
Prereq: QUAL320 or equivalent
QUAL55i Design of Experiments 2 hrs A study of the design and analysis of experiments to improve product quality. Topics include fundamental concepts applying to the design, conduct and analysis of factorial, as well as reporting results and formulating recommendations for improvements.

## QUAL552 Quality Planning 2 hrs

 Procedures utilized to organize and implement the quality function, including planning, budgeting information and test procedures, customer complaints and quality function deployment.
## QUAL553 Geometric and Surface

Texture Tolerancing 2 hrs A study of tolerancing systems to include geometric dimensioning and tolerancing, and surface texture specifications. The primary objective of this course is to demonstrate the application of these systems to discrete parts.

## QUAL554 Reliability, Maintainability and Product Safety 2 hrs

 A study of the long-term performance of products concerned with failure and the ability to bring the products back into use; and product safety improvement and responsibility of manufacturers. Extensive use will be made of commercially available statistical software to analyze all course topics.
## QUAL555 Quality Auditing 2 HRS Determination of the existence and effectiveness

 of quality systems. Topics include: purpose, objectives, preparation and types of audits; and gathering and dissemination of quality audit information.QUALs56 Human Aspects of Continuous Improvement 2 HRS Employment of the human resource to initiate and maintain continuous improvement in organizations. Theory and examples of best practices including teamwork are emphasized.

## QUALs57 Measuring Customer

Satisfaction
2 HRS
This course includes information on how to determine customer expectations, how to measure and monitor customer satisfaction, and how to create quantitative indices to interpret customer data. Included in the course are various tools for gathering customer data including focus groups, questionnaires, interviews and on-site visits.

QUAL558/EM558 Lean Production 2 hrs Study of lean practices across economic sectors. Class will focus on lean systems whose functions include elimination of waste, reducing costs, shortening cycle times, quality improvement, optimization of socio-technical systems and the process of continuous improvement.

## QUAL559 Cost of Quality 2 hrs

 Cost of Quality is a tool for facilitating quality program and quality improvement activities. It represents the reduced cost in the absence of substandard service, product failures and manufacturing defects. This course covers prevention costs, appraisal costs and internal and external costs.QUAL $590 / 591 / 592$ Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## QUAL597/598/599 Independent Study I/2/3 HRS

Opportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "Independent Study" and "Research Proposal Format" guideline sheets are available from the department.
Prereq: department permission

## QUAL647 Research Methods 2 hrs

This course prepares students for conducting development projects and theses, and for objectively investigating problems in industry. It is a study of basic and applied research processes employing qualitative and quantitative methods. Students will critique research articles and progress toward developing a research proposal.

## QUAL6si Advanced Design of

Experiments
2 HRS Advanced design and analysis of experiments to improve product or process quality. There is a strong emphasis on computer methods, modeling techniques and various response optimization methods. Extensive use will be made of commercially available statistical software to analyze all course topics.
Prereq: QUAL551

QUAL652 Experimental Data
Analysis
2 HRS This course includes modeling of large field (happenstance) data sets using: logistic regression; time series analysis; model validation; contingency tables; canonical correlation; discriminant analysis; collinear data analysis; cluster analysis; and nonlinear regression.
Prereq: QUAL651
QUAL679/680/68I Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
QUAL684 Workshop
3 HRS
Students will be provided practical and theoretical study in a selected topic area. Offered on a credit/no-credit basis.
Prereq: department permission
QUAL689 Industrial Internship 2 hrs A field study of industrial theory and practice through internship experiences with cooperating industries. Designed for students desiring experiences beyond those obtained in their previous or present employment. Offered on a credit/no-credit basis.

QUAL690/69i/692 Development Project/ Thesis I/2/3 HRS Development project: a theory application project conducted under the supervision of an adviser and departmental graduate committee.
Prereq: department permission and 12 hours in one's graduate concentration

## QUAL697/698/699 Independent Study 1/2/3 HRS

Opportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "Independent Study" and "Research Proposal Format" guideline sheets are available from the department.
Prereq: department permission

## Reading Courses

## RDNGsoo Professional Educator

Development Program $1 / 2 / 3$ hrs For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

## RDNGso6 Storytelling

2 HRS
Applying techniques storytellers use to research, prepare, learn and master a story, participants will tell a variety of different types of stories, using an array of presentation formats. Students will also prepare a collection of storytelling/ language arts activities appropriate for various grade levels.

## RDNGsi4 Literature for Young

Adults 2 HRS Young-adult literature (grades 7-12) will be surveyed. Students will consider teaching approaches that integrate young-adult literature into the secondary curriculum, and processes for choosing appropriate literature. Current theory and research regarding the psychological, sociological and legal issues pertaining to the use of young-adult literature will be discussed.

## RDNGsi8 Developmental Reading

- Elementary 2 hrs

Objectives, approaches, materials and techniques for reading in the elementary school classroom. Factors influencing development, fundamental skills, and assessing and providing for individual strengths and needs. Not open to reading majors.

## RDNGs3o Developmental Reading

- Secondary

2 HRS
Curricular objectives and their implementation through recommended activities, methods and materials; functional programs for disabled readers.

## RDNG53i Word Study for the Reading <br> Teacher <br> 3 HRS

Using language theory as a basis, students will explore the various aspects of word study: phonemic awareness, phonics, vocabulary, dictionary skills and spelling. Using literature and other texts, they will develop techniques/strategies for teaching word study in grades K-12.

## RDNGsso Biog, Trade Books, and

Writing Across the K-í Science
and Mathematics Curriculum 3 hrs The course promotes interest and achievement in the content areas by including trade books and biographies into K-12 science and mathematics instruction. The course promotes the benefits of writing in nontraditional forms.

## RDNG554 Reading Problems of

Learners with Special Needs 2 hrs Methods, materials and assessment techniques found effective in teaching reading to learners with special needs; culturally different, mainstreamed, reluctant and gifted learners.

## RDNG58o Reading-Writing Connection: K-6 <br> 2 HRS

This course is designed to provide teachers opportunities to expand their knowledge of reading instruction to a more integrated approach which interfaces reading, writing and subject areas.

## RDNG 583 Promoting Literacy with

Computer Technology 2 hrs Teachers explore research on the use of computers to develop student literacy, investigate curricular implications for integrating computers with literacy instruction and examine management and evaluation procedures in the computer environment.

## RDNG586 A Writer's Camp in Action: A <br> Communty of Leaders 3 hrs <br> This course provides teachers an opportunity

to explore research on the reading/writing process, to investigate ways to promote growth in students' language and to experience a writers' workshop while working with elementary students in a writers' camp. The writers' camp is incorporated into the course.

## RDNG 58 Fostering Literacy: A

## Holistic Approach

2 HRS
This course is designed to explore theoretical foundations of holistic language instruction, to investigate curricula implications for holistic literacy instruction, and to evaluate formal/informal assessment procedures in holistic literacy programs.

RDNG590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. Students may elect this course more than once, provided different topics are covered.
Prereq: department permission

## RDNG593 Microcomputer Applications in Reading Instruction 2 hrs

Participants will evaluate software for reading/ language arts, including programs for drill and practice, tutorials, simulations, diagnosis and prescription, word processing and management. Suggestions for developing units about computers in society will be included.

## RDNG597/598/599 Independent Study

 I/2/3 HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## RDNG630 Literacy Instruction in a Multilingual Society

 3 HRS Exploring research and classroom based literature on second language reading and language instruction, students will develop knowledge about educational policies and instructional approaches which foster literacy (reading, writing, speaking, listening, viewing and visually representing) for English language learners.
## RDNG65s The Integrated Literacy <br> Curriculum

3 HRS
This course provides teachers an opportunity to learn how to integrate speaking, listening, reading, viewing and visual representing with content area instruction using children's and young adults' literature.

## RDNG656 Language Development,

Literacy and the Young Child 3 hrs A concentration on the developmental aspects of language learning and its relationship to emergent reading. Involves theoretical and research knowledge pertinent to child growth and development.

## RDNG657 Comprehension and the

 Content Areas3 HRS
Through a survey of comprehension theories which impact literacy instruction, students will
develop reading techniques and strategies that support student learning in the content areas.

## RDNG658 Reading and Writing and the Inquiry Process <br> 3 HRS

This course provides teachers an opportunity to: (1) explore research on the relationship between the reading and writing processes and (2) determine ways to use the inquiry process with reading and writing across the content areas. Additionally, the course examines classroom management and evaluation procedures.

## RDNG664 The Nature of Common Reading Problems <br> 2 HRS

Problems of underachievement: weaknesses and deficiencies in attitudes, comprehension, work recognition and facility and flexibility in silent and oral reading, physical, psychological, environmental and educational factors. Not open to reading majors.

RDNG678 Literacy Assessment
3 HRS
This course will survey formal and informal procedures used to identify, evaluate and remediate reading disabilities and to plan instruction in a classroom or clinical setting. Students will examine current group and individual reading assessments and prepare case studies and recommendations for teachers and families.
Prereq: RDNG655, RDNG656, RDNG657 and RDNG658

RDNG679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. Subject matter will change from semester to semester. Students may elect this course more than once, provided different topics are covered.

## RDNG682/683/684/685 Wогкsнор in

 Reading I/2/3/4 HRS Please examine the current time schedule for specific workshop topics. Among those offered in the past: Providing for Individual Differences in Reading.
## RDNG686 Practicum: Designing Literacy Intervention Programs 3 hrs

 This course provides models of intervention programs for struggling readers at the individual and school-wide level. Characteristics of successful intervention programs and grant guidelines will be studied. A clinical practicum targeting struggling readers is included.Prereq: RDNG655, RDNG656, RDNG657, RDNG658 and RDNG685

## RDNG687/688 Practicum in Reading

 2/3 HRSOpportunities to work with community children demonstrating reading difficulties. Under supervision, students will engage in the diagnosis, analysis and treatment of various reading disabilities; maintaining a professional relationship with their clients, their clients' families and associated schools or agencies. Ongoing study of current procedures in the analysis of reading performance critical to systematic diagnosis and prescription.
Prereq: RDNG678

RDNG690/691/692 Thesis
Prereq: department permission
RDNG693/696 Seminar in Reading i/4 hrs A research-oriented course for graduate majors.
Prereq: department permission

## RDNG694 Seminar: Current Issues in <br> Reading <br> 2 HRS

The seminar is a culminating course in the graduate reading concentration. Current trends in reading research, critical examination of selected research studies and investigations, selfevaluations of professional needs, and interests in reading are included.
Prereq: RDNG678

## RDNG695 Seminar: The Reading

Professional
3 HRS
This course is designed to be the culminating experience for students seeking a master's in reading. Students will examine the processes of staff development, grant writing, community outreach and action researcher from the perspective of the reading professional. They will develop a final project based on their needs and interests.
Prereq: EDPS677 or EDPS687; Prereq/Coreq: RDNG686

## RDNG697/698/699 Independent Study I $/ 2 / 3$ HRS

An intensive study of a problem or group of problems. The completed study must give evidence of the student's ability to select a problem and set it up and pursue it to satisfactory completion. Must be done with approval of a full-time member of the staff.

## Supply Chain Management Courses

SCM6ii Supply Chain Management 3 hrs Study of the components of the entire supply chain. Emphasis on collaboration and planning related to major functional areas required to organize the flow of products from inception through delivery to satisfy final customer needs. Information and communication technology as an enabler of supply chain management strategies is also discussed.
Prereq: MKTG510 and POM503

## SCM6I4 Information Technology for

Supply Chain Management 3 hrs The purpose of this course is to discuss knowledge and skills in information technology for supply chain management. Major topics include electronic data interchange (EDI), enterprise resource planning (ERP), B2B e-commerce, network and telecommunication infrastructure for SCM, and data warehouse applications in SCM. Hands-on exercises in an ERP system may be included in this course.

SCM6i8 Logistics in the Supply Chain 3 Hrs
Analysis of the operational challenges involved in developing and implementing a firm's lo-
gistics strategy. Emphasis will be placed on logistics as a value-adding process and the integration of logistics with other business processes. Use of analytical tools such as SAP for making decisions regarding site selection, production, inventory, and transportation.
Prereq: MKTG510

## SCM622 Customer Relationship

Management
3 HRS
This course provides the fundamental concepts in customer relationship management. Topics include understanding the total customer experience, CRM planning, e-customer service, best practices, call center management, data warehousing, ERP, Internet CRM integration, customer value and retention, interrelationship selling and partner relationship management.
Prereq: MKTG510

## SCM624 Operations Planning and

Scheduling in Supply Chain 3 hrs This course focuses on the integration of operations planning and scheduling for multiple organizations in a supply chain. Topics include: production strategy (making-to-stock, assem-ble-to-order, etc.), demand management master scheduling, material and resource requirements planning, e-procurement, capacity management, inventory management and shop floor control. Hands-on computer exercises (using ERP) are included.
Prereq: SCM611

## SCM628 Purchasing/Outsourcing \&

Quality
3 HRS
Provides students with an understanding of operational and strategic issues related to purchasing, outsourcing and quality in the supply chain. Emphasis is placed on how purchasing strategy enhances customer value through efficient acquisition of raw materials and supplies. Buyer-supplier relationships and quality control/ improvement tools and techniques are discussed. Prereq: MKTG510 and POM503

## Sports Management

## SMGTsio Administration of

 Athletics2 HRS
Problems related to interscholastic and intercollegiate athletic programs; for administrators, supervisors, coaches and others having a part in the control of athletics.

## SMGT56i Supervision of Physical

 Education2 HRS
Problems, relationships and procedures in the supervision of physical education programs.

## SMGT562 Facility Planning and

Development
2 HRS
Terminology, standards for planning, construction, use and maintenance of facilities in health, physical education, recreation and athletics.

## SMGT588 Administrative Problems in Physical Education 2 hrs

The case study approach to the understanding
of problems in physical education and athletics; planning, organizing, developing, staffing, coordinating and budgeting programs.
Prereq: major/minor
SMGT590/59I/592 Special Topics I/2/3 hrs Experimental course(s) designed to investigate specific topics of concern in the specialization areas of study in sports management. Not more than six hours of special topics may be used on a degree program.

## SMGT597/598/599 Independent Study 1/2/3 HRS

An intensive study of a problem under the direction of a University faculty member.
Prereq: department permission
SMGT679/680/68i Special Topics i/2/3 hrs Experimental course(s) designed to investigate specific topics of concern in the specialization areas of study in sports management. Not more than six hours of special topics may be used on a degree program.

## SMGT697/698/699 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem under the direction of a University faculty member.
Prereq: department permission

## Sociology Courses

Graduate students not majoring in sociology, but desiring a cognate in the department may elect courses SOCL500-509 for cognate credit, in consultation with their advisers.
SOCLsoo Man in Society
2 HRS
Basic concepts, theory and analysis of social structures, social process and social disorganization. Not open to students with credit in SOCL105.

## SOCL/ANTHyoz Raclal and Cultural <br> Minorities 3 hrs

Racial and cultural minorities in the modern world, with particular reference to African Americans and to European and Asian immigrants in the United States; racial myths, doctrines and movements; conflict and accommodation of majority and minority peoples; proposed solutions of ethnic problems. Not open to students with credit in ANTH214/SOCL214.

SOCL503 The Family as an Institution 3 hrs The course highlights changes in marriage, family composition, social relations and roles, as well as the mutual interdependence among these and other institutions of society. It begins with the traditional pre-industrial or pre-urban family, showing how and why the family began changing at a rapid rate, and exploring the problems of transitional phases. The present family with its middle-class ideals is then examined closely. Finally, several trends in modern families are identified and some tentative predictions about future families and alternate family forms are made. Not open to students with credit in SOCL450.

SOCLso4 Demographic Analysis 3 hrs The analysis of population dynamics, with special emphasis on applied research, using computer simulation. Focus on the social, political and economic implications of the relationships among human numbers, population composition and resources.

SOCLso8 Social Psychology 2 hrs An introductory study of the order and regularity underlying processes of human interaction, motives and attitudes, social norms and roles, the socialization process, personality and group membership; the effect of group membership upon individual behavior. Not open to students with credit in SOCL308/PSY309.

## SOCL/ANTHsog Personality and Social <br> Systems 2 hrs

 The cross-cultural study of personality and sociocultural systems. Attention is paid to modal personality types as these relate to group structure, socialization and social structure. Individual differences are not studied. Not open to students with credit in ANTH/SOCL309.SOCLsiz Social Deviance 3 hrs The development of deviant self-conceptions; social psychological processes of group alienation and individual estrangement. Deviant behavior patterns and the development of deviant careers; theories of deviance.

## SOCL/WMSTsis Sociology of

## Women

3 HRS
The course examines the changing role of women in American institutions, especially in the world of work and in the family. Materials on minority and working-class women will be included.

SOCLsfo Domestic Violence and Sexual Assault

3 HRS A comprehensive study of the physical, sexual and emotional abuse that disproportionately affects women. Topics include theories of violence and intervention strategies.

SOCL590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## SOCL597/598/599 Independent Study $1 / 2 / 3$ HRS

Intensive study of a sociological problem or theory, supervised by a member of the sociology faculty.
Prereq: department permission
SOCL630 Advanced Social Statistics 3 hrs This course will focus considerable attention on nonparametric statistics and will examine the problem of controlling for variables in a statistical sense. Certain classical techniques of multivariate analysis will be included.

SOCL636 Qualitative Analysis 3 hrs An examination of the methods and techniques of qualitative analysis in sociology. Research will be conducted by class members and reviewed in seminar presentations.

## SOCL64o Advanced Sociological

Theory
3 HRS An analysis of contemporary theoretical schools of thought in sociology.

## SOCL64i Theory Construction and <br> Verification <br> 3 HRS

Analysis of contemporary strategies in theory, construction and verification. Problems of validity and reliability will be emphasized.

## SOCL642 Social Stratification Theory and Research <br> 3 HRS

A comprehensive study of the theories of social stratification, an examination of the problems encountered in attempts at empirical verification of these theories, and an exploration of current research relating to social stratification.

## SOCL643 Organizations and

## Networks

3 HRS How organizations are created and changed as they struggle to achieve their goals. Theoretical readings and case studies on organizational and inter-organizational dynamics provide theoretical and practical knowledge for students.

## SOCL646 Research in Family

## Interaction 3 hrs

Review of research on family interaction, with particular emphasis on experimental observational studies; power structure role differentiation, communication patterns and coalition formation.

## SOCL647 Contemporary Community

Structure
3 HRS
Theoretical perspectives in the analysis of urban communities, including urban change, the development of stratification patterns and power structures, and the role of various urban institutions.

## SOCL656 Human Ecology and

## Community Development 3 hrs

An analysis of the forms and development of the urban community; spatial and temporal patterns, organization of urban functions, ru-ral-urban relationships and the current metropolitan trend in the United States.

SOCL662 Supervised Field Experience 2 hrs Supervised internship in a community agency such as a correctional institution, enforcement agency, human relations committee or city planning agency, or in a project for the rehabilitation of persons in culturally or economically deprived segments of the community. Students are ordinarily placed for two consecutive semesters.
Prereq: department permission

## SOCL677 Advanced Methods in

 Sociological Research3 HRS Relationship of theory and research is stressed; consideration of the research process as a deci-sion-making situation both on the general level of research design and the specific level of special techniques; the process and logic of data analysis.

## SOCL678 Methods in Social Program Evaluation <br> 3 HRS

The course is designed to train students in strategies, techniques and issues in social program evaluation. It is concerned both with the design of program evaluations and with their implementation in various social settings.

SOCL679/680/68I Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

SOCL688 Cooperative Education 3 hrs Practical experience in business, industrial or governmental settings that provide job skills.
Prereq: degree admission; department permission
SOCL690/691/692 Thesis I/2/3 HRS Completion of research and/or analytical problem, writing of thesis and committee approval of same. Offered on a creditno-credit basis.
Prereq: department permission
SOCL694 Seminar in Sociology 2 hrs The intensive exploration of theoretical and methodological issues in a selected area of sociology. The topic will be announced in the class schedule issued prior to registration.

## SOCL695 Program Evaluation Skills

Development Seminar
3 HRS
This course offers experience applying the strategies and techniques of evaluation research to specific contexts. Students are apprenticed to University institutes to assist project directors in conducting specific researches.
Prereq: SOCL678

## SOCL697/698/699 Independent Study

 I/2/3 HRSIntensive study of a sociological problem or theory, supervised by a member of the sociology faculty.
Prereq: department permission

## Social Foundations Courses

SOFDsoo Professional Educator Development Program $1 / 2 / 3$ hrs For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

SOFD sizo $^{\text {Social Foundations of }}$
Education: An Introduction 2 hrs This course illustrates the uses and applications of the different disciplines in social foundations (e.g., anthropology of education, sociology of education and comparative education) as frameworks for researching problems confronting schools as major social institutions.

## SOFD535 Multicultural and

International Education 2 hrs
Designed to provide multicultural and international perspectives to the continuing debates on reform of education in a democratic society. Emphasis is placed on what multicultural education should be and its place in the curriculum.

## SOFD $540 / 541 / 542$ Field Studies in

Education
I/2/3 HRS
On-site investigations of selected aspects of education and society. Field-based research may be done in the United States or other countries. Students may elect this course several times, provided different topics are covered. Not more than four hours may be used on a degree program. Prereq: a graduate course in SOFD and consent of the instructor

## SOFD $5 \varsigma 0$ Philosophy, Ethics and

Teaching 2 hrs Application of philosophical methods of analysis to specific ethical problems facing teachers in preschool, elementary and secondary schools. Students will investigate various ethical frameworks and critically examine, by means of case studies, controversial educational issues.

SOFD $\varsigma 60$ Anthropology of Education 2 hrs Educational patterns and policies are examined from a cross-cultural perspective. Concepts and methods of cultural anthropology are used to analyze problems of quality and equity in education.
Prereq: SOFD530 for majors; course in sociology or anthropology for nonmajors

## SOFD570 Women and Pedagogy: Life <br> Histories <br> 3 HRS

An interpretive analysis of the life histories of major women teacher educators will assess how conceptions of their moral and political identity translated into their pedagogy and purpose for education. Included is a focus on life history as a research method.

## SOFD572 The History of American

Schooling and Literacy 3 hrs Drawing on a variety of sources from historical narrative and historiography, the course provides a context for interpreting the conflicting aims of literacy and education in the United States.

## SOFD573 Black Experience and American Education

2 HRS The role of African Americans in the development of the United States. The course is designed to help teachers to understand the cultural, economic and political contributions of African Americans and to develop materials
to be used in their courses at both elementary and secondary schools.

SOFD 580 Sociology of Education 2 hrs This course introduces various sociological perspectives to analyze the relation of schooling to the social construction of race, class, gender and sexuality in a socially stratified society. Special attention is placed on teachers' responsibilities and skills as classroom practitioners, child advocates and community leaders in a culturally diverse democratic society.

## SOFD 58 l /WMST58i Gender and

Education
3 HRS
This course examines the social construction of masculinity and femininity and its impact on the lives of teachers and students in schools.

SOFD $590 / 591 / 592$ Special Topics i/2/3 hrs A study of selected issues in social foundations of education. Topics may vary from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.

## SOFD $597 / 598 / 599$ Independent Study

 I/2/3 HRSAn intensive study of a problem or theory, supervised by a faculty member in social foundations of education.
Prereq: graduate SOFD course and instructor permission

## SOFD627 Trends and Challenges in

International Education 2 hrs The materials covered in the course are intended to provide an international perspective to the continuing debate on reforms in education and on the issue of what multicultural education should be and its place in the curriculum. The course provides an overview of (a) comparisons of standardized achievements in education between the schools in the United States and selected industrial countries, and (b) the nature and implications of the involvement of the United States in education overseas programs through the foreign aid program and through an increasing number of U.S. teachers working in overseas schools.

## SOFD654 Multicultural Teaching and Learning <br> 3 HRS

This course provides a critical framework in which to examine and develop skills and understandings necessary for teaching in a multicultural world.

## SOFD66o/WMST66o Teaching for

Social and Ecological Justice 3 hrs An advanced course creating bridges between critical and social theories and pedagogical practices leading to democratic, socially and ecologically just communities. The theoretical foundations of multicultural education, critical and feminist pedagogies, eco-justice pedagogy, and service learning are examined. Some preparation in critical social theory required.
Prereq: a graduate-level course in SOFD or women's studies

SOFD679/680/68i Special Topics i/2/3 hrs A study of selected issues in social foundations of education. Topics may vary from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.

## SOFD682/683/684/685 Wоrкshop in

Social Foundations $\quad 1 / 2 / 3 / 4$ hrs Focuses on providing practical assistance for teachers and school administrators in developing a variety of teaching resources and methods on such themes as racism and education, human relations and multicultural education. Site-based decision-making, student-faculty planning and cooperative learning are illustrated and used extensively in workshops. May be elected more than once. Not more than four hours may be used on a degree program.

SOFD690/691/692 Thesis I/2/3 HRS Significant research or critical study designed and completed by the student under the direction of a thesis director and thesis committee. Not more than two hours of thesis credit may be used on a degree program.
Prereq: department permission; 24 hours in M.A. program and permission of adviser

SOFD694/696 Advanced Seminar 2 hrs This seminar is required of all social foundations master's students to help identify appropriate topics for theses and culminating projects. Seminar discussion will focus on the development and evaluation of research proposals designed by students. Offered on a creditno-credit basis.

## SOFD697/698/699 Independent Study I/2/3 HRS

An intensive study of a problem or theory, supervised by a faculty member in social foundations of education.

## Special Education Courses

## SPGNsoo Professional Educator <br> Development Program $\quad 1 / 2 / 3$ hrs

 For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.
## SPGNsio Students with Disabilities in the

General Education Classroom 3 hrs A study of the nature and needs of students with disabilities being educated in the general education classroom. Review of philosophical and legal bases of inclusion and discussion of issues and concerns for students with disabilities who are educated in inclusive settings are emphasized.

## SPGNsii Instruction and Management of Students with Disabilities in the

 General Education Classroom 3 hrs Learning, social/emotional and behavioral aspects of students with disabilities and students at-risk who are served in general educationsettings. Learning styles, teaching strategies and techniques, as well as curricular modifications and classroom management techniques are presented.
Prereq: SPGN510

## SPGNsis Computer Applications in

Special Education 3 hrs
Development of knowledge of hardware and software adaptation needs for special education populations and presentation of information about availability of each. Focuses on effective utilization of microcomputers with special populations.
Prereq: department permission

## SPGNs2s Behavior Management and the

Development of Social Comptence in Students with Special Needs 2 hrs An in-depth study of behavior management and social competence development in PreK-12 students with disabilities. Students will begin to develop their own philosophies and professional beliefs relative to behavior management and social competence based on reviews of theoretical perspectives, legal mandates, curriculum, instructional delivery and research-based effective practices. Course available only to students enrolled in M.A. Learning Disabilities or Special Education programs.
Prereq: SPGN510

## SPGNs8s Practicum: Severe Cognitive <br> Impairment <br> 4 HRS

This course is designed to meet state requirements for teachers preparing to teach in programs for students with severe cognitive impairment. Completion of a 180 -hour supervised assignment focusing on planning, teaching and evaluating instruction with students, individually or in group settings. Offered on a credit/no-credit basis. Prereq: an endorsement in one area of special education

## SPGN586 Practicum in Special

Education
4 HRS
Supervised practicum with students in local schools and institutions in the disability area of professional preparation. Offered on a credithocredit basis.
Prereq: teacher certification and endorsement in the same area of special education

SPGN590/591/592 Special Topics i/2/3 hrs Experimental courses designed to investigate current issues and specific topics of concern related to disabilities. Not more than six hours of special topic may be used on a degree program.

## SPGN597/598/599 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## SPGN6os Transitional Planning in <br> Special Education

2 HRS
This course addresses transitional planning for students with disabilities. Life planning, commu-
nity-based education, work-study and transition from school to adult living and working.
Prereq: SPGN510

## SPGN6is Social Psychology of

## Disability: Family, School and

 Society3 HRS
This course addresses the principles of social psychology of persons with disabilities, infancy through adulthood and the influence of the reciprocal interaction of the family, school and society.
Prereq: department permission
SPGN6i9 Administration and Supervision of Special Education 2 hrs Organization or improvement of programs for students with disabilities; includes philosophical, legal and practical aspects of organizing and administering special education programs in public schools.
Prereq: an endorsement in special education or department permission

## SPGN62i Law and Public Policy for

Individuals with Disabilities 3 hrs An extensive study of state and federal legislation as it applies to persons with disabilities. Teacher responsibility and liability under law. The effect of case law and judicial decisions on future legislation.
Prereq: SPGN510 or equivalent and graduate standing

## SPGN63o Integrated Curriculum

 and Educational Programming for Mathematics and Motor Development3 HRS
This course focuses on integrated curriculum (PreK-12) in special education across the areas of mathematics and motor development. Students will gain decision-making experiences in the selection of effective teaching/learning approaches, and explore the selection, uses an evaluation of a broad base of instructional methods and strategies addressing the needs of students with disabilities in a full continuum of special education settings.
Prereq: SPLI678 and endorsement in one area of special education or department permission

## SPGN632 Collaborative Consultation

in Special Education
2 HRS
Theories focusing on areas including groupprocess skills, problem-solving skills and relevant consultation models will be introduced and discussed. Particular attention will be given to the development of skills supporting collaborative consultation as an interactive process, and ways of working effectively with general education and related fields.
Prereq: an endorsement in one area of special education

## SPGN642 Curriculum Design <br> and Construction in Special Education

3 HRS
This course focuses on essential foundations of curriculum design and construction in special education. Theoretical and practical curricular models will be analyzed and discussed. Particu-
lar emphasis will be placed on curricular frameworks, which support the education of students with disabilities in self-contained, resource room and inclusive settings.

## SPGN643 Innovative Curriculum Strategies for Special Education Settings <br> 3 HRS

A study of exemplary curricula, and the elements necessary to design and create curriculum supportive of students with disabilities in inclusive, resource room and self-contained settings. Students will utilize curricular frameworks and strategies, designated as best practices, in the design, creation and evaluation of specific curricular appropriate to their professional area.
Prereq: SPGN642

## SPGN652 Technology Infusion to

 Enhance Curriculum in Special Education 3 Hrs This course focuses on the application of technologies (assistive and general) to support and enhance active learning for students with disabilities, PreK-12. Frameworks and strategies supporting the infusion of technology within classroom curriculum will be explored. Curriculum design, with technology utilized as a productive tool for teaching and individual student learning, will be emphasized.
## SPGN653 New Directions in Assistive

 Technology3 HRS A study of new and emerging technologies which support the changing needs of students with disabilities, PreK-12. Specifically, assistive technology applications, home/school modifications, assistive technology components for IEP's and IFSP's, and state-of-the-art hardware and software will be addressed. Course topics will change and students may elect this course three times for credit.

## SPGN66i Advanced Assessment and

 Decision-Making3 HRS
Examination of database procedures for reviewing and making educational decisions regarding special education eligibility, program placement and goals. Laws, special education definitions, behavioral and cognitive theory, administration interpretation of assessment techniques and materials, writing of educational prescriptions and survey of service-delivery systems.

SPGN679/680/68i Special Topicsi/2/3 hrs Experimental courses designed to investigate specific topics of concern in special education. Not more than six hours of special topic may be used on a degree program.
Prereq: department permission

## SPGN687 Internship

2 HRS
A supervised experience in an area of special education. Internship experiences are contracted with a department faculty member.
Prereq: department permission

SPGN689 Supervised Internship in
Special Education 6 hrs
Supervised internship with pupils in local schools and institutions in the disability area of professional preparation. Offered on a credit/nocredit basis.
Prereq: department permission
SPGN690/69I/692 MASTER'S Thesis i/2/3 HRS A research-based study conducted under the direction of a departmental faculty member and committee. Course offered on a credit/nocredit basis
Prereq: department permission

## SPGN694 Seminar: Interdisciplinary

 Special Education4 HRS
An intensive study of selected problems in special education. Offered on a credit/no-credit basis. Open only to majors in special education.

## SPGN697/698/699 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of problems, under the direction of a University faculty member. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPGN7I9 Advanced Seminar: Special

Education Administration 2 hrs A structured colloquium covering current special education administrative practices, issues, procedures and tasks specific to special education supervisors and directors.
Prereq: SPGN619

## SPGN789 Specialist Internship in

## Special Education

4 HRS
Supervised field placement to ensure that students have actual experiences with all phases of special education's administrative responsibilities or curriculum specialist's responsibilities. Offered on a credit/no-credit basis.
Prereq: department permission

## SPGN790/79I/792 Specialist's Thesis I/2/3 HRS

A research-based study conducted under the direction of a departmental faculty member and committee.
Prereq: department permission

## Cognitive Impairment Courses

## SPCIsoo Professional Educator

Development Program I/2/3 hrs For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

## SPCI557 Cognitive Impairment: Nature, Needs and Issues <br> 3 HRS

 Investigation of the nature and causes of mental retardation. Addresses preventative aspects as well as the inherent social, legal and moral issues; current practices and emerging trends in school and society. Not open to students who have credit in SPCI350.Prereq: SPGN251 or equivalent

SPCI590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPCI597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission
SPCI679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPCI683 Workshop

2 HRS
Students will be provided practical and theoretical study in a selected topic area. Offered on a credit/no-credit basis.
Prereq: department permission

## SPCI694 Seminar: Cognitive

Impairment
2 HRS
A review and discussion of contemporary problems and issues related to the field. Recent developments and practices are critically analyzed. Course includes resource speakers and assigned topics for individual students/groups. Course offered on a credit/no-credit basis
Prereq: eight graduate hours in special education

## SPCI697/698/699 Independent Study

 I $/ 2 / 3$ HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Emotional Impairment Courses

## SPEIjoo Professional Educator

Development Program I/2/3 hrs
For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

## SPEIsio Advanced Theory of Emotional Impairment <br> 3 HRS

Focus will be on advanced behavior concepts, cognitive psychology, biophysical research, ego psychology and the psychoeducational approach. Students will acquire knowledge of current research and the contributions of these theories of maladjustment to understanding personality deviations.
Prereq: department permission

SPEI590/59I/592 Special Topics $1 / 2 / 3$ Hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPEI597/598/599 Independent Study

 1/2/3 HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission
SPEI63o Introduction to Autism 2 hrs This course introduces the student to the definition of the syndrome of autism and the various theories with regard to cause and treatment. The student also is given an overview of the unique problems encountered in intervention strategies and techniques.
Prereq: graduate standing and department permission
SPEI679/680/68I Special Topics i/2/3 Hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPEI694 Seminar: Students with

Emotional Impairment 2 hrs Course consists of a review and discussion of contemporary issues in the education of students with emotional impairment. Students elect areas for more intensive exploration through literature review or data collection. Class presentation is a course requirement. Course offered on a credit/ no-credit basis
Prereq: department permission

## SPEI697/698/699 Independent Study

 1/2/3 HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Hearing Impairment Courses

## SPHIsoo Professional Educator

Development Program I/2/3 hrs For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

SPHI590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPHI597/598/599 Independent Study $1 / 2 / 3$ HRS

An intensive study of a problem or group of
problems under the direction of a University
faculty member.
Prereq: department permission
SPHI679/680/68i Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission
SPHI689 Internship 4 HRS
A directed field experience in a department-approved agency or institution under the direction of certified personnel. Arrangements must be approved by adviser prior to registration.
Prereq: department permission

## SPHI697/698/699 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Learning-Disabled Courses

## SPLIjoo Professional Educator

Development Program $\quad 1 / 2 / 3$ hrs
For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

SPLI590/591/592 Special Topics I/2/3 HRS An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPLI597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## SPLI672 Integrated Curriculum:

Linguistics and Language Arts 3 hrs This course focuses on the development of effective decision-making strategies in the selection of appropriate teaching/learning approaches in linguistics and language arts. Students will explore selection, uses and evaluation of a broad base of instructional methods and strategies addressing the needs of $\mathrm{K}-12$ students with disabilities.
Prereq: SPLI678

## SPLI673 Language: AcQuisition,

## Disorders, Evaluation

3 HRS
This course presents information concerning normal language acquisition, descriptions of disorders of language development in students with disabilities, formal and informal assessment techniques used by speech/language pathologists, classroom evaluation techniques, guidelines for referral for appropriate services and intervention activities for the classroom.
Prereq: SPLI468 or equivalent

## SPLI678 Assessment and Advanced

 Diagnostic Prescriptive Programming for Students with Learning Disabilities 4 HRSThis course will emphasize data based procedures and applications of human development, learning, behavioral, cognitive and dynamic theories to assessment in special education. Appropriate decision-making strategies relative to educational and instructional development are stressed. The administration and interpretation of assessment techniques is included. Application of this information to the law, best practices, theory and indvidual needs is reviewed.
Prereq: admission to the graduate program in Special Education and department permission

SPLI679/680/68I Special Topics I/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPLI693 Learning Disabilities

## Practicum 4 Hrs

This course involves an intensive study of children with learning and behavior problems. Evaluation, planning, diagnostic teaching, consultation and prescriptive writing are included.
Prereq: department permission

## SPLI697/698/699 Independent Study

 I/2/3 HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## SPLI7I2 Research Colloquium: Learning

## Disabilities <br> 2 HRS

An examination of current research dealing with theoretical and therapeutic implications for children and adults with learning disabilities and their families. Individual investigation and presentation required.
Prereq: SP, or equivalent.

# Physical Impairment or Other Health Impairment Courses 

## SPPIsoo Professional Educator

Development Program I/2/3 hrs For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

SPPI590/591/592 Special Topics $1 / 2 / 3$ HRS An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPPI597/598/599 Independent Study I/2/3 HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.

## Prereq: department permission

SPPI679/680/68I Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPPI697/698/699 Independent Study I $2 / 3$ HRS

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Speech and Language Impairment Courses

## SPSIfoo Professional Educator

Development Program $\quad 1 / 2 / 3$ hrs For in-service professional and personal development. May be repeated for credit. Not applicable to an advanced degree.

## SPSIso8 Multicultural Issues in Intervention for Communication Disorders <br> 2 HRS

Survey of language and cultural influences of major racial and/or ethnic groups, and resultant communication patterns. Differential diagnostic approaches to determine communication disorder or difference. Educational effects are also covered.

## SPSIfi6 Introduction to Graduate

 Study in Speech-Language Pathology3 HRS
This course, customarily taken in the first or second semester of the graduate program, fo-
cuses on research methodologies in the area of human communication development and disorders. Students will learn to read professional literature critically and to apply the findings of research to clinical management of communication disorders. In addition, students will review standards for clinical certification in speechlanguage pathology and will initiate a portfolio of knowledge, skills and competencies to be attained during the course of graduate study.

## SPSIs 28 Clinical Practice in Speech-

Language Pathology I
2 HRS
Supervised clinical practicum experience with children and adults in individual and group settings. Focus on assessing and treating a variety of communication disorders including accent reduction, phonological, articulation, and language disorders in children and adults.
Prereq: department permission

## SPSI 538 Clinical Practicum in Speech- <br> Language Pathology II 2 hrs

Supervised clinical practicum experience with children and adults in individual and group settings. Focus on assessing and treating a variety of communication disorders including voice, fluency, neurogenic, oral-motor and language disorders.
Prereq: SPSI528 and department permission

## SPSI55s Neuroanatomy and Physiology for the Speech-Language <br> Pathologist <br> 2 HRS

A lecture class concerned with development, maturation and function of the human central nervous system with emphasis on those neural structures and processes involved in the learning and usage of speech and language.

## SPSIf68 Diagnostic Methods: Assessment of Speech and Language Disorders in Children 3 hrs

 Diagnostic procedures and routines used in the evaluation of speech and language disorders in children. Emphasis on familiarization with available evaluative tools, interviewing procedures, case analysis, test interpretation and report writing.
## SPSI578 Diagnosis and Treatment of <br> Audiometric Disorders <br> 3 HRS

Advanced techniques of testing the auditory function; interpretation of audiograms, hearing aid evaluations and use of differential hearing assessment techniques for children and adults with hearing disorders.

SPSI590/591/592 Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

SPSI595 Workshop 2 hrs
Please check the current class schedule for specific offerings.
Prereq: department permission

## SPSI597/598/599 Independent Study

 $1 / 2 / 3$ HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## SPSIGot Early Intervention for Speech

 and Language Impaired Children 3 hrs Current theoretical and therapeutic approaches to early assessment and intervention with speech and language impaired infants, toddlers and preschoolers. Survey of state and national laws and service-delivery options.SPSI6i2 Motor Speech Disorders 2 hrs Examines the nature, etiology and treatment of motor speech disorders resulting from neuropathologies. Related intellectual, perceptual, social and emotional problems will be considered, as well as the neuromuscular symptoms. Current speech pathology approaches will be emphasized within a total therapeutic program.
Prereq: SPSI555

## SPSI614 Aphasia <br> 3 HRS

Designed to provide a theoretical framework for understanding the symbolic language problems of aphasia, and current therapeutic approaches to the problem; aphasia resulting from cerebral insult after language has been established; and related physical and behavioral disturbances.
Prereq: SPSI555
SPSI6i8 Language Disorders in SchoolAge Children

3 HRS
The conceptual framework for thinking about language disorders in school-age children with special emphasis on language assessment and language interventions in school settings.

## SPSI6zo Consulting and Interviewing in Speech Pathology <br> 2 HRS

 Instruction and experiences in preparing students to manage interviewing, consulting and educational activities for families of persons with speech and hearing disabilities, and/or clients with disabilities.SPSIG22 Augmentative Communication 3 hrs This course focuses on a historical perspective and philosophy of augmentative communication, with assessment and intervention considerations. Includes emphasis on aided, unaided, electronic and gestural communication techniques.

## SPSI624 Acquired Neurogenic Cognitive-Communication Disorders

3 HRS
This lecture/discussion course will focus on the cognitive and communicative changes resulting from neurogenic etiologies. Speech-language pathology assessments tools and intervention strategies for persons with brain damage result-
ing from conditions such as unilateral right hemisphere lesions, traumatic brain injuries, dementing illness and anoxic encephalopathy will be addressed.
Prereq: SPSI555

## SPSI625 Dysphagia

2 HRS
This is an introductory course in swallowing disorders. The student will develop a basic understanding of the anatomy and physiology of deglutition, the various procedures used to evaluate swallowing problems and treatment approaches. Students will emerge from this experience prepared to profit from clinical experience in dysphagia during internships.

SPSI679/680/68I Special Topics i/2/3 hrs
An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPSI687 Clinical Internship in SpeechLanguage Pathology I 4 hrs

 Opportunity to practice speech and language assessment and intervention in a clinical setting. Experience with children and adults with multiple disabilities. Offered on a credithno- credit basis.Prereq: SPSI528, SPSI538 and department permission

## SPSI688 Clinical Internship in Speech-

Language Pathology II
4 HRS
Opportunity to practice speech and language assessment and intervention in a clinical setting. Experience with children and adults with multiple disabilities offered on a credit/no- credit basis.
Prereq: SPSI528, SPSI538 and department permission

## SPSI689 Public School Internship in

Speech-Language Pathology 4 hrs Supervised practice in a public school setting. Offered on a creditho-credit basis.
Prereq: SPSI528, SPSI538 and department permission

## SPSI694 Professional Issues in SpeechLanguage Pathology 2 hrs

Emphasis on current issues, state and national laws, professional ethics and organization and administration in speech-language pathology. Students will present materials for summative assessment of progress through graduate program. Offered on a creditno-credit basis.

## SPSI697/698/699 Independent Study

 I/2/3 HRSAn intensive study of a problem or group of problems, under the direction of a University faculty member. Offered on a credit/no-credit. Prereq: department permission

## Exercise Science and Athletic Training Courses

## SPMD 580 Introduction to Orthotics

 and Prosthetics2 HRS
Course is specifically designed for students possessing a baccalaureate degree who wish to become certified orthotists or prosthetists. Seniors who wish to explore career opportunities in either discipline are encouraged to take the course for undergraduate credit. Scope of practice and common pathologies encountered as a clinician will be covered.

## SPMD58i Musculoskeletal Pathologies

for Orthotics and Prosthetics 3 hrs Required course for students possessing a baccalaureate degree who wish to become certified orthotists or prosthetists and recommended for seniors who wish to explore career opportunities in either discipline. Pathologies commonly encountered in orthotic and prosthetic practice will be related to the development of appropriate orthotic and/or prosthetic management.

## SPMD582 Kinesiology-Biomechanical

## Basis of Orthotic \& Prosthetic

Management
3 HRS Introduction of biomechanical principles that act to restore normal or near-normal patient function including essential mechanical principles that help control movement of the spine and lower extremity with and without external devices. Required course for graduate certificate students wishing to obtain certification in orthotics or prosthetics.

SPMD590/591/592 Special Topics i/2/3 hrs An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPMD597/598/599 Independent Study 1/2/3 HRS

An intensive study of a problem under the direction of a University faculty member.
Prereq: department permission

## SPMD6os Clinical Gait Analysis -

Measurement and Interpretation 3 hrs Methods of collecting and interpreting normal and pathological three-dimensional kinematic and kinetic gait data.
Prereq: SPMD582

## SPMD6io Spinal and Upper Extremity Orthotics <br> 3 HRS

Provides the student with a detailed functional analysis of the cervical, thoracic and lumbar spine as well as the biomechanics and kinematics of the spine and upper extremity appendages. Scientific and practical basis of spinal and upper extremity orthotic care will be pre-
sented. Required course for graduate certificate in orthotics.
Prereq: SPMD582

## SPMD6is Lower Extremity

## Prosthetics I

3 HRS
Causes of lower extremity amputation and its prosthetic management are presented. Effects of amputation level, and biomechanical constraints that different prosthetic designs impose on patients is examined. Required course for the graduate certificate in prosthetics.
Prereq: SPMD582
SPMD620 Clinical Affiliation 2 hrs Students will be assigned to an affiliated clinical facility to observe and participate in either orthotic or prosthetic management of patients. This affiliation must have consent of the department director. No more that two students per discipline will be placed with any given instructor.
Prereq: department permission

## SPMD630 Research Methods for

Orthotics and Prosthetics 3 hrs Non-parametric statistical design and analysis techniques used in applied research for small sample sizes in orthotics and prosthetics is emphasized. Required course for graduate certificate students wishing to become certified in either discipline.
Prereq: SPMD582

## SPMD640 Lower Extremity <br> \section*{Orthotics I}

3 HRS
In-depth study of design, fabrication and application of foot and ankle orthoses. Theoretical and applied issues in optimizing orthotic treatment will be examined. Students will evaluate various designs of foot orthoses, shoes and ankle-foot orthoses, which include: metal, thermosetting and thermoforming designs. Required course for graduate certificate orthotics.
Prereq: SPMD582

## SPMD645 Lower Extremity Prosthetics II

3 HRS Builds on SPMD615 and synthesizes the theoretical principles and clinical procedures of trans-femoral prosthetics. Particular emphasis is placed on the biomechanics and kinematics of a proximal amputation. Patient evaluation, prescription criteria and appropriate component selection are central principles of this course. Required course for graduate certificate prosthetics.
Prereq: SPMD582

## SPMD6;o Lower Extremity

## Orthotics II

3 HRS
Content includes the principles, components and techniques of lower extremity orthoses used at, and proximal to, the knee. Instruction includes knee orthoses (KO), hip orthoses (HO), knee-ankle-foot (KAFO) and hip- knee-anklefoot (HKAFO) orthoses. Conventional polymer and rotary control orthoses will be presented.
Prereq: SPMD582

## SPMD65s Upper Extremity

Prosthetics
3 HRS
Combines upper extremity anatomy and biomechanics with kinematics to design upper extremity orthoses and prostheses. Clinical evaluation techniques will be coupled with the appropriate orthotic and prosthetic management. Students will evaluate case studies and integrate their knowledge to prescribe appropriate orthoses and prostheses for patients. Required graduate certificate prosthetics course.
Prereq: SPMD582

## SPMD66o Advanced Techniques and <br> Procedures in Orthotics and <br> Prosthetics <br> 2 HRS

 Advanced techniques for prosthetics and orthotic management of patients are presented. State of the art materials and methodologies are discussed along with an analysis of current research of orthotic and prosthetic procedures. Includes current and classical research on orthotic and prosthetic technology.Prereq: SPMD582

## SPMD665 Administration of Orthotics and Prosthetic Facilities in the

Public and Private Sectors 2 hrs Administrative practice of a contemporary orthotic and/or prosthetic facility. Includes but not limited to policy development, insurance, managed care, personnel, management, billing, accounting and regulating agencies such as the American Board of Certification (ABC) and the Occupational Safety and Health Administration (OSHA).
Prereq: SPMD582
SPMD679/680/68I Special Topics i/2/3 hrs
An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## SPMD697/698/699 Independent Study

 I $2 / 3$ HRSAn intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Spanish Courses

SPNHsig Spanish Phonology 2 hrs A study of the articulatory basis of the sounds of Spanish. Drills on rhythm and intonation patterns, with practice and recordings in the laboratory.

SPNH590/591/592 Special Topics i/2/3 HRS An intensive study of a specific area of Spanish language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with permission. Not more than six hours of special topics may be used on a degree program.

## SPNH597/598/599 Independent Study

 $1 / 2 / 3$ HRSIntensive study of a problem, under the direction of a member of the graduate faculty. Not more than six hours of independent study may be used on a degree program.
Prereq: department permission

## SPNH6io Intensive Summer Program in Spanish <br> 6 HRS

Intensive summer course offered in Mexico. Small-group (four or five students) language instruction, with many different instructional levels available. Students advance according to individual progress. Students live with Mexican families. May be repeated for credit.

SPNH620 Spanish Grammar and Syntax 2 Hrs The morphological and syntactical structure of Spanish.
Prereq: SPNH443 or equivalent

## SPNH62i Graduate Spanish

## Conversation

2 HRS
A continuation of advanced conversation with emphasis on matters of diction and style. May be repeated for supplementary credit.
Prereq: SPNH444 or equivalent

## SPNH646/647 Spanish for Business <br> Practices 3 HRS EaCh

These courses teach the correct usage of Hispanic business and financial vocabulary, train the students in the reading, writing and translation of Spanish commercial documents, and familiarize students with relevant bibliographical resources. Cannot be taken for credit by students who received credit for SPNH446/447 Business Spanish.

SPNH679/680/68I Special Topics i/2/3 Hrs An intensive study of a specific area of Spanish language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with permission. Not more than six hours of special topics may be used on a degree program.

SPNH682 U.S. Dialects of Spanish 3 hrs A study of the dialects of Spanish spoken in the United States, including their historical background and their modification through contact with English. A minimum of 24 hours of field experience will be required.
Prereq: an introductory course in linguistics
SPNH692 Research Project 3 hrs
Intensive study of a specific project in Hispanic language, literature and/or culture, under the direction of a member of the graduate staff. Final report normally in Spanish.
Prereq: completion of 15 hours in the core curriculum and department permission

## SPNH697/698/699 Independent Study I/2/3 HRS

Intensive study of a problem, under the direction of a member of the graduate faculty. Not more than six hours of independent study may be used on a degree program.
Prereq: department permission

## Social Work Courses

## SWRKsoz Social Work Profession and Services <br> 3 HRS

Designed to provide students with an overview of social work, socialization to the profession and an understanding of social work ethics. Content includes history and analysis of the profession; its scope, methods, values and organization of services. It will focus on practice in a variety of settings with oppressed populations.
Prereq: admission to M.S. W. program

## SWRKgo6 Human Behavior and the Social Environment I: Individuals and Families 2 hrs

This course provides a foundation of biopsychosocial knowledge related to individuals and families. It includes developmental stages, predictable life cycle changes, crises, theories of personality and family functioning, and factors promoting strengths and resilience.
Prereq: social work students only

## SWRKsoz Human Behavior and

 the Social Environment II: Groups, Organizations and Communities2 HRS
This course provides foundation knowledge about the behavior and development of groups, organizations and communities. The impact of mesosystems and macrosystems upon individuals' and families' experiences is also explored.
Prereq: SWRK506

## SWRKsio Communication Skills for

 Professional Practice 3 HrsThe focus will be on relationship building and communication skills to engage and assess different sized systems (e.g., families, individuals, groups, organizations, communities). Emphasis will be on the helping process, information gathering, assessment and contracting. Written skills common to social work will also be emphasized.
Prereq: SWRK507

## SWRKszo Generalist Social Work

 Practice3 HRS
This course introduces the student to a generalist and ecological systems approach to practice in which the social worker is seen as a change agent, the client is seen as a client system and the two work together to effect change with a target system that may or may not be synonymous with the client system. The student will learn ways of assessing various sized systems, how to develop a plan of action and how to negotiate a contract for service. A variety of intervention strategies will be introduced. Termination, follow-up and evaluation complete the phases of the sequential helping process covered in this course.
Prereq: SWRK510
SWRKg2I Policy Analysis and Change 3 hrs This course focuses on current social policy and its intended and unintended effects on client populations. Students will develop skills in both analysis and strategies for policy development and change.
Prereq: SWRK502

## SWRK 526 People of Color: The Non-

 deficit Perspective2 HRS Examines the social realities in which people of color function, and how these interact with developmental processes to establish the sense of identity. Provides students with a strengths perspective for explaining behavior and integrates this into an ethnic-sensitive approach for practice.
Prereq: SWRK507
SWRK 528 Practice with Women 2 hrs
Focuses on women's unique experience in society and women's issues, including violence, sexual exploitation, mental illness, poverty, homelessness and chemical dependency.
Prereq: SWRK507

## SWRK 530 Social Work Research Methodology

3 HRS
This course is designed to provide students with an introduction to statistics and research methods. Students will be introduced to quantitative and qualitative methods in the human services, and the use of the computer in data analysis and management.
Prereq: SWRK506

## SWRK 540 Policies and Issues in Services

 to Families3 HRS
The course will examine in depth the field of family and children's services through the process of identifying and analyzing issues crucial to the field, analyzing policies and
legislation, and critically examining processes integral to the service delivery structure.
Prereq: SWRK610

## SWRK54i Specialized Services for Families with Children in

 Placement3 HRS
This course provides practice knowledge and skills in working with families where out-ofhome placement has become necessary, and children are in foster care, group, residential or adoptive settings. Emphasis will be on preventing placement, and planning for permanence for children. The social worker's role in serving families where placement has occurred and children in placement will be the primary focus.

## SWRK542 Family-Centered Practice 3 hrs

 Students will deepen their understanding of the family as a social psychological system that must meet the needs of both adults and children. In developing and implementing services to families and children, the prevention of placement, whenever possible, is seen as a primary goal. The course will enhance practice knowledge and skills in delivering preventive, supportive, therapeutic and supplementary services to families in need of help. Particular attention will be given to working with vulnerable families in which children have been identified as neglected or abused.Prereq: SWRK592

## SWRK 543 Practice with Children and Youth <br> 2 HRS

This course enables students to engage, assess and intervene on behalf of maltreated children and youth. Special developmental issues and
needs will be examined. Strategies and roles of practice with children in their own families, foster and adoptive homes, and residential settings will be addressed.

## SWRK546 Law and Family <br> 3 HRS

 Social workers and lawyers frequently find themselves operating together around issues and problems involving individuals and families, as in cases of divorce, child abuse and neglect, child custody, delinquency and mental health. The student will examine both legal and social work perspectives in terms of clients' rights and needs, and professional goals. Particular attention will be paid to areas of possible conflict. Use of the court and legal authority in family affairs will be explored. Racism and sexism in relationship to the law and to the social work component of legal institutions will be considered.SWRK55o Working with Aging People 3 hrs This course is designed to provide social work students and students in related disciplines with the sensitivity, knowledge and skills necessary to enhance their understanding of the pleasures, problems and needs of aging people and to develop their effectiveness in providing services to, and working with, aging individuals, families, groups, agencies and communities. This course will focus on the role of the human service provider in relation to the direct provision of services. It will examine the political and psychosocial factors that effect the availability, provision and acceptance of such services.

## SWRK552 Policy Issues and Older

## People

3 HRS
This course is designed to introduce students to basic policy concepts and to familiarize them with major aging policies, including the Older Americans Act, Social Security and Medicare. Also, the student will explore various key policy issues such as housing, health care, retirement and pensions. Programs and services that evolve out of aging policy initiatives will be considered. Prereq: SWRK610

## SWRK553 Ethnicity and Gender Issues Among the Aged <br> 2 HRS

This course will examine research pertaining to gender and minority group differences in the aging process, and the implications for social work practice.

SWRK 560 Case Management
3 HRS
The course is based on a six-stage model of case management which includes: engaging, assessing, planning, accessing resources, coordinating and disengaging. It is designed to provide an understanding of the theoretical basis of the model and to discuss a context for the main focus of the course, which is on methods that can have practical application to case management in a variety of fields. The course offers hands-on experiences in a variety of techniques.

## SWRK57o Supervising Staff and

## Volunteers

3 HRS Models of supervision and the roles of the social services supervisor will be examined. Attention
will be given to the basic knowledge, skills and values required for effective supervision and mid-level management of social services agencies. The course will review supervisory and managerial activities, such as planning, program implementation, marketing, program evaluation, budgeting, leadership, conflict resolution and consultation. The role of the supervisor in utilizing supervision will also be examined.

## SWRK588/589 Field Professional

 Experience I, II4/4 HRS
The field placement agency in consultation with the Department of Social Work provides a generalist learning experience and supervision that are appropriate to the objectives of the graduate program and to the level of the student's knowledge and capacity. Students spend 16 hours per week in the field placement setting. A weekly seminar relating field learning to classroom content is an integral part of this course.
Prereq: SWRK510
SWRK $590 / 59 \mathrm{I} / 592$ Special Topics i/2/3 hrs Special topics integral to contemporary social work will be presented. The content and form of this course will vary, and will typically consider topics not given in usual course offerings. Since the topics change, students may take the course more than once. Not more than six hours of special topics may be used on a degree program. Prereq: department permission

## SWRKs9i Proseminar: Research and

 Diversity2 HRS
The advanced standing proseminar in research and diversity is designed to prepare advanced standing social work students with the art knowledge about social work research methods, people of color and women. The course emphasizes research methods and analytic approaches in the exploration of theory and issues affecting service delivery to people of color and to women. From this critical review, students will develop and refine knowledge and skills necessary for non-deficit, strength based practice with people of color and women.

## SWRK592 Special Topics: Family and the Social Environment 3 hrs

 This course covers basic human behavior theory related to families and children in their social environment. It will examine the diverse forms and structures of families as well as issues facing families in contemporary society.Prereq: SWRK610 and M.S. W. concentration in families and children

## SWRK597/598/599 Independent Study

 I/2/3 HRSIntensive study in areas not provided in other courses, or advanced study in areas of special interest to the student, under the direction of a social work faculty member.
Prereq: department permission
SWRK6oz Community Building 2 hrs Community building strengthens ties between groups and organizations for collaborating on goals such as economic development or the de-
velopment of social services. Social work community practices methods for professional and civic activity will be covered, such as articulating issues, analyzing action proposals, developing leadership, networking and coalition building.

## SWRK6io Empowerment: Social Justice and Social Change <br> 2 HRS

Focuses on the societal forces contributing to oppression, and the resulting impact on individuals, communities and society. Concepts of social justice and empowerment as they relate to gender, race, class, age, sexual orientation and mental and physical status will be organizing themes. Skills will be developed in the range of social change intervention.
Prereq: SWRK589 or SWRK591
SWRK63o Action Research 3 hrs This covers procedures for conducting quantitative and qualitative research to social program evaluation and social practice. Planning will take place for a research project that will be initiated and completed in SWRK692.
Prereq: SWRK610

## SWRK643 Families in the Social

 Environment3 HRS
This is the advanced Human Behavior in the Social Environment course for MSW students in the Child and Family concentration. This course explores the social work theories of families within the context of social, cultural and geographic communities examining the relationship between families and the broader society. Available only to students in the Master of Social Work with a Child and Family concentration.
Prereq: SWRK610, Coreq: SWRK540

## SWRK6so Policy Issues in the Health Care Setting <br> 3 HRS <br> This course will cover historical developments

 in the formation of mental health and substance abuse policy in the United States. Current policy directives will be analyzed with a focus on their impact on society in general and specifically on the severely mentally ill, those with dual problems of mental illness and substance abuse, people of racial and ethnic minorities, children, the elderly and women.Prereq: SWRK610

## SWRK6s 2 Dynamics and Practice:

Mental Illness Services
3 HRS
This advanced knowledge and practice course is required in the chemical dependency and mental illness rehabilitation services concentration. A biopsychosocial model provides the framework for understanding the dynamics involved in mental illness and unusual disorders. Special attention will be given to gender, sexual orientation, race, culture and class.
Department permission required.
Prereq: advanced program graduate students in social work, SWRK588/589, SWRK610

## SWRK653 Dynamics and Practice:

Chemical Dependency Services 3 hrs This advanced knowledge and practice course
is required in the chemical dependency and mental illness rehabilitation services concentration. A biopsychosocial model provides the framework for understanding the dynamics involved in chemical dependency and abuse. Special attention will be given to gender, sexual orientation, race, culture and class.
Department permission required.
Prereq: advanced program graduate students in social work, SWRK588/589, SWRK610

SWRK696 Crisis Intervention 2 hrs This course will give the student an introduction to the history and theory of crisis intervention; characteristics of being in a crisis state or a condition that puts the person, group or community in a crisis or at risk for crisis; and detailed information on specific crisis situations. The class will view crises from ecological systems and strengths perspectives. Instructions for intervention methods will draw on individual strengths and environmental systems.

## SWRK658 Chemical Dependency and <br> Addictions <br> 3 HRS

Critical examination of current approaches for treatment and prevention of drug and alcohol dependency in the context of culture and gender. The physiological, psychological and social impact of chemical dependency will be explored.

## SWRK662 Grant Writing and Resource Development <br> 3 HRS

 Resource development strategies will be examined for implementing creative human services programs. Students will learn to assess resources within a community, plan and develop networks to address unmet needs, locate funding opportunities and complete a grant-writing and/or fund-raising project.
## SWRK66s Social Work Practice in Behavioral Health

3 HRS This course provides students with knowledge and skills to become competent practitioners in behavioral health social service delivery. Students learn how social workers provide behavioral health services to individuals, families and communities. Practice demonstrations are required, utilizing theoretical and sciencebased knowledge and skills to help behavioral health consumers via social work case management methods. Available only to students in the School of Social Work or in the College of Health and Human Services or Social Sciences with the permission of the instructor and relevant schooll department heads.
Prereq: department permission
SWRK679/680/68I Special Topics i/2/3 hrs Special topics integral to contemporary social work will be presented. The content and form of this course will vary, and will typically consider topics not given in usual course offerings. Since the topics change, students may take the course more than once. Not more than six hours of special topics may be used on a degree program.

## SWRK68o Special Topics: Social Work

 Practice in Kinship Care 2 hrs This course examines the role of kinship care as part of the continuum of child welfare services. Students will come to understand diverse family structures and the importance of the kinship network, particularly for families of color. A major focus of the course will be on practice skills such as assessment, community resources and effective case management.
## SWRK68i Special Topics: American Indian World - Past, Present and Future <br> 3 HRS

The plight of American Indians will be examined through law and history. By assessing the Indian "world view," students will discover the chasms between European and Indian concepts. This course provides knowledge of America's least-known minority.

## SWRK68i Special Topics: Dynamics of Mental Illness and Chemical Dependency <br> 3 HRS

This course will cover basic human behavior theory related to both mental illness and chemical dependency. This will include biological, psychological and social factors in etiology. Diagnostic categories of psychopathology, and the major categories of drugs typically abused will be examined.

## SWRK68i Special Topics: Self-Help and Support Groups <br> 3 HRS

This course introduces students to theory, research and practice principles related to self-help and support groups. Healing, other group-level factors, member participation and practitioner roles will be addressed.

## SWRK68i Special Topics: Social Work Administration <br> 3 HRS

This course is an administrative practice course focusing on task groups and organizations. Practice methods in leadership and management grounded in group and organization theory will be emphasized. The course will address specific skills in forming and working with committees and boards of directors, organizational leadership, marketing, personnel and conflict resolution.

## SWRK688/689 Field Experience

 III, IV4/4 HRS Students are required to take two successive semesters in field placement (SWRK688 and SWRK689) involving 20 hours per week in a placement-supervised field setting. A two-hour field seminar designed to integrate field experience and the theoretical base for practice will be held weekly. The focus of the field experience courses will be to sharpen practice knowledge for skills related to client populations that have been victimized or discriminated against in their personal lives or by society. Within their concentration area, students will be placed in field situations that work with these populations. Field sites will be set up in three ways: ( 1 hr ) A traditional field placement will have students for 20 hours per week, for two semesters, with
an agency-based, qualified field supervisor. A variation on this model will be the part-time placement in which a student will work fewer hours in the agency and extend the length of the placement in order to attain the requisite 500 hours. ( 2 hrs ) Students who are employed in agencies serving oppressed clients may use these agencies as field sites provided a suitable learning experience can be worked out with the agencies, and the student is supervised by a qualified M.S.W.-level social worker. (3 hrs) Students may be part of a student unit made up of five or six students placed in an agency serving one of the concentration areas, with an EMU faculty member and the assistance of agency social workers, field instructors and clients. The underlying philosophy of the seminars is to establish a process in which agency personnel, faculty, students and clients can all be both teachers and learners.
Prereq for SWRK610 and SWRK542 or
SWRK550 or SWRK681.
SWRK692 Research Project 2 hrs
Provides an opportunity for practitioners to gain research competencies that are both quantitative and qualitative. The completion of an action research project culminates the graduate experience.
Prereq: SWRK630

## SWRK694 Community Action

## Seminar 2 hrs

This is a capstone course for integrating multidisciplinary courses with community building. Students design a community and apply social work methods of community practice to complete it. The seminar's networking and collaboration supports the diverse community building activities or participants.
Prereq: SWRK602

## SWRK697/698/699 Independent Study

 I/2/3 HRSIntensive study in areas not provided in other courses, or advanced study in areas of special interest to the student, under the direction of a social work faculty member.
Prereq: department permission

## Technology Education Courses

TEDUsoo Crafts
2 HRS
Basic craft ideas of wood, metal, graphics, plastics, leather and ceramics are explored. Additional elective areas also are available. Not open to departmental majors.

## TEDUsoi Crafts for Special

 Education2 HRS The development of craft activities to supplement the curriculum and provide therapeutic manipulative experiences and leisure activities in the special education classroom. Emphasis is given to the identification of industrial employment opportunities. Not open to departmental majors.

## TEDUsoz Career Education for the

## Elementary Child

2 HRS A study of the concepts and methods used to develop an awareness of the careers of society with elementary school children. Emphasis is on individual and group activities relevant to integrated curriculum studies. Also open to departmental majors.

## TEDU504 Career Exploration and

Preparation 2 hrs
Practical applications of experience-based career education will be examined as related to secondary school industrial education. Field visitations and public school resource personnel will illustrate to the experienced teacher practical applications of the exploratory and preparatory concepts of career education. Also open to departmental majors.

TEDU523 Technological Systems 2 hrs The description of technological systems utilized in physical, informational and bio-related domains of human activity. Opportunity to apply system software to manipulate technical devices found in technology education classrooms and laboratories.

## TEDU524 Computer Applications for Vocational-Technical

Instruction 2 HRS
Description and illustration of computer hardware and software for vocational-technical education. Mainframe and microcomputer systems will be reviewed. Opportunity to prepare and develop computer instructional materials for the microcomputer.
Prereq: technology education majors or graduate standing

## TEDU52s Robotics Applications in

Technology Education 2 hrs An overview of the history, principles of operation, manufacture and use of robots and robotic systems. Emphasis provided to the analysis of these topics for programs of study in technology and industrial-vocational education.
Prereq: technology education majors or graduate standing

## TEDUs3o Technology in the

Workplace
2 HRS
The applications of technology in business, industrial and service institutions will be viewed through a series of field visitations. Implications for educational programs that prepare employees for those institutions will be defined.
Prereq: technology education major or graduate standing

## TEDUsso Development of Technology Education <br> 2 HRS

The historical development of industrial education programs; the influence of industrial, technological and societal change; institutions, professional associations, movements and leaders in the field.

## TEDU5si Philosophy of Technology

## Education

3 HRS
Philosophical viewpoints concerning technology education and industrial-vocational education; historical development and philosophical justification of modern programs.

## TEDU587 Cooperative Education in

Technology Education 3 hrs
A cooperative education experience integrating classroom theory with a paid work experience in an area related to the student's field of study. Work sites must be approved by the coordinator of cooperative education and the Business and Technology Education Department. Additional assignments may be required. Offered on a credit/no-credit basis.
Prereq: department permission
TEDU590/59I/592 Special Topics i/2/3 hrs Provides for intensive study of selected topics drawn from current developments in career, technical and workforce education.

TEDU594/595/596/597 Workshop i/2/3/4 HRS Students will be provided focused practical and theoretical study in a selected topic area in career, technical and workforce education.

## TEDU597/598/599 Independent Study

 I/2/3 HRSOpportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "Independent Study" (technical study without the prerequisite of TEDU677) and "Research Proposal Format" guideline sheets are available from the department.
Prereq: department permission; topics must be approved by the department during the semester prior to the study

## TEDU607 Colloquium <br> 2 HRS

A series of academic meetings led by a specialist on topics pertinent to graduate students concerning theory and/or practice in career, technical and workforce education.

## TEDU6so Industrial Education in

Colleges and Universities 2 hrs The philosophy, history and development of industrial teacher education programs; current trends in selected institutions.

## TEDU65i Administration of Vocational-

 Technical Education 2 hrs Focuses on the legislation, programs, planning and regulations that are unique to vocational education and to the administrative functions that are directly related. Recommended for school administrators and vocational teacher education students.
## TEDU652 Technical Programs in

Community Colleges . 2 hrs
Nature, scope and functions of vocational and technical programs in community colleges; recent developments.

## TEDU6s5 Supervision of Technology

## Education

2 HRS
Principles and problems involved in the improvement of instruction in technology education. Open to majors in technology education and to majors in administration.

## TEDU663 Instructional Media in

Technology Education
2 HRS
Recent developments in instructional media and technology, the relationship of media to the psychology of learning, and implications for programs of technology education.

TEDU664 Laboratory Planning 2 hrs Analysis of space and equipment requirements of technology and industrial-vocational education laboratories. Consideration of specific functions, safety, efficiency, location and design as they relate to educational philosophy and objectives.

## TEDU679/680/68i Special Topics I/2/3 HRS

Provides for intensive study of selected topics drawn from current developments in career, technical and workforce education.

## TEDU682/683/684/685 Workshop I/2/3/4 HRS

Students will be provided focused practical and theoretical study in a selected topic area in career, technical and workforce education.

## TEDU686 Practicum in Technology

Education
2 HRS
An examination and evaluation of a variety of instructional methods. Direct experiences are provided in developing and utilizing instructional materials.

## TEDU688 Internship in Technology

 Education 2 hrs A supervised experience in education. Opportunities are provided for directing a variety of teaching-learning experiences contracted with a University faculty member. Offered on a credit/ no-credit basis.
## TEDU690/691/692 Thesis I/2/3 HRS

 A research-based study conducted under the supervision of a University graduate faculty member and departmental graduate committee, under the guidelines described in the EMU Technology Education Thesis Manual. Offered on a credit/no-credit basis.Prereq: department permission
TEDU697/698/699 Independent Study I/2/3 HRS
Opportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "Independent Study" (technical study without the prerequisite of TEDU677) and "Research Proposal Format" guideline sheets are available from the department.
Prereq: department permission; topics must be approved by the department during the semester prior to the study

## TESOL Courses

## TSLNsoo Observation and Analysis of

 ESL Programs> I HR

Observations of ESL classes in varied contexts, and practice in using different types of observation instruments. Seminar topics focus on ESL classrooms, noting differences for ESL classrooms.

## TSLNsoi Theoretical Foundations of

Second-Language Pedagogy 3 hrs Overview of the principal theories of language description, language learning and language use, with emphasis on those factors that affect sec-ond-language acquisition and learning.
Prereq: department permission

## TSLNsor A Pedagogical Grammar and

> Phonology of ESL

3 HRS
Examines the structure and sound systems of American English as it applies to the teaching and learning of English as a second language. Emphasizes practical aspects of usage.
Prereq: department permission

## TSLNsoz Observation and Analysis of

 Multicultural Classrooms 2 hrs This course provides teachers with observation and analysis skills for classroom-based research, and techniques for working with paraprofessionals with language minority students in the public schools.Prereq: admission to the TESOL graduate certificate program

## TSLNs2o Foreign Language Testing and Evaluation

2 HRS
Examines the role of testing; surveys types of tests; discusses the criteria of a good test; analyzes tasks that variously require listening, speaking, reading, writing and communicative competence; and provides practice in evaluating and constructing test items.
Prereq: TSLN501 and TSLN502

## TSLNs2I Content-Based Materials and

Testing in the ESL Classroom 2 hrs This course provides guidelines for teachers who want to develop materials and tests appropriate for the integration of academic content with English language skills for non-native speakers of English.
Prereq: admission to the TESOL graduate certificate program

## TSLN 525 Second Language Acquisition <br> for Classroom Teachers 3 hrs

Examines the learning of English, simultaneous with or subsequent to one's first language in the K-12 setting in the United States. Linguistic, cognitive, affective, cultural, social and instructional factors will be addressed.
Prereq: admission to the TESOL graduate certificate program

## TSLN530 TESOL Methods: Reading,

Writing and Grammar 2 hrs Examines content and methodology in teaching TESOL reading, writing and grammar to di-
verse groups of students. Students are expected to investigate different techniques, analyze them and research one area.
Prereq: TSLN501 and TSLN502

## TSLNs3i TESOL Materials: Reading, <br> Writing and Grammar I hr

This class will provide students with opportunities to review, evaluate and adapt materials for use in teaching reading, writing and grammar to ESOL learners. Students will gain facility in matching and adapting texts and materials to the needs of different kinds of ESOL learners.
Prereq: TSLN501, TSLN502 and department
permission
Coreq: TSLN530

## TSLN532 TESOL Methods: Listening,

Speaking and Pronunciation 2 hrs Examines content and methodology in teaching TESOL listening, speaking and pronunciation to diverse groups of students. Students are expected to investigate different techniques, analyze them and research one area.
Prereq: TSLN501 and TSLN502

## TSLN533 TESOL Materials: Listening, <br> Speaking and Pronunciation i hr

This class will provide students with opportunities to review, evaluate, adapt and develop materials for use in teaching listening, speaking and pronunciation to ESOL learners. Students will gain facility in matching and adapting texts and materials to the needs of different kinds of TESOL learners.
Prereq: TSLN501, TSLN502 and department permission Coreq: TSLN532

TSLN590/591/592 Special Topics I/2/3 hrs An intensive study of a specific topic to be determined by the instructor's field of specialization and student interest. Not more than six hours of special topics may be used on a degree program.
Prereq: department permission

## TSLN597/598/599 Independent Study $1 / 2 / 3$ HRS

Intensive study of an issue related to the teaching and learning of foreign/second language, under the direction of a member of the graduate faculty. Not more than six hours of independent study may be used on a degree program.
Prereq: department permission
TSLN679/680/68i Special Topics i/2/3 hrs An intensive study of a specific topic to be determined by the instructor's field of specialization and student interest. Not more than six hours of special topics may be used on a degree program.

## TSLN688 TESOL Practicum

3 HRS
Supervised practical experience in TESOL appropriate to the student's intended teaching setting. With the guidance of a trained ESL teacher, the practicum student will select appropriate materials and techniques to develop the necessary skills in the learners, and will then apply them in classroom situations.
Prereq: TSLN530 and TSLN532

## TSLN694 Seminar <br> 2 HRS

Different topics are selected each semester for intensive study by advanced students. The course consists of review and discussion of contemporary issues in TESOL, based on research projects and review of the pertinent literature carried out by the student. Emphasis in seminar meetings on exchange of ideas and information developed in the research.
Prereq: 12 hours of core requirements

## TSLN697/698/699 Independent Study

 I/2/3 HRSIntensive study of an issue related to the teaching and learning of foreign/second language, under the direction of a member of the graduate faculty Prereq: department permission

## Women's Studies Courses

## WMSTsis/SOCLsis Sociology of Women

3 HRS
The course examines the changing role of women in American institutions, especially in the work force and in the family. Materials on minority and working-class women will be included.

## WMST $52 \mathrm{I} / \mathrm{INDT}_{520}$ Women and Technology

3 HRS This course surveys gender issues surrounding technology development, transfer and use. We will examine the gender implications of technologies used in everyday life, particularly those that apply to work, health, reproduction, education, and communication. Historical and crosscultural/global perspectives will be integrated into course themes.

## WMST525/HIST525 Technology, Social Change and the Role of Women <br> 3 HRS

This course examines the nature, origins and development of technology and its impact on women in the United States and Europe. We will explore problems stemming from current technological advances.

## WMSTszo Women in Film

3 HRS
This course examines relations between women and film. Various techniques for critical analysis are used to study how film represents gender, race, class, sexuality and culture. Possible topics include women as filmmakers, representations of women and women as spectators.

## WMST542/PSY542 Women and Mental Health

2 HRS
Focus on theory and research concerning women's responses to life stresses, women as clients in psychotherapy and the role of the female mental health professional.
Prereq: one course in psychology
WMST5so Feminist Thought 3 hrs Feminist Thought provides a scholarly overview of the literature and methodology of feminist studies in such disciplines as history, psychology,
literature, sociology, anthropology, economics, religion, health, law and politics.

## WMST56o Domestic Violence and

## Sexual Assault

3 HRS
A comprehensive study of the physical, sexual and emotional abuse that disproportionately affects women. Topics include theories of violence and intervention strategies.

WMST 575 Theories of Sexuality 3 hrs An interdisciplinary seminar examining lesbian, gay and bisexual literature, experience and theories of sexuality in relation to the study of women and gender

## WMST58I/SOFD 58 I Gender and

Education
3 HRS
This course examines the social construction of masculinity and femininity and its impact on the lives of teachers and students in schools.

WMST $590 / 591 / 592$ Special Topics i/2/3 hrs Course content consists of new topics in women's studies taught on an experimental basis, changing from one semester to the next. Not more than six hours of special topics may be used on a degree program.

## WMST597/598/599 Independent

 StudyI/2/3 HRS Intensive study of a problem or theory relevant to women's studies, supervised on an individual basis by a member of the women's studies faculty. Prereq: department permission

## WMST608 Colloquium: Research on <br> Women's Issues <br> 3 HRS

A colloquium exploring research on women's issues.
Prereq: WMST550

## WMST626 Topics in Feminist

Phllosophy 3 HRS Applies philosophical and feminist perspectives on women to the study of special topics in philosophy. Topics may include: epistemology, science, ethics, law, history of philosophy, multicultural responses to philosophy of women and continental perspectives.
Prereq: WMST550

## WMST66o/SOFD66o Teaching for

Social and Ecological Justice 3 hrs An advanced course creating bridges between critical and social theories and pedagogical practices leading to democratic, socially and ecologically just communities. The theoretical foundations of multicultural education, critical and feminist pedagogies, eco-justice pedagogy and service learning are examined. Some preparation in critical social theory required.
Prereq: a graduate-level course in SOFD or women's studies

WMST679/680/68i Special Topics i/2/3 hrs Course content consists of new topics in women's studies taught on an experimental basis, changing from one semester to the next. Not more than six hours of special topics may be used on a degree program.

## WMST686/687/688/689 Practicum

 $1 / 2 / 3 / 4$ HRSThis course will provide supervised field placement in places suitable to a candidate's career goals, including women's centers, women's shelters, personnel and administrative units in large corporations, neighboring community colleges and governmental agencies. Paper required.
Prereq: department permission
WMST690/691/692 Thesis I/2/3 HRS
A substantial and original undertaking in scholarly research designed to deepen and focus the student's interests. The preparation of the thesis will be consistent with the highest professional standards.
Prereq: department permission
WMST694/695/696 Final Рroject i/2/3 hrs An intensive, individualized research or creative project in women's studies, culminating in an appropriate final project.
Prereq: WMST550 and department permission

## WMST697/698/699 Independent Study <br> I $/ 2 / 3$ HRS

Intensive study of a problem or theory relevant to women's studies, supervised on an individual basis by a member of the women's studies faculty. Prereq: department permission

## Zoology Courses

## ZOOL soi Survey of the Animal

 Kingdom2 HRS A survey of the major animal groups from protozoans to mammals. Structure function; the basis for classification and the evolutionary relationships of the several groups. Not open to students who hold credit in BIOL205 or ZOOL222.

## ZOOLsoz Animal Behavior

2 HRS
This course examines the scientific study of animal behaviors. It covers how animals use behavior to meet the major challenges of life and how scientists test hypotheses and evaluate evidence regarding animal behavior. Secondarily, this course examines how scientists communicate with each other and the public.

## ZOOLs36 Vertebrate Tissues: Structure and Function <br> 3 HRS

 Vertebrate tissue structure and function are examined in a lecture, discussion, laboratory course. An original term paper is required. To be offered once a year. Counts as a technique course.Prereq: admission to master's of science in biology

## ZOOL57o Natural History of Invertebrates

3 HRS
A field course in the recognition, collection, identification and preservation of common invertebrates of Michigan, exclusive of the insects; natural history, ecology and economic importance. Counts as a taxonomic field course.
Prereq: admission to master's of science in biology

## ZOOL57i Natural History of

 Vertebrates3 HRS Vertebrates, their adaptations and natural history; the taxonomic classification, identification and distribution of local and other forms. Fieldwork, sometimes under adverse weather conditions and at night; accurate original data on local species. Counts as a taxonomic field course. Prereq: admission to master's of science in biology

## ZOOL572 Iснтнyology

3 HRS
A study of some aspects of the biology, classification, distribution, and evolution of fishes. Attention is given to the morphology, physiology, behavior, natural history and ecology of fishes through work in lecture, laboratory and in the field. Specific experience in the identification of the freshwater fishes of the Great Lakes region is provided in addition to a general survey of some marine fish families. Counts as a taxonomic field course.
Prereq: admission to master's of science in biology

## ZOOL574 Herpetology

3 HRS
Amphibian/reptilian biology; taxonomy, evolution, adaptations, anatomy, behavior, ecology, zoogeography. Field trips: some nocturnal, rainy and two Saturdays. Dissections: salamander, lizard. Study living/preserved representatives, extant families and American species. Field or library research project required. Counts as a taxonomic field course.
Prereq: admission to master's of science in biology

## ZOOL575 Ornithology

3 HRS
Field identification and census methods of summer and fall bird populations, behavior and ecology. A survey in the laboratory of major North American bird families. A student field project is required. Counts as taxonomic field course.
Prereq: admission to master's of science in biology
ZOOL582 Aquatic Entomology 3 hrs Aquatic insect families and some common genera; ecology, including adaptations to the aquatic environment, life histories and taxonomy. A collection of the common insect families of this area is required. Counts as a taxonomic field course. Prereq: admission to master's of science in biology

## ZOOL585 Entomology

3 HRS
A survey of the world of insects, their structure, function, behavior and ecology; identification and classification of local insects. A field project is required. Counts as a taxonomic field course.
Prereq: admission to master's of science in biology

## ZOOL586 Mammalogy

3 HRS
Some aspects of the biology of mammals; origin and evolution, anatomy, classification, adaptations and zoogeography. Natural history and ecology are studied in the field, including behavior and population dynamics. A collection of five or more museum study specimens of different species is required of each student. Counts as a taxonomic field course.
Prereq: admission to master's of science in biology

ZOOL590/591/592 Special Topics i/2/3 hrs
An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## ZOOL594/595/596 Workshop in Zoology $1 / 2 / 3$ HRS

Workshops will be offered dealing with selected areas. Workshops emphasize student participation and are designed to offer practical experience and training, and theoretical study. Topics to be announced. (See current campus and Continuing Education bulletins.)

## ZOOL597/598/599 Independent Study

I/2/3 HRS
An intensive study of a problem or group of problems under the direction of a faculty member.
Prereq: department permission
ZOOL673 Membrane Physiology 3 hrs A molecular study of animal membrane phenomena including receptor-ligand kinetics, effector protein responses and their interactions, and other events which are responsible for cell irritability, conductivity, respiration and metabolism. Counts as a technique course.
Prereq: admission to master's of science in biology

## ZOOL674 Animal Cell Physiology

Laboratory
I HR
A lab course on animal cell physiology. Laboratory study of the physiochemical relationships responsible for the properties of cell irritability, conductivity, contractility, metabolism, respiration, excretion, growth and reproduction.
Prereq: ZOOL673 or may be taken concurrently.
ZOOL679/680/68I Special Topics $1 / 2 / 3$ hrs An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program.

## ZOOL697/698/699 Independent <br> Study

1/2/3 HRS
An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: department permission

## Indices

Sections:<br>Course Prefixes<br>Policies Affecting You at EMU<br>Administrative Officers of the University<br>Faculty Index<br>Catalog Index<br>Campus Maps

## Disclaimer

Courses in this catalog have been authorized in accordance with University policies. Class schedule books must be consulted each semester for courses to be offered, since the frequency of offerings is determined by the department as program needs dictate. There is no assurance that a given course will be offered each year. The requirements stated in department summaries are intended to serve as guides to program planning and are subject to specific determination by, and consultation with, the departmental adviser.

## Course Prefixes

A department prefix or code is used to identify courses offered by Eastern Michigan University:

COLLEGE OF BUSINESS ..... COB
Accounting and Finance
Accounting ..... ACC
Decision Science ..... DS
Finance ..... IN
Computer Information Systems ..... IS
Production/Operations Management ..... POM
Management. ..... MGMT
Marketing ..... MKTG
Law ..... LAW
Supply Chain Management ..... SCM
COLLEGE OF EDUCATIONLeadership and Counseling
Educational Leadership ..... EDLD
Counseling. ..... COUN
Special Education
General... ..... SPGN
Cognitive Impairment ..... SPCI
Emotional Impairment ..... SPEI
Hearing Impairment ..... SPHI
Learning-Disabled .....  SPLI
Physical Impairmentor other Health Impairment .....  SPPI
Speech and Language Impairment ..... SPSI
Visual Impairment ..... SPVI
Student Teaching. ..... EDUC
Teacher Education
Curriculum. ..... CURR
Educational Media and Technology ..... EDMT
Educational Psychology ..... EDPS
Early Childhood Education ..... ECE
Reading ..... RDNG
Social Foundations ..... SOFD
COLLEGE OF HEALTH AND HUMAN SERVICES ..... IHHS
Health Promotion and Human Performance
Health Promotion and Human Performance
Athletics ..... ATHL
Health Education ..... HLED
Physical Education ..... PHED
Sports Management ..... SMGT
Exercise Science and Athletic Training ..... SPMD
Health Sciences ..... CLRA
Clinical Laboratory Sciences. ..... CLSC
Clinical Research Administration ..... CLRA
Health Administration ..... HLAD
Human Nutrition ..... DTC
Occupational Therapy ..... OCTH
Nursing ..... NURS
Social Work ..... SWRK
Gerontology ..... GERT
COLLEGE OF TECHNOLOGY ..... COT
Engineering Technology
Computer-Aided Engineering ..... CAE
Construction Management ..... CNST
Engineering Management ..... EM
Interior Design ..... IDE
Quality ..... QUAL
Technology Studies
Apparel, Textiles and Merchandising .....  ATM
Business Education. ..... BEDU
Business and Technology Education ..... BTED
Hotel and Restaurant Management ..... HRM
Interdisciplinary Technology ..... INDT
Legal Administration ..... LEGL
Technology Education ..... TEDU

## Policies Affecting You at EMU

In this section you will find the Student Code of Conduct, the EMU Alcohol and Other Drug Policy, the new Student Involuntary Administrative Withdrawal Policy, the Grade Grievance Procedures, Class Attendance Policy and the EMU Policy on Sexual Harassment.

These policies will not only serve as an important reference during your University experience, but they will also help you as a student to make informed choices.

## Notification of Student Rights under FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1) The right to inspect and review the student's education records within 45 days of the day EMU receives a request for access.

Students should submit to Eastern Michigan University's Office of Records and Registration written requests that identify the record(s) they wish to inspect. A University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2) The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.

Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3) The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception which permits disclosure without consent is disclosure to school officials with legitimate education interests. A school official is a person employed by EMU in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom EMU has contracted (such as an attorney, auditor or collection agent); a person serving on the Board of Regents; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll. The University may, without the student's permission, release certain information to parents or guardians of students under the age of 21 found responsible for violating any law, rule or University policy pertaining to drugs or alcohol.

EMU has designated the following items as directory information and these items may be included in publications or disclosed upon request without consent: the student's name; address; telephone listing; electronic-mail address; date and place of birth; major field of study; participation in recognized activities and sports; weight and height of members of athletic teams; dates of attendance; degrees and awards received (including, but not limited to, the Dean's List); and the most recent previous educational agency or institution attended by the student.

EMU reserves the right to make directory information public unless a student's written objection (specifying the category of information not to be made public without prior consent) is filed at the Office of Records and Registration within 14 days after each term begins.

Students who do not want to be included in the annual EMU Student Directory should complete a directory exclusion card by September 15. Cards can be picked up from University Publications, McKenny Information Center, Campus Life, Office of Records and Registration, Academic Advising Center, Office of Admissions or a residence hall information desk. They must be turned in by September 15 to Public Information, 18 Welch Hall. Requesting directory exclusion will remove your name, address and phone number from the current and subsequent telephone directories.
4) The right to file a complaint with the U.S. Department of Education concerning alleged failures by EMU to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education

400 Maryland Ave. SW
Washington, D.C. 20202-4605

## Applicable Laws for Americans with Disabilities

1973 Vocational Rehabilitation Act, Section 504
Colleges and universities nationwide have been protecting the rights of students with disabilities since the 1973 Vocational Rehabilitation Act, specifically Section 504, which states:

No otherwise qualified handicapped individual in the United States shall, solely by reason of handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

## Americans with Disabilities Act (ADA)

Unlike Section 504 of the Rehabilitation Act, the ADA applies to employers, public services, public accommodations, communication providers and transportation providers regardless of whether they receive or benefit from federal funding.

The ADA defines a person with a disability to mean a person who: (1) has a physical or mental impairment that substantially limits one or more major life activities; (2) has a record of such an impairment; or (3) is regarded as having such an impairment.

The ADA provides coverage in five different areas:
Employment
Public services/transportation
Public accommodations/transportation
Telecommunications
Miscellaneous

## EMU Policy on Sexual Harassment

The University's Mission Statement and accompanying Institutional Values and Guiding Principles reflect our collective commitment to providing an environment that positively affects the lives of all individuals who are part of the EMU community. The University's Sexual Harassment Policy affirms our shared values and responsibility to respect all individuals, and prohibits any member of the University community from engaging in sexual harassment activities that demean or diminish an individual in any way. Such activity is prohibited by law and by this policy. The rights and responsibilities inherent in this policy apply to all employees, students, guests and outside contractors. One of the strengths of Eastern Michigan University is that we value and respect human dignity and the rights of all people. Each of us shares the responsibility for ensuring that sexual harassment will not be tolerated and that we strictly adhere to the tenets of this policy. Copies of the policy and procedures are posted on the Web sites of the Office of Diversity and Affirmative Action, the Office of Judicial Services, Human Resources and the Office of the Assistant Vice President for Academic Affairs.

## Policy on Sexual Harassment

It is the policy of Eastern Michigan University to provide an educational, employment and business environment free of unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct or communications constituting sexual harassment, as defined and otherwise prohibited by state and federal statues.

## Prohibited Acts

No member of the University community shall engage in sexual harassment. Persons who engage in sexual harassment are subject to disciplinary action, up to and including dismissal for employees and/or suspension or dismissal for students. Sexual harassment is defined as unwelcome advances, requests for sexual favors or other behavior of a sexual nature when:

- Submission to such conduct is made explicitly or implicitly a term or condition of an individual's employment or status in a course, program or activity.
- Submission to, or rejection of, such conduct is used as a basis for a decision affecting an individual's employment or participation in a course, program or activity.
- Such conduct has the purpose or effect of unreasonably interfering with an individual's work or performance in a course, program or activity, or of creating an intimidating, hostile or offensive environment in which one engages in employment, a course, a program or an activity.


## Confidentiality

To the extent permitted by law, the confidentiality of each party involved in a sexual harassment investigation, complaint or charge will be observed, provided it does not interfere with the University's ability to investigate the allegations or take corrective action.

## Examples of Sexual Harassment

- Physical assault
- Threats or insinuations which cause the victim to believe that sexual submission or rejection will affect his/her reputation, education, employment, advancement, or any conditions which concern the victim's standing at the University.
- Direct propositions of a sexual nature
- Subtle pressure for sexual activity, an element of which may be conduct such as unwelcome sexual leering
- Conduct (not legitimately related to the subject matter of the work, course, program, or activity in which one is involved) intending to or having the effect of discomforting and/or humiliating a reasonable person at whom the conduct is directed. This may include, but is not limited to, comments of a sexual nature of sexually explicit statements, questions, jokes or anecdotes, and unnecessary touching, patting, hugging or brushing against a person's body. Depending upon the circumstances, any of the above types of conduct may be sexual harassment and subject to disciplinary action, even if that conduct only occurs once.


## Consensual Sexual Relationships:

## Professor and student:

The ideal professor demonstrates respect for students as individuals and serves as students' mentor, intellectual guide, and model of honest academic conduct. The professor acts to ensure academic evaluations of students that reflect each student's true merit. He or she respects the confidential nature of the relationship between professor and student and avoids all forms of exploitation, harassment, and discriminatory treatment of students.

Sexual relations (which includes contact of a sexual nature) or requests for sexual relations between students and faculty members with whom they also have a current instructional or evaluative relationship are fraught with the potential for exploitation and must be avoided, and are prohibited. The respect and trust accorded a professor by a student, as well as the power exercised by the professor in an instructional or evaluative role, make voluntary consent by the student suspect. In their relationships with students, members of the faculty are expected to be aware of their professional responsibilities and to avoid apparent or actual conflict of interest, favoritism, or bias.

## Seeking Assistance for Filing a Complaint

Students, faculty and staff who believe they are the victims of sexual harassment may seek information and assistance from the Office of Student Judicial Services (204 King Hall), Jennifer Schraze, director, 487.2157 - or the Diversity and Affirmative Action Office (11 Welch Hall), 487.1166. If the student, faculty member or staff member wishes to file a complaint, she/he may take the following action(s):

- If the alleged harasser is a staff or faculty member, the affected individual(s) may contact the Diversity and Affirmative Action Office (11 Welch Hall).
- If the alleged harasser is a student, the affected individual(s) may contact the Office of Student Judicial Services (204 King Hall).


## Note: EMU has the obligation to investigate all complaints of sexual harassment.

## Seeking Assistance Outside of the University

Persons who believe they are the victims of sexual harassment may also seek assistance from: Equal Employment Opportunity Commission, or the Michigan Department of Civil Rights.

## Awareness

Members of the University community are responsible for knowing and understanding the University's policy prohibiting sexual harassment. Students who do not understand the policy should contact the Office of Student Judicial Services at 487.2157 . Faculty and staff who do not understand the policy should contact their department head or director. Department heads or directors who need assistance in understanding, interpreting or applying the policy should contact the Diversity and Affirmative Action Office at 487.1166. Persons who make false allegations subject themselves to the possibility of disciplinary action.

## If you are Accused of Sexual Harassment

You will have an opportunity to hear and respond to the charges brought against you. All situations are treated as confidential matters to the extent permitted by law. Judgments are not made nor action taken until the investigation is complete. Employees represented by collective bargaining agents may enlist assistance from their union as necessary.

## Grade Grievance Procedure for the EMU Community

## The following is a summary of EMU's Grade Grievance Procedure.

## Procedure

The Grade Grievance Procedure provides each student with the opportunity to appeal formally a final grade in a course because he or she believes that the grade has been awarded capriciously or unfairly. Capricious or unfair grading may include but is not limited to the assignment of a course grade to a student: (1) on some basis other than relevant performance in the course; (2) by resorting to standards different from those which were applied to other students in that course; or (3) by an unreasonable and/or unannounced substantial departure from the instructor's previously articulated standards.

This procedure is not intended to handle disputes that may arise about the grading of individual exams or assignments during the semester. When such disputes arise, the student should contact the instructor immediately, rather than waiting until the end of the semester. Class action grievances by one student on behalf of several students or an entire class are not permitted.

## Timeline for the Grade Grievance Procedure

Step I
The student must contact the instructor within ten (10) working days after the start of the following semester: i.e., the semester following the one in which the disputed grade was given.

If the grade dispute is not resolved in Step I to the student's satisfaction and helshe still believes that the grievance has merit based on the facts of the case, the student may proceed to Step II.

## Step II

A written grievance must be filed within twenty (20) working days after the start of the next semester following the one in which the disputed grade was given.

Within ten (10) working days after the receipt of the written grievance, the department head must schedule a hearing before the Department/College Grievance Committee.

The Committee hearing shall be open unless the student or instructor requests a closed hearing. This request should be conveyed in writing to the department head prior to the hearing. After the hearing the committee will meet in executive session and will present its findings (in writing) to the department head within ten (10) working days.

The department head will forward the committee's written decision to the student and the instructor within five working days of this committee's decision/recommendation.

If the grade dispute is not resolved in Step II to the student's satisfaction and helshe still believes that the grievance has merit based on the facts of the case, the student may proceed to Step III.

## Step III

Either the instructor or the student grievant may submit a written appeal of the prior decision at Step II by the Department/College Grade Grievance Committee within ten (10) working days of written receipt of that decision, if at least one of three conditions is met:

1. The office of the Provost determines that there is evidence that established procedures for Step II were violated; or
2. There was at least one dissenting vote at the Step II level; or
3. New evidence or new witnesses not previously considered or heard at Step II become available.

Within twenty (20) working days of the receipt of the appeal, the University Grade Grievance Committee shall issue a written Step III decision to both the instructor and the student.

Students are encouraged to seek advice from the Student Government REACT office.

For more information on the Grade Grievance Policy see www.emich.edu/ public/aa/aapolicies/gradegriev.PDF or contact your department head.

## Class Attendance Policy Works for You

## Students:

Regular class attendance and active participation in classes are important elements in the learning process. Students are at the University primarily for the sake of their intellectual growth and development. Attendance and participation provide appropriate opportunities for the evaluation of the student's progress.

Each student is personally responsible for the satisfactory completion of the course work prescribed by his/her instructors. This means specifically that he/she is expected to attend classes regularly, and that he/she is responsible for the work assigned in class, the material covered in class and for participation in class activities (including discussion and listening) designed by the instructor as part of the learning experience. However, physical attendance shall not be the sole criterion for determining the student's course grade.

## Faculty:

Faculty members should notify their department heads when they are going to be absent from regularly scheduled classes. Written notification of circumstances causing prolonged absences should be sent to the dean of the college. Faculty members are expected to arrange, through their department head, for a qualified substitute when they are absent from class.

## Cancellation:

Classes may be cancelled by the Office of the President through the Office of the Provost. Off-campus classes are cancelled only by the dean of continuing education.

## Changes:

Faculty may not change the time or room of a class printed in the University class schedule unless the change is approved by the department head and the dean of the college.

## At the end of the semester:

Classes are taught through the last teaching day of the semester as indicated in the University calendar.

## Near Holidays:

Students are expected to attend all classes, and faculty members are not permitted to cancel classes or excuse students prior to any holiday.

## Student Involuntary Administrative Withdrawal

It is the policy of Eastern Michigan University to establish a Student Involuntary Administrative Withdrawal Policy for the purpose of maintaining a campus environment that is conducive to learning, protects the University's educational purposes, maintains reasonable order on campus, and protects the rights and safety of all members of the University community. The University may order the involuntary withdrawal of a student from the University or from University Housing in accordance with University as described in the full text of this policy.

## Standards for Withdrawal

In accordance with University policy, and applicable federal and state laws prohibiting discrimination based on disability, a student may be involuntarily withdrawn from the University and/or University Housing, either temporarily or permanently, if it is determined that a student suffers from a mental disorder as defined by the current American Psychiatric Association Diagnostic and Statistical Manual, and as a result of the disorder.

- Engages, or threatens to engage, in behavior which poses a danger of causing physical harm to self or to others, and/or
- Engages, or threatens to engage, in behavior which would cause significant property damage, which directly and substantially impedes the lawful activities of other members of the University, and/or
- Demonstrates an inability to satisfy personal needs (e.g. nourishment, shelter) such that there is a reasonable possibility that serious physical harm or death might occur within a short period of time, and/or
- Commits a violation of the University's Student Conduct Code and lacks the capacity to comprehend and participate in the University's disciplinary process, and/or
- Commits a violation of the University's Student Conduct Code and did not understand the nature of wrongfulness of the conduct at the time of the offense.

The full Student Involuntary Administrative Withdrawal Policy, including procedures, is available at the Student Judicial Services Web site: http: //www.emich.edu/sjs. For more information, visit Student Judicial Services in 204 King Hall, or by phone at 734.487.2157.

## Student Conduct Code and University Disciplinary Process

## Section 1: Purpose

In support of the overall goals of Eastern Michigan University, the purpose of the Student Conduct Code, administered by the Office of Student Judicial Services, is to maintain a campus environment that is conducive to learning, protects the university's educational purposes, maintains reasonable order on campus, and protects the rights of all members of the University community. The Student Conduct Code and the accompanying student disciplinary processes are intended to foster ethical development, personal accountability and civility toward others.

The Code embraces several core philosophies: preservation of the rights of free speech and peaceable assembly; respect for freedom of inquiry and constructive criticism; a conviction that honesty and integrity are key values to the University community; and the belief that all members of the University should be part of a campus environment that respects differences of culture, gender, religion, race, age, lifestyle or ability.

## Section II: Responsibility for Implementation

The President, as Chief Executive Officer of the University, has overall responsibility for implementation of the Student Conduct Code and the student disciplinary process and has delegated its overall management to the Vice President for Student Affairs and the Director of Student Judicial Services. The Student Judicial Services office is directly responsible for the daily administration of the University's student judicial system.

## Section III: Jurisdiction

The University will have jurisdiction over misconduct that occurs on University premises and/or at University-sponsored activities but may also address off-campus behavior if the University determines that the behavior, or the continued presence of the student, impairs, obstructs, interferes with or adversely affects the mission, processes or functions of the University.

A student committing a criminal offense, off-campus that is also a violation of the Student Conduct Code may be subject to University discipline.

The University may pursue disciplinary action against a student at the same time the student is facing criminal charges for the same offense, even if the criminal prosecution is pending, has been dismissed or the charges have been reduced.

## Section IV: Definitions

A. For purposes of the Student Conduct Code only, the following definitions apply:

1. Faculty Member means any person hired by the University to conduct classes.
2. Institution or University means Eastern Michigan University.
3. Member of the University Community includes any person who is a student, faculty member, University official or any other person employed by the University.
4. Student includes all persons enrolled for courses through or at EMU, both full-time and part-time, and those who attend educational institutions other than EMU but who reside in EMU residence halls. Persons who are not officially enrolled for a particular term but whose EMU record indicates a continuing relationship with the University are considered "students". Persons who have been accepted into EMU but have not yet enrolled for courses are considered "students".
5. Student Group means a number of students who are associated with each other and have not complied with University requirements for registration as an organization.
6. Student in Good Standing means a student who is in good academic standing and who is not presently under any University disciplinary sanctions.
7. Student Organization means a number of students who have complied with University requirements for registration and/or recognition.
8. University Premises includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the University.
9. University Sponsored Activity means any activity on or off campus, which is initiated, aided, authorized or supervised by the University.

## Section V: Violations

The following behavior is subject to disciplinary action under this Code. An individual, a group of individuals or a student organization may be charged with any of the violations. In cases where a violation is committed by an individual member of a student organization, the entire organization may be held responsible, in addition to the individual member, when those members not directly involved participate in the activity by encouraging, witnessing or condoning the act in any manner.

## A. Academic Dishonesty

Engaging in academic dishonesty in any form with respect to examinations, course assignments, research projects, grades, and/or academic records, including, but not limited to the following:

1. Cheating - using or attempting to use unauthorized materials, information or study aids in any academic assignment. Examples of cheating are: looking on someone else's paper; using any kind of "cheat" sheet or other enhancement during a test; allowing someone else to take an exam in your place; submitting the same work more than once for credit; using someone else's homework or lab assignments; collaborating with another student on any assignment or takehome test if told that collaboration was not allowed; assisting another student in committing an act of academic dishonesty by allowing another student to copy homework or an exam; taking an exam for someone else; or giving test information to students in other sections of the same class.
2. Falsification - intentional and unauthorized falsification or invention of any information or citation in an academic assignment. Examples of falsification are: making up data on an assignment; making up a source to cite in a paper; altering then resubmitting returned academic work; giving false information to a faculty or staff member to increase one's grade; or attempting to change, actually changing, altering grades or any other unauthorized tampering with grades.
3. Plagiarism - deliberate and knowing use of someone else's work or ideas as one's own. Examples of plagiarism are: quoting a source verbatim, or paraphrasing text from a given source, without properly citing the source; turning in a research paper that was written by someone else; or in any other way passing off someone else's work as one's own; or failing to give credit for ideas or materials taken from someone else.

## B. Alcohol Violations

1. Possession or consumption of alcoholic beverages by persons under the legal drinking age as defined by Michigan law.
2. Dispensing, selling or supplying alcoholic beverages to a person under the legal drinking age as defined by Michigan law.
3. Possession or consumption of alcoholic beverages in violation of federal, state and local laws.

Notes:

1. Transportation in sealed containers to and from an authorized area or place is permissible if the person in possession is of legal age to possess alcoholic beverages as allowed by Michigan law.
2. Use of alcohol and controlled substances by Greek Organizations is covered under Student Conduct Code Section XI: Special Provisions Governing the University Recognition and Conduct of Greek Letter Social Organizations". Those provisions should be used to address alcohol violations committed by a Greek organization.

## C. Computer Misuse

1. Unauthorized access, entry or use of a computer, computer system, network, software, password, account or data.
2. Unauthorized alteration or tampering with computer equipment, software, network, or data.
3. Unauthorized copying or distribution of computer software or data.
4. Use of computing facilities or equipment to send obscene, harassing or abusive messages.
5. Use of computers to falsify records, tamper with records or commit any act of academic dishonesty.
6. Any other act in violation of law and/or University policies and guidelines regulating computer-related use.

## D. Discrimination by Student Organizations

Selecting its membership upon the basis of restrictive clauses involving race, religion, color, national origin, gender, age, sexual orientation or disability unless any given student organization's membership restriction is shown to be specifically allowed by law.

## E. Disruptive Conduct

1. Actions that impair, interfere with, or obstruct the normal operations of the University and/or interfere with the rights of other members of the University community or visitors. This includes intentional occupation of or blocking the entry or exit of University facilities, including but not limited to, buildings, classrooms, offices, hallways, entryways, conference rooms and campus grounds.
2. Actions that impair, interfere with, or obstruct the orderly conduct, processes and functions within any classroom or other instructional setting. This includes interfering with a faculty member's or instructor's role to carry out the normal academic or educational functions of his/her class.
3. Participating in, leading or inciting others to disrupt scheduled and/or normal campus activities, events and programs.
4. Intentional obstruction of the free flow of pedestrian or vehicular traffic on University premises or at University sponsored or supervised functions.
5. Disturbance of any member of the University community or visitor.
6. Solicitation on campus without prior approval from appropriate University officials. This includes, but is not limited to, the disbursement of any forms of promotional/informational material on University property or on items (e.g. motor vehicles) on University property, requests for donations, or the selling or vending of any merchandise or services.

## F. Drugs

1. Possession or use of narcotics, prescription drugs or other controlled substances in violation of local, state or federal drug or narcotic laws.
2. Distribution, delivery or sale of narcotics, prescription drugs or other controlled substances in violation of local, state or federal drug or narcotic laws.
3. Possession or use of drug paraphernalia.

## G. Failure to Comply

1. Failure to comply with a lawful order of a University official, including a campus police officer, in the performance of his/her duty.
2. Failure to comply with the sanctions rendered during the student judicial process.
3. Failure to comply with a request to be interviewed by a University judicial officer during the investigation of a conduct code violation. (Students may choose not to appear and present testimony at a student judicial proceeding after meeting with the judicial officer.)

## H. Falsification/Fraud/False Testimony

1. Furnishing false information to the University, including false reporting of emergencies, knowingly making false accusations or giving false testimony during the disciplinary process.
2. Misuse, reproduction, alteration or forgery of any University related documents, records, identification, keys, access codes or property.
3. Providing a worthless check or money order in payment to the University or to a member of the university community.

## I. Fire and Safety

1. Damage to, removal of or tampering with any fire safety systems, firefighting equipment or other emergency warning equipment.
2. Intentional or reckless burning or setting fire to any building or piece of property owned or controlled by the University.

## J. Gambling

Gambling or participation in games of chance on campus for money or other things of value except as provided by law.

## K. Guests

Students are responsible for informing their guests about campus regulations and may be held accountable for the behavior of their guests.

## L. Harassment/Stalking

1. Conduct (not of a sexual nature) that creates an intimidating, hostile, or offensive campus, educational or work environment for another person or group.
2. Conduct (not of a sexual nature) that threatens, intimidates, humiliates, or otherwise harms another person or group.
3. Stalking, defined as following or otherwise contacting, via any means, another person repeatedly for no legitimate purpose, so as to put that person in fear for his/her life or personal safety, or to cause that person substantial emotional distress. Stalking includes:
a. Repeatedly following or harassing another person.
b. Contacting a person after being asked or ordered not to contact the person.
c. Violating any provision of the Michigan Stalking Law.

## M. Hazing

1. Any action or activity committed by either active members, associate members or pledges of an organization which inflicts or intends to cause physical or mental harm or anxieties; which may demean, degrade, or disgrace any person, regardless of location, intent or consent of participants. Hazing includes, but is not limited to:
a. Interference with a student's academic or work performance.
b. Forced consumption of any food, alcohol, other drugs, or any other substance.
c. Forced physical activity.
d. Deprivation of food or sleep.
e. Physical acts such as branding and paddling
f. Requiring participation in any activity that violates University policies or any local, state or federal law.
g. Other violations as outlined in the Interfraternity Council, Panhellenic Council or National Pan-Hellenic Council Constitutions.
2. Any action or situation, which intentionally or unintentionally endangers a student who is attempting admission into or affiliation with any student organization.

Notes:

1. In cases where the activity is performed by an individual member of a student organization, the total organization may be held responsible, when those members not directly involved participate in said activity by encouraging, witnessing, or condoning the act in any manner.
2. Any individual andlor organization found guilty of hazing will be subject to a minimum penalty of suspension.

## N. Physical Abuse and Endangerment

1. Physical violence or attempted physical violence toward another person or group.
2. Threat of physical violence against another person or group.
3. Any action that endangers the health, safety or welfare of a person or group.
4. Attempt to harm, or actual harm to, oneself.

## O. Property/Facilities/Services

1. Theft of University property or property of a member of the University or visitor.
2. Damage, destruction, or defacement of University property or property of a member of the University or visitor, including littering.
3. Wrongful appropriation of University property or property of a member of the University or visitor.
4. Public posting, selling of, or in any other way, distribution of notes of class lectures, course handouts and outlines, and/or any other University-supplied materials without the express written permission of the instructor.
5. Unauthorized possession and/or use of University property or property of a member of the University or visitor, including knowingly being in possession of stolen goods. This includes unauthorized use of vehicles, equipment, services, the University name and logo.
6. Unauthorized entry into University facilities, including but not limited to buildings, classrooms, hallways, entryways, conference rooms, and campus grounds.
7. Bringing animals and/or pets into University buildings, except where properly authorized. Use or operation of rollerblades, skates, skateboards, bicycles, and similar items inside University facilities, unless expressly permitted.
8. Violation of any policy or guidelines pertaining to specific usage of a University facility.

## P. Sexual Misconduct/Sexual Harassment

1. Any sexual act that occurs without the consent of the other person or occurs when the other person is unable to give consent.
2. Conduct of a sexual nature that creates an intimidating, hostile or offensive campus, educational or working environment for another person. This includes unwelcome sexual advances or requests for sexual favors, inappropriate sexual or gender-based activities, comments or gestures, or other forms of verbal or physical conduct or communications constituting sexual harassment.
3. Obscene or indecent behavior, which includes, but is not limited to, indecent exposure or the display of sexual behavior that would reasonably be offensive to others.

## Q. Weapons/Firearms/Explosives

1. Possession, storage or use of firearms and other weapons, including non-lethal weapons such as pellet guns and paintball guns.
2. Possession, storage or use of firecrackers, gunpowder, ammunition, explosives or incendiary devices, or other articles or substances which could endanger health or safety.

## R. Other Violations

1. Violation of any other published or posted University regulations not specifically mentioned in this Section, including, but not limited to, the EMU Policy Manual(s); EMU'S Alcohol and Other Drug Policy; Residence Hall Contract and the Guide to Campus Living; Campus Life Council regulations and guidelines for organizations; Student Government monetary allocation guidelines; EMU published undergraduate and graduate catalogs; EMU'S Athletics Alcohol and Other Drug Education and Testing Policy; and ORD Research Guidelines.
2. Aiding and abetting another in any violation of laws and/or University policies.
3. Attempt or intent to commit any violation outlined in the Student Conduct Code.
4. Off-Campus Conduct as described in the Student Conduct Code, Section III: Jurisdiction.

## Section VI: Sanctions for Misconduct

The purpose of University discipline is to be corrective and educational as well as punitive. The disciplinary experience is intended to make clear to students the limits of acceptable behavior and to give students who violate the rules an opportunity to more fully understand the rules and incorporate the experience into his/her overall development. Assigned discipline may include a combination of sanctions for a particular incident. The sanctions which may be incurred include, but are not limited to, the following:

## A. Sanctions for Students and/or Student Groups

1. Verbal Warning: Notice that continuation or repetition of prohibited conduct may be cause for additional disciplinary action.
2. Formal Reprimand: An official written statement of the University's disapproval of a student's actions and a warning that any future violation(s) will be dealt with more severely.
3. Disciplinary Probation: An official notice that the student's conduct is in violation of the Student Conduct Code but does not warrant suspension or permanent dismissal. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student commits another conduct code violation during the probationary period. During the Probation period, a student will be considered "not in good standing" and may be excluded from some programs and curricular or extra-curricular activities, including running for and/or holding office in any student organization.
4. Suspension: An involuntary separation of the student from the University for a definite period of time and/or until certain conditions for readmission are met. The student is not guaranteed readmission at the end of such period of time, but is guaranteed a review of the case and a decision regarding eligibility for readmission. (Suspension requires administrative review and approval by the President or his/ her designee.)
5. Deferred Suspension: The sanction of Suspension may be placed in deferred status provided that the student completes other assigned sanctions by the specified deadline dates. Failure to complete all sanctions and provide proof of completion by the deadline date(s) will result in the automatic enactment of the suspension without charges or hearing. If a student is found responsible for another violation of the Student Conduct Code during the period of deferred suspension, the student may be permanently dismissed from the University.
6. Permanent Dismissal: An involuntary permanent separation from the University. (Permanent dismissal requires administrative review and approval by the President or his/her designee.)
7. Delay and/or Denial of Degree Award: During the period disciplinary charges are pending against a student, the University may deny and/or delay issuance of a degree. Further, the University may refuse to issue a degree to a student who is serving a suspension or has been permanently dismissed from the University.
8. Revocation of degree: An awarded degree may be revoked for violations of the Student Conduct Code, which occur prior to the award of the degree but are discovered after the degree has been awarded, where the violation is sufficient to justify the suspension or permanent dismissal of the student. (Revocation of a degree requires administrative review and approval by the President or his/her designee.)
9. Other Secondary Sanctions may be imposed instead of or in addition to those specified above. Secondary sanctions include, but are not limited to:
a. Restitution (compensation for loss, damage or injury)
b. Fines (for alcohol or drug violations) First Offense = \$100; Second Offense $=\$ 200$; Third Offense $=\$ 300$
c. Community Service
d. Educational activities such as a reflective writing assignment or attendance at an event directly related to the violation committed. (e.g. alcohol/drug workshop; diversity awareness training)
e. Restrictions (temporary or permanent loss of privileges or the use of a University facility or service)

## B. Sanctions for Student Organizations

1. Verbal Warning: Notice that continuation or repetition of prohibited conduct may be cause for additional disciplinary action.
2. Formal Reprimand: An official written statement of the University's disapproval of a student organization's actions and a warning that any future violation(s) will be dealt with more severely.
3. Disciplinary Probation: An official notice that the student organization's conduct is in violation of the Student Conduct Code but does not warrant suspension of or permanent termination of the organization's University status. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student organization commits another conduct code violation during the probationary period. During the Probationary period, a student organization may also be excluded from campus activities, forfeit student monetary allocations, and lose Campus Life status.
4. Suspension: An involuntary withdrawal of student organization status from the University for a definite period of time and/or until certain conditions for renewal of recognition are met. During this time, the University will not in any way recognize nor support the continued operation of said student organization. The Student organization must re-apply to the University for renewed recognition following any period of suspension. The suspension shall be reported to said organization's national office, if applicable. (Suspension requires administrative review and approval by the President or his/her official designee.)
5. Deferred Suspension: The sanction of Suspension may be placed in deferred status provided that the student organization completes other assigned sanctions by the specified deadline dates. Failure to complete all sanctions and provide proof of completion by the deadline date(s) will result in the automatic enactment of the suspension without charges or hearing. If a student organization is found responsible for another violation of the Student Conduct Code during the period of deferred suspension, the student organization may have its University status permanently terminated.
6. Permanent Termination of University Status: An involuntary permanent withdrawal of student organization status from the University. The University will not in any way recognize nor support the continued operation of said student organization. The permanent
termination shall be reported to said organization's national office, if applicable. (Permanent termination requires administrative review and approval by the President or his/her official designee.)
7. Other Secondary Sanctions may be imposed instead of or in addition to those specified above. Secondary sanctions include, but are not limited to:
a. Restitution (compensation for loss, damage or injury)
b. Fines (for alcohol or drug violations) First Offense $=\$ 300$; Second Offense $=\$ 400$; Third Offense $=\$ 500$
c. Community Service
d. Educational activities such as a reflective writing assignment or attendance at an event directly related to the violation committed. (e.g. alcohol/drug workshop, diversity awareness training)
e. Restrictions (temporary or permanent loss of privileges or the use of a University facility or service)

## C. Enhanced Sanctions

Any violation of the Student Conduct Code against any individual, group or student organization which is shown to be motivated by the individual's, group's or student organization's racial identity, religion or religious beliefs, disability, national origin, gender, sexual orientation or other personal characteristic will subject a student/student organization to a more severe sanction than would ordinarily accompany that violation.

## D. Counseling Assessments and Counseling

In addition to any sanctions assigned, a student may also be required to undergo a counseling assessment and/or participate in counseling. Issuance of sanctions may be postponed pending the results of the counseling assessment.

## Section VII: Organization of the University Judicial System

## A. University Judicial Board

1. Composition - The University Judicial Board will consist of five (5) enrolled students and two (2) alternates; two (2) full-time faculty members and one (1) alternate; and two (2) full-time members of the University community and one (1) alternate. A student member must be a student in good standing in order to be selected for and remain on the University Judicial Board.
2. Selection of board members - In consultation with the Director of Student Judicial Services, student members will be appointed by the Student Government; faculty members will be selected by Faculty Council; and the full-time members from the University community will be selected by the President or his/her designee.
3. Terms of Office - Board members will be appointed for a two-year term. They may be reappointed by the person or body who appointed them. A Chief Justice will be elected by a majority vote of all of the University Judicial Board members.
4. Removal from office - A board member may be removed from the board for poor attendance by a simple majority vote of the total University Judicial Board.
5. Jurisdiction - The University Judicial Board will serve as the panel to hear the case of any student(s)/student organization seeking resolution of the case through the formal hearing process.
6. Procedural Considerations
a. Selection of the University Judicial Board members for any given case depends on the availability of the members at the time scheduled for the hearing.
b. A quorum for a given hearing will exist with the presence of any five (5) members. During vacation periods or summer session, the University Judicial Board has the authority to convene a
disciplinary hearing with only three (3) justices, provided that at least one of those justices is a student.
c. The Chief Justice will exercise control over the proceedings.

## B. Judicial Appeals Board

1. Composition - The Judicial Appeals Board will consist of two (2) enrolled students; two (2) full-time faculty members; and two (2) fulltime members of the University community. A student member must be a student in good standing in order to be selected for and remain on the Judicial Appeals Board.
2. Selection of board members - In consultation with the Director of Student Judicial Services, student members will be appointed by the Student Government; faculty members will be selected by Faculty Council; and the full-time members from the University community will be selected by the President or his/her designee.
3. Terms of Office - Board members will be appointed for a three-year term. They may be reappointed by the person or body who appointed them. A Chief Justice will be elected by a majority vote of all of the Judicial Appeals Board members.
4. Removal from office - A board member who is consistently unavailable for appellate reviews may be removed from the board by a simple majority vote of the total Judicial Appeals Board.
5. Jurisdiction - The Judicial Appeals Board will serve as the panel to review decisions rendered by the University Judicial Board during the formal hearing process. Both the charged party and the University will have the right to appeal a University Judicial Board decision.
6. Procedural Considerations
a. Selection of the Judicial Appeals Board members for any given case depends on the availability of the members at the time scheduled for the appeal.
b. A quorum will exist with the presence of the Chief Justice and any two (2) other Judicial Appeals Board members, except that any three (3) Judicial Appeals Board members may hear the appeal if the Chief Justice can not be available within a reasonable time, not to exceed fourteen (14) work days from the date of receipt of the written appeal.

## Section VIII: Rights of Charged Student(s)/Student Organizations in Disciplinary Proceedings

The following rights apply to a student conduct proceeding that has reached the level of a formal hearing, EXCEPT that Rights One (1) through Four (4) apply also to any investigative meeting held with Student Judicial Services and to the Informal Disposition Conference. Student(s)/student organizations will have the right to:

1. Remain silent and not have that silence used against them.
2. Have a voluntary advisor present who may participate in the proceedings. The adviser must be a member of the university community, and if the advisor is another EMU student, she/he must be a student in good standing.
3. Engage an attorney, at the student/student organization's own expense only when criminal prosecution is pending on charges stemming from the same incident. The attorney may appear at the proceedings with the student(s) to provide advice, but may not represent the student(s)/ student organization, directly question or cross-examine witnesses, or, in any other way, participate in the proceedings.
4. Be given a written statement of the charges against them, in accordance with the provisions of Section IX.B. of the Student Conduct Code.
5. Adequate notice of dates set for all hearings, and related conferences and meetings.
6. Reasonable review of the disciplinary case file maintained by Student Judicial Services prior to a formal hearing and/or appeal.
7. Question and cross-examine the complainant and all witnesses.
8. Present witnesses and submit any pertinent, supportive documentation. The hearing board, by a $2 / 3$ vote of members present at the hearing, may limit the number of witnesses in order to avoid dilatory tactics.
9. An open or closed hearing. A hearing will be considered open if no person is excluded until the room's capacity has been reached EXCEPT that a person may be removed if his/her behavior is disruptive to the hearing process. A closed hearing will include only the charged student(s)/student organization, Student Judicial Services official(s), witnesses, and members of the particular judicial board hearing the case.
10. Challenge a judicial board member on the grounds of bias, conflict of interest or any other factor that could preclude the board member from rendering an impartial and fair decision. The board member may be disqualified upon majority vote of the remaining members of the board present at the hearing, conducted by secret ballot. If the board votes to exclude the challenged board member from that particular hearing, the hearing will continue with the remaining board members present, even if the number of board members remaining is less than the number required by the Student Conduct Code to reach a quorum for that hearing.
11. A written statement of the outcome of the proceeding, and a description of the appeal procedure.
12. Make a taped recording of the proceeding at their own expense.
13. Appeal the decision of the university judicial board, subject to the provisions of the Student Conduct Code, Section IX.E: Appeal of Formal Hearing Results.

## Section IX: University Disciplinary Procedures

## A. Reporting

Any member of the university community may initiate a complaint against a student or student organization for an alleged violation of the Student Conduct Code through the Student Judicial Services office. A complainant shall submit the complaint to the Student Judicial Services office within a reasonable amount of time from the date he/she becomes aware of the alleged violation. For purposes of this Code, an incident report generated by the Department of Public Safety or an incident report generated by University Housing will be considered a complaint to be reviewed by Student Judicial Services for possible Student Conduct Code violations.

## B. Charges and Notice

1. Student Judicial Services will investigate each complaint, and if the circumstances surrounding the complaint indicate that a violation of the Student Conduct Code may have occurred, disciplinary charges may be issued. The student(s)/student organization will be notified of the charges in writing. Notice of the charges will be considered adequate if it is sent to the student $(\mathrm{s}) /$ student organization's last known address registered with the University OR to the address given by a student on either an EMU Department of Public Safety's Incident Report or on a Housing Incident Report.
2. Proper written notice to a student/student organization will include the following:
a. Recitation of facts surrounding the incident, in as sufficient detail as possible as to date, time, and location;
b. Statement of the specific conduct code provision(s) violated;
c. Any penalty assigned or other action taken;
d. Amount of time in which the student(s)/student organization has to respond to the notice;
e. Ramifications of not responding to the notice within the time limit; and

## f. Copy of "Rights of Charged Students/Student Organizations in Disciplinary Proceedings".

3. Student Judicial Services may place a judicial hold on a student's academic record, and/or may go forward with disciplinary action against a student/student organization in either of the following situations:
a. The student or student organization fails to respond to a charge letter sent by Student Judicial Services within the applicable time limit.
b. The student withdraws from the University after allegedly committing a violation, whether or not Student Judicial Services has yet had the opportunity to charge the student with a conduct code violation.
c. The student/student organization fails to appear at his/her scheduled formal hearing or appeal hearing.

## C. Disposition of Cases

A disciplinary case may be handled in one of the following two formats:

1. Informal Disposition Conference - The student(s)/student organization representative and a Student Judicial Services judicial officer will meet informally to discuss the alleged violation(s). If the substantive facts and sanction(s) can be agreed upon by the judicial officer and the charged student(s), a disciplinary action agreement will be prepared and signed by both sides. A signed disciplinary action agreement will constitute a waiver of the right to a formal hearing and any appeal, and an acceptance of the finding(s) and sanction(s). The President or his/her designee must approve any suspension, permanent dismissal or permanent termination of a student organization's university status.
2. Formal Hearing - If, during the informal disposition conference, the student(s)/student organization disputes the findings by Student Judicial Services that a violation has occurred or if an appropriate sanction(s) cannot be agreed upon, the case will be referred to the University Judicial Board for a formal hearing.

## D. Procedures for Formal Hearings

1. Notice of Hearing - After the formal hearing is scheduled, Student Judicial Services will notify the student(s)/student organization involved of the date, time and place of the hearing and of the preconference.
2. Pre-conference - At least two (2) days prior to the formal hearing, a pre-hearing conference will be scheduled by Student Judicial Services for any charged student(s)/student organization. The two (2) day requirement may be modified by mutual consent of the charged student(s)/student organization and Student Judicial Services. The conference will include the presiding officer of the University Judicial Board or a designee, the Director of Student Judicial Services or a designee, any individual designated to represent the University, and the charged student(s)/student organization and their advisor.

The purpose of the pre-hearing conference will be to identify those issues and facts which will be presented at the hearing, to exchange information as to witnesses likely to be called, to answer procedural questions, and to settle those matters which may be agreeably concluded. The conference will not be used to settle the issue of whether or not the violation was committed or to challenge any recommended sanctions. Failure of the charged student(s)/student organization or the advisor to appear will in no way affect any of their procedural rights and will not prohibit a hearing from being set and being held.
3. Formal Hearing Premises - The following premises will govern any formal hearing:
a. The focus of inquiry in a University hearing will be the determination of whether a violation of University rules occurred, and such decision will be totally unrelated to any criminal or civil decisions against the student(s)/student organization arising from the same incident.
b. Formal rules of evidence will not apply to University proceedings, nor will deviations from these prescribed procedures necessarily invalidate a decision or proceeding unless significant prejudice to the charged student(s)/student organization or the University may result.
c. The charged student $(\mathrm{s}) /$ student organization will be presumed to have not violated the Student Conduct Code until it is proven otherwise.
d. The burden of proof during a formal hearing will rest with the University. The University must prove its case by a preponderance of the evidence, meaning that the evidence, considered in its entirety, indicates that, more likely than not, the charged student(s)/student organization committed the violation(s).
e. The Student Judicial Services officer may recommend a sanction to the University Judicial Board during the formal hearing, but the University Judicial Board will have the authority to reject the recommendation and issue any sanction(s) deemed appropriate.
f. All formal hearings will be tape-recorded. Tapes will remain the property of the University and will serve as the official record of the proceedings.
4. Disposition of the Case
a. University Judicial Board decisions as to culpability of the charged student(s)/student organization and sanctions to be issued will be made by a simple majority of the University Judicial Board members present at the hearing. After hearing the case, board members will go into closed session to reach a decision.
b. Decisions of the University Judicial Board will be in writing. The decision will state what rule was violated, the behavior constituting the violation, and any sanctions issued. Within two (2) working days, the written decision will be submitted to the Director of Student Judicial Services. If the recommended sanction is not a suspension permanent dismissal of the student or permanent termination of University status, the Director of Student Judicial Services will mail the decision to the student(s)/ student organization within two (2) working days after being submitted to that office by the University Judicial Board.
c. If the recommended sanction is either a suspension, permanent dismissal or permanent termination of University Status, the Director of Student Judicial Services will submit the decision to the President or his/her designee for review. The President or his/her designee will either accept or reject the University Judicial Board's decision to suspend, permanently dismiss the student, or permanently terminate the University status of a student organization. If the decision is rejected, the President or his/her designee will provide to Student Judicial Services a written rationale for the rejection of the University Judicial Board's sanction. A rejection of the University Judicial Board's sanction will constitute an automatic appeal to the Judicial Appeals Board.
d. The President or his/her designee will have five (5) working days after submission of the University Judicial Board's decision to take action. If no action is taken during that time, the University Judicial Board's decision will be considered approved.
e. Student Judicial Services will mail the written decision to the student(s)/student organization within one (1) working day following any presidential action. If the five (5) working days lapse without the President or his/her designee taking action, Student Judicial Services will mail the University Judicial Board's written decision to the student(s)/student organization on the sixth (6) working day following the submission of the decision to the President or his/her designee for review.

## E. Appeal of Formal Hearing Results

1. Right to Appeal - Student(s)/student organizations or the University (represented by Student Judicial Services) may request that the University's Judicial Appeals Board review the decision rendered at the conclusion of the formal hearing process. Student $(s) /$ student organization(s) may challenge the finding of the University Judicial Board that a violation occurred and/or the sanction(s) assigned. Conversely, the University may challenge the finding of the Board that no violation occurred or that the sanction(s) issued were not severe enough for the violation committed.
2. Appeal Process for Student(s)/Student Organizations - The following steps should be followed by student(s)/student organizations in order to file an appeal:
a. A written request for an appeal must be submitted to Student Judicial Services within seven (7) working days from the date of the written decision from the formal hearing. The appeal will be immediately forwarded to the Judicial Appeals Board for consideration. Unless extenuating circumstances can be shown, failure to appeal within the allotted time will render the University Judicial Board's decision final.
b. The written request for an appeal must state the grounds for appeal (citing the appropriate grounds from the "Grounds for Appeal" list below); a discussion of the evidence and facts in support of the appeal; and a recommended solution.
c. The request for an appeal must be typed and should include any supporting documentation that should be considered by the Judicial Appeals Board.
d. Grounds for Appeal - The following will be considered the only grounds for an appeal:
1) There were procedural errors in the case or in the interpretation of University rules and regulations serious enough to deny the student(s)/student organization a fair hearing.
2) There is new evidence of a substantive nature not previously available at the time of the hearing, which would have materially affected the decision.
3) The severity of the sanction is disproportionate to the violation(s) committed.
4) The decision of the Board was not supported by the evidence presented at the hearing.
3. Appeal Process for the University - The following steps should be followed by the University in order to file an appeal:
a. A written request for an appeal must be submitted by Student Judicial Services to the Judicial Appeals Board within seven (7) working days from the date of the written decision from the formal hearing. A copy of the appeal will also be made available to the student(s)/student organization. Unless extenuating circumstances can be shown, failure to appeal within the allotted time will render the University Judicial Board's decision final and conclusive.
b. The written request for an appeal must state the grounds for appeal (citing the appropriate grounds from the "Grounds for Appeal" list below); a discussion of the evidence and facts in support of the appeal; and a recommended solution.
c. The request for an appeal must be typed and should include any supporting documentation that should be considered by the Judicial Appeals Board.
d. Grounds for Appeal - The following will be considered the only grounds for an appeal:
1) There were procedural errors in the case or in the interpretation of University rules and regulations serious enough to affect the University's chance of proving its case.
2) The sanction is too lenient given the violation(s) committed.
3) There is new evidence of a substantive nature not previously available at the time of the hearing, which would have materially affected the decision.
4) The decision of the Board was not supported by the evidence presented at the hearing.
4. Scheduling an Appeal
a. The Judicial Appeals Board will convene an appeal hearing as soon as possible after receiving the written appeal. A quorum will exist with the presence of the Chief Justice and any two other board members, EXCEPT that any three board members may handle the appeal if the Chief Justice cannot be available within a reasonable time, not to exceed fourteen (14) calendar days from the receipt of the written appeal.
b. After the appeal is scheduled, Student Judicial Services will notify the student $(\mathrm{s}) /$ student organization involved of the date, time and place of the hearing.
5. Appeal Hearing Premises - The following premises will govern any appeal hearing:
a. Deviations from these prescribed procedures will not necessarily invalidate a decision or proceeding unless significant prejudice to the charged student(s)/student organization or the University may result.
b. On appeal, the burden of proof rests with the appellant to clearly exhibit that one of the four grounds for an appeal has been met; this is not a re-hearing of the entire case.
c. All appeal hearings will be tape-recorded. Tapes will remain the property of the University and will serve as the official record of the proceedings.
d. Any sanction(s) issued by the University Judicial Board will not take effect until the appeal process is completed.
6. Disposition of the Appeal
a. Prior to the appeal hearing, the Judicial Appeals Board will meet in closed session to review the written decision of the University Judicial Board, the written appeal, any supporting documentation provided by the Appellant, and the tape recording of the formal hearing.
b. After reviewing the case materials, the Judicial Appeals Board will convene the Appeal Hearing and call in both parties to the appeal. The student(s)/student organization may bring an adviser to the Hearing who may speak on their behalf. The adviser must be a member of the University community, and if the advisor is a student, he/she must a student in good standing.
c. The party who filed the appeal will be allowed fifteen (15) minutes to present his/her case to the Judicial Appeals Board. The Board members may then ask questions of the appellant. The opposing side will then be given fifteen (15) minutes to present its counter-arguments, after which the Board members can ask questions of that party.
d. The Judicial Appeals Board will again go into closed session to reach a decision in the case, then reconvene the hearing and read its decision. The decision will be made by a simple majority of the Judicial Appeals Board members present at the hearing.
e. The Judicial Appeals Board may take one of the following actions:
1) Uphold the decision of the University Judicial Board in its entirety.
2) Alter the sanctions imposed by the University Judicial Board EXCEPT that the Board can not increase the severity of the sanctions if the appeal was filed by the student(s)/ student organizations.
3) Send the case back to the University Judicial Board for a new hearing only if there were errors in procedures or interpretation of University rules and regulations or there is new evidence in the case. A decision issued by the University Judicial Board in a case sent back to it by the University Appeals Board may not be appealed again and will be the final decision, pending approval by the President or his designee in accordance with sub-section $f$ below.
4) Dismiss the case against the student(s)/student organization.
f. In cases where the Judicial Appeals Board, or the University Judicial Board upon a re-hearing of the case, issues a suspension, permanent dismissal of the student or permanent termination of University status of a student organization, the decision will be sent to the President or his/her designee for review. The President or his/her designee will have five (5) working days after submission of the decision to either affirm or alter the decision. This decision will be final. If no action is taken during that time, the appellate decision, or the decision from a re-hearing will be considered approved.
g. Student Judicial Services will mail the written decision to the student(s)/student organization within one (1) working day following any presidential action. If the five (5) working days lapse without the President or his/her designee taking action, Student Judicial Services will mail the written decision to the student(s)/student organization on the sixth (6) working day following the submission of the decision to the President or his/her designee for review.

## Section X: Special Disciplinary Provisions Governing Acts of Academic Dishonesty

A. Academic dishonesty is both an academic matter between a student and his/her faculty member and a violation under the Student Conduct Code subject to University disciplinary action. An act of academic dishonesty may and should be handled by the faculty member, the student, and, if appropriate, the faculty member's department head and/or the dean over that particular academic department. Sanctions that can be assigned by a faculty member range from giving a reduced grade on the particular work in question to failing the student for the entire course. In addition, some academic departments and programs have their own policies for dealing with academic dishonesty and/or violations of Professional Codes of Ethics which allow the department or program to impose sanctions ranging from probation to program dismissal. A sanction assigned by a faculty member and/or an academic department or program is an academic, not a disciplinary sanction.
B. If the matter is resolved satisfactorily between the student and the faculty member, and the faculty member decides not to refer the student for university disciplinary action, the faculty member may still report the incident to Student Judicial Services. Student Judicial Services will maintain a record of the reported incident and may elect to pursue university disciplinary action against a student who is reported to that office for a subsequent act of academic dishonesty.
C. If the faculty member decides that a stronger sanction is needed instead of or in addition to any academic sanctions assigned by that faculty member, the incident may be referred to Student Judicial Services for review and possible university disciplinary action. Once the referral is made to Student Judicial Services, the incident will be handled in the same manner as would any other allegation under the Student Conduct Code.
D. In cases where the student denies the allegation of academic dishonesty, the faculty member may elect to postpone assigning any academic sanctions until after the student has gone through the university disciplinary process. If at the end of that process, the charge of academic dishonesty is upheld, the faculty member may then assign an academic sanction. The academic sanction is independent of any disciplinary actions taken against the student by the University.
E. Academic sanctions assigned by the faculty member in agreement with the student or assigned by the faculty member after the charge of academic dishonesty has been validated through the University disciplinary system cannot be grieved under the University's Grade Grievance Procedure.

## Section XI: Special Provisions Governing the University Recognition and Conduct of Greek Letter Social Organizations

A. Because of the importance of the Greek social system and because of the unique circumstances under which it operates, the following conditions have been established between the University and the Greek social organizations. These provisions set out the requirements for maintaining University recognition and good standing and delineate specific violations that may be handled through the Greek system's own judicial process rather than under the University's Student Conduct Code.
B. The University reserves the right to retain jurisdiction over cases in which the conduct violates both these provisions and the University's Student Conduct Code AND the University determines that the misconduct is of such severe nature as to impair, obstruct, interfere with or adversely affect the mission, processes or functions of the University.
C. The University may take action against an individual member of a student organization for misconduct that is both a violation of this provision and of the Student Conduct Code, regardless of any separate disciplinary action taken against the student organization.
D. This section of the Student Conduct Code applies only to the relationship between the University and the Greek social organizations and has no bearing on relations between chapters and national and/or alumni agreements.
E. Good standing must be maintained in order for Greek social organizations to participate in Greek sponsored activities. Failure to do any of the following will constitute a violation of these provisions of the Student Conduct Code and will subject the Greek social organization to disciplinary action, including possible loss of good standing, as described within these provisions under sub-sections F and G:

1. Registering annually as a recognized student organization with the Office of Campus Life;
2. Participating in the appropriate Greek governing bodies (Greek Council and either Black Greek Council, Interfraternity Council, or Panhellenic Council);
3. Submitting roster and grade release forms for active members and pledges/associates during the first month of the semester;
4. Following all rules and guidelines for Greek Rush; and
5. Abiding by all terms and conditions of the alcohol and controlled substance guidelines below:
a. The possession, use and/or consumption of alcoholic beverages while on chapter premises during an official event or in any situation sponsored or endorsed by the chapter or organization must be in compliance with any and all applicable laws and University rules and policies.
b. No chapter or organization members, collectively or individually, shall purchase for, serve to, or sell alcoholic beverages to anyone under the legal drinking age.
c. The possession, sale, and/or use of any illegal or controlled substance at any chapter, organization or University sponsored event are strictly prohibited.
d. Alcohol or controlled substances will be prohibited at any and all rush activities.
e. Open parties where alcohol is provided by the host chapter, meaning those with unrestricted access by non-members of the organization, without specific invitation, will be prohibited.
f. All organizations must provide, at no charge, an alternative non-alcoholic beverage and food at any event where alcohol is provided.
g. There will be no solicitation or encouragement of alcohol consumption by contest or promotion at any chapter event where alcoholic beverages are present.
F. Greek organizations whose members are in violation of this policy, regardless of whether the individuals are identified, will be subject to one or more of the sanctions listed in the Student Conduct Code, Section VI.B: Sanctions for Student Organizations.
G. The following process will be utilized in any incident alleging a violation of these policy provisions by a Greek Social organization:
6. The incident will be referred to the respective Greek Judicial Board for hearing and original adjudication (i.e. sorority cases will be handled by Panhellenic Council, fraternity cases will be heard by IFC and black Greek cases will be heard by Black Greek Council). Each Greek Council will establish its own judicial board and its own set of hearing procedures for handling the incident. The chair of the respective Greek Judicial Board will immediately inform Student Judicial Services about any incident referred to it.
7. A decision rendered by the respective Greek Judicial Board may be appealed by either the party alleging the violation or by the Greek social organization being accused of a violation. The appeal will be made to the Greek Council Judicial Board, which may accept, modify or reject any sanction issued by the Greek Judicial Board.
8. Student Judicial Services will receive written transcripts of all final judicial decisions, whether from the respective Greek Judicial Board (if there was no appeal of its decision) or from the Greek Council Judicial Board (for decisions that were appealed). Student Judicial Services will review the decision and may accept or reject the proposed sanctions.
9. In the event Student Judicial Services rejects the final decision, the Director will provide a written explanation of the rejection and a recommended alternative.
10. In the event that Student Judicial Services and the Greek board rendering the final decision cannot reach an agreement, the case will be referred to the Eastern Michigan University Judicial Appeals Board as outlined in the Eastern Michigan University Student Conduct Code. In this instance Student Judicial Services will notify the national or international headquarters of the organization involved. In the case of local organizations, the Alumni Association will be notified.

## Section XII: Interim Suspensions and Other Interim Sanctions

A. For alleged violations of this Code, interim sanctions, including but not limited to, interim suspension, reassignment to alternate housing, limitation of access to designated University housing facilities and/or campus facilities by time and location, and limitation of privilege to engage in specified University activities may be imposed by the President or his/her designee. Such interim sanctions are to be utilized only when there is reason to believe that the student(s)/student organization's conduct poses a substantial threat of harm oneself or others, threatens or endangers University property, or disrupts the stability and continuance of normal University operations and functions.
B. For interim suspensions only, a student will be denied access to the residence halls, and/or to the campus (including classes), and to all other University activities or events, which the student might otherwise be eligible to participate in or attend. A student organization will lose its University student organization status and will be denied access to any University activities or events which the student organization might otherwise be eligible to participate in or attend.
C. A student/student organization will be notified of an interim sanction or interim suspension, orally, by written notice served on the student/ student organization, or by written notice sent to the last address on record on record. The interim sanctions or interim suspension takes effect the day it is issued by the President or his/her designee.
D. A student/student organization issued an interim suspension or interim sanctions will be given an opportunity to appear before the Vice President of Student Affairs or a designee within three (3) working days in order to discuss the following issues only:

1. the reliability of the information concerning the student/student organization's alleged misconduct.
2. whether the conduct and surrounding circumstances reasonably indicate that the continued presence of the student on University premises poses a substantial and immediate threat to himself/herself, to others, or to property.
E. The Vice President for Student Affairs or his/her designee may affirm or alter the interim sanctions or interim suspension based on the discussion with the student/student organization. If the decision is affirmed, the Vice President or his/her designee will inform the student/student organization of that decision at the conclusion of the discussion. Regardless of whether the interim sanctions or interim suspension is affirmed or altered, the Vice President or his/her designee will direct that a formal hearing before the University Judicial Board take place within ten (10) days. If the University fails to schedule the formal hearing within the ten (10) day period, the interim sanctions or interim suspension will cease although the original charges will not be dropped and will still be handled through the University's disciplinary process.

## Section XIII: Emergency Powers of the President

A. The President, as Chief Executive Officer of the University, is charged with the maintenance of that degree of order and safety necessary to the successful continuation of the University's lawful mission, and he/she is further charged with the authority to protect the members of the University community and University property.
B. When faced with mass disruptions, activity of a violent and destructive nature, or other dangerous violations of University rules of a serious enough nature to threaten the University, the President, after consultation with and approval of the Board of Regents, may declare a "state of emergency" and do any of the following:

1. Impose and have enforced a curfew on all or portions of the University campus.
2. Curtail or suspend services.
3. Close the University or portions of the University entirely for the period of emergency.
4. Issue an emergency suspension and forbid the presence on campus of any student(s)/student organization(s) if they have been sufficiently identified to him/her as participants in activities which violated University policy and led to the conditions described above. Suspensions issued under this section of the code are effective immediately upon notice to the student(s)/student organization(s).
5. Appoint a Special Hearing Board on an ad hoc or extraordinary basis to make a recommendation as to whether any emergency suspensions issued should be continued. The Special Hearing Board will convene and make its recommendations to the President within seven (7) calendar days from the effective date of the emergency suspension. Regardless of the recommendation to the President as to the continuation of the emergency suspension, the President will direct Student Judicial Services to convene a formal hearing before the University Judicial Board within ten (10) days of the date of the Special Hearing Board's recommendation to the President in order to rule on the original charges brought against the student(s)/student organization(s).
6. Take other actions that may be explicitly stated in or implied by any laws governing the authority of the University and/or the President in emergency situations.

Notes: Due to the unique circumstances and severe conditions that would lead the President to exercise any of his/her emergency powers, an emergency suspension issued under this section of the Code is to be considered different from an interim suspension issued under the conditions stated in Section XIII. The issuance and review of an emergency suspension will be handled in accordance with the procedures outlined above in sub-sections 4 and 5 .
C. The Board of Regents, regardless of granting any emergency powers to the President, in no way restricts its own powers and prerogative to carry out its obligations and duties as imposed by the Constitution and laws of the State of Michigan.

## Section XIV: Student Disciplinary Files and Records

A. Student Judicial Services will establish a student disciplinary file whenever a case is referred for investigation of a possible conduct code violation. A student or student organization's file will be destroyed if the investigation indicates that no violation occurred. The file of a student/ student organization found to have violated the conduct code will be retained for four (4) years from the date of the sanction or until the student's graduation from the University, whichever comes first. Student conduct records may be retained longer or permanently if the student was suspended or permanently dismissed or if there is reason to believe the case could result in future litigation.
B. A notation will be made on the student's official University transcript if the student was suspended, permanently dismissed or given an " $E$ " grade in a course as a result of academic dishonesty.
C. The release of student disciplinary records will be governed by applicable federal and state laws governing the privacy of educational records.

## Section XV: Review of the Student Judicial System

A. Student Judicial Services will convene a Student Judicial System Review Committee at least every four (4) years that will be responsible for carrying out the following tasks:

1. Reviewing the goals and effectiveness of the University's disciplinary system;
2. Reviewing the effectiveness of the types of sanctions issued;
3. Recommending changes to the Student Conduct Code;
4. Recommending changes in the judicial processes and procedures established and followed by Student Judicial Services; and
5. Recommending training sessions and publications on topics related to the mission of Student Judicial Services to educate the campus community about student conduct and the campus judicial processes.
B. The Committee will be appointed and chaired by the Director of Student Judicial Services and will include one representative from the following areas: Dean of Students; Legal Affairs; Housing; Health Services; Counseling Services; Student Government; Faculty Council; Department of Public Safety; Chief Justice of the University Judicial Board; and Chief Justice of the Judicial Appeals Board.
Amendments to the Student Conduct Code that receive the support of the Review Committee will be forwarded, in accordance with University procedures, to the Board of Regents for approval.

## University Alcohol and Other Drug Policy

The University is committed to promoting and maintaining a work and academic environment that is free from illegal alcohol and drug use and abuse, in accordance with all federal, state, and local laws. Students and employees are prohibited from reporting to work or working under the influence of alcohol or drugs.

Employees may not consume, possess, distribute, or be under the influence of alcoholic beverages on University property or while on University business (except at University functions at which use of alcohol is approved). Employees, students, and campus visitors aged twenty-one (21) years or older, consuming alcohol at University functions or while on University busi-
ness, where such use is approved, are expected to use alcohol responsibly and not engage in illegal, unprofessional, or disruptive behavior.

Students and campus visitors who have attained the legal drinking age of twenty-one (21) years of age may possess and consume alcoholic beverages only at approved university functions or in residence hall rooms of students who have attained the legal drinking age. Those under twenty-one (21) years of age are not permitted to consume or possess alcoholic beverages at any time.

Students, employees and visitors are prohibited from dispensing, selling or supplying alcoholic beverages to a person under the legal drinking age as defined by Michigan law.

Students, employees, and visitors are prohibited from possessing, consuming, manufacturing, dispensing, or being under the influence of illegal drugs or engaging in improper self-medication while on University property or University business.

Any member of the University community who violates this policy is subject to both prosecution and punishment under federal, state and local laws and to disciplinary proceedings by the University.

This policy is not designed to punish people for seeking rehabilitation. All information about those individuals who voluntarily avail themselves of drug or alcohol counseling or rehabilitation services will remain confidential. Seeking counseling or rehabilitation will not be used as a basis for disciplinary action or be used against an individual in any way.

University employees and students who violate this policy shall be informed about and referred to services to assist them in determining whether they are abusing drugs and alcohol or are chemically dependent. If a problem is found to exist, the individual will be referred to resources to assist him/her in overcoming the drug or alcohol abuse pattern. This referral or assessment shall not limit the University's ability to pursue appropriate disciplinary action, up to and including termination or expulsion, when an employee or student has violated this policy or any other University policy.

This policy shall not add to or supersede union contracts or established employee work rules.

## Health Risks of Alcohol, Tobacco and other Drugs

Types of Drugs: Tobacco

Health Risks:
Cancer of the cheeks, gums, palate, tongue, lips, pancreas, bladder, lungs and kidneys are substantially more common in smokers than nonsmokers.

An average of three times more cavities than nonsmokers

Loss of teeth at a rate three times higher than nonsmokers

Peptic ulcers twice as common in smokers as nonsmokers

Increased chance of heart disease and stroke

Emphysema and chronic bronchitis
Higher incidence of infertility, lower birth weights and smaller size of infants born to smokers

Physical and psychological dependence

Alcohol (including beer, wine, liquor and mixed beverages such as winecoolers, etc.)

Physical and psychological dependence Impaired driving ability - 46,000 highway deaths in 1988 - two out of every five U.S. citizens will be involved in an alcohol-related crash in their lifetimes.

Increased family violence - child abuse and spouse abuse is frequently associated with alcohol use and abuse. Sixty three percent of women in one study of family violence reported that their husbands were drinking when they were violent.

Increased chance of accidental death - alcohol is a contributing factor in at least 15,000 fatal and six million nonfatal injuries in non-highway settings

High risk sexual behavior is more likely and more frequent when under the influence of alcohol

Fetal Alcohol Syndrome in one of the three leading causes of birth defects and the only one that is preventable. It causes mental retardation, physical deformities and heart defects and can be prevented by not drinking during pregnancy

Mental health problems are more frequent in children raised in homes with heavy or frequent use of alcohol

Irritation and inflammation of the esophagus, stomach, small intestines and pancreas

Liver disorders including alcoholic hepatitis and cirrhosis

Nutritional deficiencies
Cardiovascular disease and inflammation of the heart

Cancer of the tongue, mouth, throat, esophagus, liver and breast

Miscarriage and low birth rate
Brain damage
Sexual problems - increased desire but reduced ability to perform or reach climax for both men and women

Disintegration of family life
Behavior inconsistent with values (violence, personality changes, etc.)

Marijuana (including Hash, Hash Oil, Tetrahydrocannabinol, THC, Cannabis)

Diminished: short-term memory; motivation and cognition; coordination and concentration; oral communication; reaction time; and motivation to achieve

Anxiety and panic reactions
Lung and respiratory system damage from exposure to smoke

Psychological dependence
$\left.\left.\left.\begin{array}{ll}\begin{array}{l}\text { Cocaine (including "Crack" } \\ \text { cocaine) }\end{array} & \begin{array}{l}\text { Extremely addictive physically and } \\ \text { psychologically }\end{array} \\ & \begin{array}{l}\text { Sudden death one of four ways: collapsed } \\ \text { respiratory system; arrested heartbeat; } \\ \text { heart attack caused by narrowed blood } \\ \text { vessels; or stroke caused by increased } \\ \text { blood pressure }\end{array} \\ & \text { Increased risk taking }\end{array}\right\} \begin{array}{ll}\text { Seizures } \\ \text { Sleeplessness }\end{array}\right] \begin{array}{ll}\text { Paranoia, delusions and hallucinations }\end{array}\right\}$
$\left.\begin{array}{ll} & \text { Ongoing speech problems } \\ & \text { Depression and hallucinations } \\ & \text { Aggressive behavior } \\ & \text { Impaired memory and perception } \\ \text { Anpredictable and sometimes intense } \\ \text { mood disturbances and behavior changes }\end{array}\right\}$

## Community Sanctions

Violations of laws and ordinances may result in misdemeanor or felony convictions accompanied by the imposition of legal sanctions which include, but are not limited to, the following:

- Fines as determined under local, state or federal laws;
- Imprisonment, including up to life imprisonment for possession of more than 650 grams or trafficking in drugs such as Heroin and Cocaine;
- Forfeiture of personal and real property;
- Denial of federal benefits such as grants, contracts and student loans;
- Loss of driving privileges; and
- Required attendance at substance abuse education or treatment programs.


## University Sanctions

Violation of University policies and rules will be subject to campus disciplinary review and action, as follows:

## Faculty and Staff:

Disciplinary action will be taken as per applicable collective bargaining agreements and university policy up to and including termination of employment.

## Students:

Disciplinary action will be taken by Student Judicial Services under the Student Conduct Code and may include sanctions ranging from formal reprimand to permanent dismissal, in addition to counseling and/or referral to a substance abuse educational/intervention program. In certain circumstances, parents of a student under 21 years old will be notified about the drug or alcohol violation, as per Eastern Michigan University's policy on Parental Notification.

In addition to University level action taken under the Student Conduct Code, other University departments maintain internal policies and rules regarding alcohol and other drugs and may impose sanctions against students and/or student groups which violate these policies. For example, University Housing, Athletics, Greeks, Studies Abroad and several academic departments have policies addressing alcohol and other drugs. Any action taken under one policy does not prevent action being taken under any other policy.

## Employee Reporting Requirement

Under the Drug Free Schools and Communities Act Amendments of 1989, a faculty or staff member employed under a federal grant or contract must notify the University, Human Resources, Employee Relations (734.487.0083) or Academic Human Resources (734.487.0076), in writing, of his or her arrest or conviction for violation of any criminal drug statute occurring in the workplace or while on University business no later than five days after such arrest or conviction.

## Review of EMU's Alcohol and Other Drug Abuse Prevention Program

The University will review its Alcohol and Other Drug Abuse Prevention Program every two years to determine its effectiveness and implement changes to the program as needed and to ensure that the disciplinary sanctions applied by the University are consistently enforced.

## EMU Policy on Notification to Parents of Drug and Alcohol Violations

1. When the University has determined that a student has committed a second disciplinary violation with respect to campus rules regarding the use or possession of drugs or alcohol, the University will disclose to parents or legal guardians such information if the student is less than 21 years of age.
2. Parents will be notified of a first disciplinary violation with respect to campus rules regarding the use or possession of drugs or alcohol if (a) the incident also involves another serious offense; or (b) if there is reason to believe that a student's health and well-being are in jeopardy; or (c) the violation results in a sanction of either housing probation or higher or universitylevel probation or higher. In cases where the drug or alcohol violation also involves another serious offense, the University will only release details of the drug or alcohol violation to the parents or legal guardians.
3. At the point it is determined that parental notification is permitted under the provisions of this policy, the student will be given twenty-four (24) hours to make the initial contact with the parents or legal guardians prior to the University notifying the parents or legal guardians.
4. Within the twenty-four (24) hour time period that a student has to notify his/her parents or legal guardians, the student may submit documentation or a written statement indicating that there are special circumstances that make parental notification inappropriate. The University's designee will consider the request and make a determination as to notification on a case-by-case basis.
5. Parental notification is in addition to any other sanctions issued by the University.

## Acceptable Use of Information Technology Resources

Information technology resources are provided by Eastern Michigan University to its students, faculty and administration in support of the University's mission. These resources include, but are not limited to, personal computers, workstations, mini- and mainframe computers and voice, data and video communication networks.

These guidelines apply to any user of any device, workstation, desktop computer, local area network or mainframe system provided by the University and attached to the University network or Michnet network. This document outlines the acceptable use of these resources, and will be reviewed on an annual basis. Access to Information Technology Resources University faculty, administrators and staff are provided access to University information technology resources by virtue of their employment, and to institutional data by an appropriate steward. Students are provided access to University resources by virtue of their enrollment. Access to specific resources may be provided by appropriate academic departments. Other individuals may be provided access to University information technology resources through sponsorship by an appropriate University administrator.

## Software Copyright Laws

Eastern Michigan University is licensed to use numerous microcomputer and mainframe software programs. The University enters into a license agreement with the owner of each computer program pursuant to which the University and its employees assume certain legally binding obligations. Licensed computer software is intended for the use specifically authorized in such agreements, remains the intellectual property of the owner, and is protected by copyright laws. The University endorses the EDUCOM code of responsible software use as described in the publication, Using Soffware: a Guide to Ethical and Legal Use of Software for Members of the Academic Community.

All University employees and students who use licensed software shall use that software only in accordance with the license agreement. There is no authority for an employee or student to violate the terms of a license agreement. To transfer the possession of any copy, modification or merged portion of any licensed program, whether gratuitously or for gain, shall be in violation of this procedure and is prohibited by the University. Such conduct may also violate state and federal law. Employees or students who make, acquire or use unauthorized copies of computer software or otherwise violate this procedure shall be subject to disciplinary action in accordance with the University policy. They may also be subject to personal liability under copyright law. Employees or students using personal software on University devices must demonstrate evidence of ownership.

## Acceptable Use

Eastern Michigan University is a member of Merit Network, Inc., and is connected to Michnet, the state-wide higher education network, and to other networks provided by Michnet. As a member of Merit Network, Inc., the University complies with the Michnet Acceptable Use Policy. In addition to these policies, the University maintains and enforces this acceptable use procedure.

Users of University information technology resources agree to abide by applicable Federal and State information technology laws, all applicable acceptable use policies, and all University policies and standards of conduct. The University's acceptable use procedure is based on the following principles:

- Respect for the privacy of other users. For example, users shall not obtain copies of files belonging to other users without permission, modify files or passwords belonging to other users, or represent themselves as other users.
- Respect for the legal protection by copyright and license to programs and/or data. For example, users shall not install or use illegal copies of licensed software.
- Respect for the security and integrity of information technology resources. For example, users shall not develop programs that harass other users, infiltrate or modify computer systems or networks, or damage or alter software or data components of a computer system.
- Open acknowledgment of use. For example, administrators of University resources are required to identify users of those resources. Account owners are responsible for any use of University resources made with their accounts.
- Departmental compliance. For example, administrators of open access computing labs may request that labs be attached to the University network if acceptable procedures are established to identify users. Departments may define additional "conditions of use" for resources under their control if these conditions are consistent with this procedure. Specific features of the University's acceptable use procedure are:

1. No person shall intentionally and without proper authorization gain access to, alter, damage or destroy a computer system or computer network or the software program or data contained in a computer, computer system or computer network.
2. No person is authorized to utilize in any manner University computer equipment and software and other University equipment, whether owned or leased by the University, when such use would be for personal financial gain and unrelated to any legitimate academic pursuit, unless the use is pursuant to a contractual arrangement in advance of use providing for appropriate compensation to the University, or when such use would be in violation of any University contractual arrangement with equipment or software vendors or lessors, or computer network organizations.
3. No person without proper authorization may utilize computer equipment or programs to gain access to, copy or obtain for personal use or information, records or information owned or possessed by the University.
4. No person may copy or distribute software, or its documentation, without the permission of the copyright holder.
Guidelines for Determining Acceptable Use
The intent of this procedure is to identify general uses which are consistent with the provision of information technology resources and the University's affiliation with Merit Network, Inc. It is not intended to enumerate all possible uses. This procedure is administered by the chief information officer. The University may determine if specific use of information technology resources are consistent with the provisions of this procedure. If a use is consistent with this procedure, then activities in a direct support of that use will be considered consistent. General guidelines for determining acceptable use include:

- Use for exchange of data or information for personal development, to maintain currency or debate issues in a field is acceptable.
- Use for disciplinary, professional, association or advisory activities related to the user's research and instructional activities is acceptable.
- Use in applying for or administering grants or contracts for research or instruction is acceptable.
- Use for general administrative activities and communication in support of research and instruction is acceptable.
- Use originating from a network of another authorized organization of an affiliated network which meets the acceptable use guidelines of that organization is acceptable.
- Use which is incidental to otherwise acceptable uses, except those which are illegal or specifically unacceptable, is acceptable.
- Development of computer systems which violate the guidelines outlined in this document are not acceptable.
- Establishing network connections which create routing patterns inconsistent with the effective and shared use of the University network is not acceptable. All planned network connections must be approved by the Information and Communications Technology Division.
- Malicious use of any kind is not acceptable. Malicious use includes, but is not limited to, harassment of other users, attempts to develop or introduce virus programs to systems, attempts to cause system outages or attempts to discover passwords. All uses must be consistent with guiding ethical statements, applicable acceptable use policies and community standards. University resources must not be used in any way which violates applicable laws, regulations or University policies. Use of University resources or affiliated networks which precludes or hampers the use of those resources by others is not acceptable.
- Unsolicited advertising is not acceptable. Advertising is permitted on some mailing lists if the sponsored group explicitly sanctions advertising. Announcements of new products or services are acceptable providing they do not include solicitation for sale.
- Use of University resources for profit-making activities is not acceptable.
- Use of University resources for recreational games is not acceptable when such use restricts access of those resources by other users.


## Violations

Violations of these procedures should be reported to the chief information officer. Information and Communications Technology Division staff will notify the responsible user, will take appropriate remedial actions and will inform appropriate University departments and/or affiliated networks of their actions. Departmental administrators responsible for managing University information technology resources may temporarily disable user accounts or workstations connected to the network if violations of this policy are suspected. Information and Communications Technology staff should be informed of all such actions. Every effort will be made to inform affected users prior to disconnection, and every effort will be made to reestablish the connection as soon as it is deemed mutually acceptable. Any employee or student found to violate University standards of conduct will be subject to disciplinary action under University policy. Any suspected violation of state and federal information technology laws will be reported to the appropriate legal authority for investigation.

August 1996

## EDUCOM Code

Respect for intellectual labor and creativity is vital to academic discourse and enterprise. This principle applies to works of all authors and publishers in all media. It encompasses respect for the right to acknowledgment, right to privacy, and right to determine the form, manner and terms of publication and distribution. Because electronic information is volatile and easily reproduced, respect for the work and personal expression of others is especially critical in computer environments. Violations of authorial integrity, including plagiarism, invasion of privacy, unauthorized access, and trade secret and copyright violations, may be grounds for sanctions against members of the academic community.

Using Software: A Guide to the Ethical and Legal Use of Software for Members of the Academic Community issued by EDUCOM and ADAPSO Here are some relevant facts:

1. Unauthorized copying of software is illegal. Copyright law protects software authors and publishers, just as patent law protects inventors.
2. Unauthorized copying of software by individuals can harm the entire academic community. If unauthorized copying proliferates on a
campus, the institution may incur a legal liability. Also, the institution may find it more difficult to negotiate agreements that would make software more widely and less expensively available to members of the academic community.
3. Unauthorized copying of software can deprive developers of a fair return for their work, increase prices, reduce the level of future support and enhancement and inhibit the development of new software products.

Respect for the intellectual work and property of others has traditionally been essential to the mission of colleges and universities. As members of the academic community, we value the free exchange of ideas. Just as we do not tolerate plagiarism, we do not condone the unauthorized copying of software, including programs, applications, databases and code. Therefore, we offer the following statement of principle about intellectual property and the legal and ethical use of software. This "code" - intended for adaptation and use by individual colleges and universities - was developed by the EDUCOM Software Initiative.

## Classification of Software:

In terms of copyright, there are four broad classifications of software:

- Commercial
- Shareware
- Freeware
- Public Domain

The restrictions and limitations regarding each classification are different.

## Commercial

Commercial software represents the majority of software purchased from software publishers, commercial computer stores, etc. When you buy software, you are actually acquiring a license to use it, not own it. You acquire the license from the company that owns the copyright. The conditions and restrictions of the license agreement vary from program to program and should be read carefully. In general, commercial software licenses stipulate that:

- the software is covered by copyright,
- although one archival copy of the software can be made, the backup copy cannot be used except when the original package fails or is destroyed,
- modifications to the software are not allowed,
- decompiling (i.e. reverse engineering) of the program code is not allowed without the permission of the copyright holder.


## Shareware

Shareware software is covered by copyright, as well. When you acquire software under a shareware arrangement, you are actually acquiring a license to use it, not own it. You acquire the license from the individual or company that owns the copyright. The conditions and restrictions of the license agreement vary from program to program and should be read carefully. The copyright holders for shareware allow purchasers to make and distribute copies of the software, but demand that if, after testing the software, you adopt it for use, you must pay for it. In general, shareware software licenses stipulate that:

- the software is covered by copyright,
- although one archival copy of the software can be made, the backup copy cannot be used except when the original package fails or is destroyed,
- modifications to the software are not allowed,
- decompiling (i.e. reverse engineering) of the program code is not allowed without the permission of the copyright holder, and
- development of new works built upon the package (dervative works) is not allowed without the permission of the copyright holder.

Selling software as shareware is a marketing decision, it does not change the legal requirements with respect to copyright. That means that you can make a single archival copy, but you are obliged to pay for all copies adopted for use.

## Freeware

Freeware also is covered by copyright and subject to the conditions defined by the holder of the copyright. The conditions for freeware are in direct opposition to normal copyright restrictions. In general, freeware software licenses stipulate that:

- the software is covered by copyright,
- copies of the software can be made for both archival and distribution purposes but that distribution cannot be for profit,
- modifications to the software is allowed and encouraged,
- decompiling (i.e reverse engineering) of the program code is allowed without the explicit permission of the copyright holder, and
- development of new works built upon the package (derivative works) is allowed and encouraged with the condition that derivative works must also be designated as freeware. That means that you cannot take freeware, modify or extend it, and then sell it as commercial or shareware software.


## Public Domain

Public domain software comes into being when the original copyright holder explicitly relinquishes all rights to the software. Since under current copyright law, all intellectual works (including software) are protected as soon as they are committed to a medium, for something to be public domain it must be clearly marked as such. Before March 1, 1989, it was assumed that intellectual works were not covered by copyright unless the copyright symbol and declaration appeared on the work. With the United States adherence to the Berne Convention this presumption has been reversed. Now all works assume copyright protection unless the public domain notification is stated. This means that for public domain software:

- copyright rights have been relinquished,
- software copies can be made for both archival and distribution purposes with no restrictions as to distribution,
- modifications to the software are allowed,
- decompiling (i.e. reverse engineering) of the program code is allowed, and
- development of new works built upon the package (derivative works) is allowed without the distribution or use of the derivative work.


## Questions You May Have About Using Software

A. What do I need to know about software and the U.S. Copyright Act?

Unless it has been placed in the public domain, software is protected by copyright law. The owner of a copyright holds exclusive right to the reproduction and distribution of his or her work. Therefore, it is illegal to duplicate or distribute software or its documentation without the permission of the copyright owner. If you have purchased your copy, however, you may make a back-up for your own use in case the original is destroyed or fails to work.

## B. Can I loan software I have purchased myself?

If your software came with a clearly visible license agreement, or if you signed a registration card, read the licence carefully before you use the software. Some licenses may restrict use to a specific computer. Copyright law does not permit you to run your software on two or more computers simultaneously unless the license agreement specifically allows it. It may, however, be legal to loan your software to a friend temporarily as long as you do not keep a copy.

## C. If software is not copy-protected, do I have the right to copy it?

Lack of copy-protection does not constitute permission to copy software in order to share or sell it. "Non-copy-protected" software enables you to protect your investment by making a back-up copy. In offering non-copyprotected software to you, the developer or publisher has demonstrated significant trust in your integrity.

## D. May I copy software that is available through facilities on my campus, so that I can use it more conveniently in my own room?

Software acquired by colleges and universities is usually licensed. The licenses restrict how and where the software may be legally used by members of the community. This applies to software installed on hard disks in microcomputer clusters, software distributed on disks by a campus lending library, and
software available on a campus mainframe or network. Some institutional licenses permit copying for certain purposes. Consult your campus authorities if you are unsure about the use of a particular software product.
E. Isn't it legally "fair use" to copy software if the purpose in sharing is purely educational?
No. It is illegal for a faculty member or student to copy software for distribution among the members of a class, without permission of the author or publisher.

## Alternatives to Explore

Software can be expensive. You may think that you cannot afford to purchase certain programs that you need. But there are legal alternatives to unauthorized copying.

## Site Licensed and Bulk-Purchased Software

Your institution may have negotiated agreements that make software available either to use or to purchase at special prices. Consult your campus computing office for information. Software available through institutional site licenses or bulk purchases is subject to copyright and license restrictions, and you may not make or distribute copies without authorization.

## Shareware

Shareware, or "user-supported" software, is copyrighted software that the developer encourages you to copy and distribute to others. This permission is explicitly stated in the documentation or displayed on the computer screen. The developer of shareware generally asks for a small donation or registration fee if you like the software and plan to use it. By registering, you may receive further documentation, updates and enhancements. You are also supporting future software development.

## Public Domain Software

Sometimes authors dedicate their software to the public domain, which means that the software is not subject to any copyright restrictions. It can be copied and shared freely. Software without copyright notice is often, but not necessarily, in the public domain. Before you copy or distribute software that is not explicitly in the public domain, check with your campus computing office.

## A Final Note

Restrictions on the use of software are far from uniform. You should check carefully each piece of software and the accompanying documentation yourself. In general, you do not have the right to:

1. Receive and use unauthorized copies of software, or
2. Make unauthorized copies of software for others.

If you have questions not answered by this brochure about the proper use and distribution of a software product, seek help from your computing office, from the software developer, or publisher.

Copyright 1987 EDUCOM AND ADAPSO

## MichNet Policies

MichNet Acceptable Use Policy
12 January 2001

## Purpose

The purpose of MichNet is given in Merit Network, Inc.'s bylaws which state that "in pursuance of its mission in instruction, research and service it is the role of Merit as the operator of a high-speed digital communications network to contribute broadly to educational and economic development in Michigan."

## Acceptable Use

This statement represents a guide to the acceptable use of MichNet. Any member or affiliate organization or individual connected to MichNet in order to use the Michigan statewide network, or any other networks which are used as a result of their MichNet connection must comply with this policy and the stated purposes and acceptable use policies of any other networks or hosts used. Each member and affiliate organization is responsible for the activity of its users and for ensuring that its users are familiar with this policy or an equivalent policy. In addition each member and affiliate is encouraged to maintain and enforce its own acceptable use policies. The provisions of this policy govern all use of MichNet, including any unsupervised anonymous network access offered by members or affiliates. The following guidelines will be applied to determine whether or not a particular use of MichNet is appropriate:

- Users must respect the privacy of others; for example, users shall not intentionally seek information on, obtain copies of, or modify files, other data or passwords belonging to others, or represent themselves as another user unless explicitly authorized to do so by that user.
- Users must respect the legal protection provided by copyright and license to programs and data.
- Users must respect the integrity of computing and network systems; for example, users shall not intentionally develop or use programs that harass other users or infiltrate a computer, computing system or network and/or damage or alter the software components of a computer, computing system or network.
- Use should be consistent with guiding ethical statements and accepted community standards. Malicious use is not acceptable.
- MichNet may not be used in ways that violate applicable laws or regulations.
- Use of MichNet and any attached network in a manner that precludes or significantly hampers its use by others is not allowed.
- Connections which create routing patterns that are inconsistent with the effective and shared use of the network may not be established.
- Unsolicited advertising is not acceptable. Advertising is permitted on some Web sites, mailing lists, news groups and similar environments if advertising is explicitly allowed in that environment.
- Repeated, unsolicited and/or unwanted communication of an intrusive nature is not acceptable. For example, continuing to send e-mail messages to an individual after being asked to stop is not acceptable.

The intent of this policy is to make clear certain uses which are and are not appropriate, not to exhaustively enumerate all such possible uses. Using the guidelines given above, Merit may at any time make determinations that particular uses are or are not appropriate. Merit will not monitor or judge the content of information transmitted over MichNet, but will investigate complaints of possible inappropriate use. In the course of investigating complaints, Merit staff will safeguard the privacy of all parties and will themselves follow the guidelines given in this policy. Merit will only release sensitive, confidential or personally identifiable information to third parties when required by law or when in Merit's judgement release is required to prevent serious injury or harm that could result from violation of this policy.

## Remedial Action

When Merit learns of possible inappropriate use, Merit staff will notify the member or affiliate responsible, which must take immediate remedial action and inform Merit of its action. In an emergency, in order to prevent further possible inappropriate activity, Merit may temporarily disconnect a member or affiliate from MichNet. If this is deemed necessary by Merit staff, every effort will be made to inform the member or affiliate prior to disconnection, and every effort will be made to re-establish the connection as soon as it is mutually deemed safe. Any determination of inappropriate use serious enough to require disconnection shall be promptly communicated to every member of the Merit Board of Directors through an established means of publication.

## Administrative Officers

## Board of Regents

Chair: Philip A. Incarnati
Vice Chair: Karen Quinlin Valvo
Joseph E. Antonini
Jan A. Brandon
Robert A. Demattia
Steven G. Gordon
Thomas W. Sidlik
Roy E. Wilbanks
Secretary: Dana Aymond

## The Cabinet

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Provost and Vice President for Academic Affairs (Interim): Donald Loppnow
Vice President for Advancement and Executive Director of EMU Foundation (Interim): Thomas R. Stenick
Vice President for Business and Finance and Treasurer to the Board of Regents (Interim): John Beaghan
Vice President for Enrollment Services: Courtney O. McAnuff
Vice President for Student Affairs: James F. Vick
Vice President for University Relations: Juanita M. Reid
Executive Director for University Marketing: Rita Abent
Executive Director for Athletics: David L. Diles
General Counsel/University Attorney: Kenneth A. McKanders
Chief Information Officer and Executive Director of Information and
Communications Technology: Margaret Cline
Senior Executive for Presidential Initiatives: Martha W. Tack
Office of the President
President (Interim): Craig D. Willis
Senior Executive for Strategic Planning and Continuous Improvement (Interim): Crystal Mills
Senior Executive for Presidential Initiatives: Martha W. Tack
Intercollegiate Athletics
Executive Director: David L. Diles
Legal Affairs
University Attorney: Kenneth A. McKanders
University Marketing and Communications
Executive Director: Rita Abent

## Division of Academic Affairs

## Academic Administration

Provost and Vice President (Interim): Donald Loppnow
Senior Associate Vice President for Academic Continuous Improvement (Interim): Robert Neely
Associate Vice President for Undergraduate Studies: Ellene Tratras Contis
Associate Vice President for Graduate Studies and Research: Robert Holkeboer
Associate Vice President for Extended Programs (Interim): Mary Sue Marz
Assistant Vice President for Academic Affairs (Interim): Rhonda Longworth
Senior Executive for Strategic Planning and Continuous Improvement (Interim): Crystal Mills

Office of the Provost
Academic Human Resources
Assistant Vice President for Academic Affairs (Interim): Rhonda Longworth
Faculty Development Center, Director: Karen Busch

## Academic Programming

Director: Brian Hoxie
Community College Relations, Director: Pat Cygnar
Course and Program Development, Director: William Miller Program and Catalog Maintenance, Manager: Joy Dockham Program Review and Analysis, Senior Analyst: Donelle Goerlitz

Assessment
Director: Donald H. Bennion
Extended Programs
Associate Vice President for Extended Programs (Interim): Mary Sue Marz
Continuing Education, Assistant Dean: Dawn Malone
Continuing Education, Assistant Dean: Dan Gaymer
Institute for the Study of Children, Families and Communities, Director: Ron Woods
World College, Director: Margareta O'Connell
Information and Communications Technology
Executive Director: Margaret Cline
Graduate Studies and Research, Graduate School
Associate Vice President: Robert O. Holkeboer
Associate Dean: Patrick Melia
Associate Dean: Deb deLaski-Smith
Research Development, Director: Brian D. Anderson
Strategic Planning and Continuous Improvement
Senior Executive (Interim): Crystal Miles
Undergraduate Studies
Director:
Academic Service Learning, Director: Kathy Stacey
American Humanics, Director: Chris Woods Foreman
Writing Across the Curriculum: Jacob Blumner
University Honors Program
Director (Interim): James Knapp
University Library
Librarian: Rachel Cheng
College of Arts and Sciences
Dean: Linda Pritchard
Associate Dean (Interim): Laura George
Associate Dean (Interim): Hartmut Höft

## Departments and Programs

African American Studies, Head (Interim): Ronald Woods
Art, Head: Thomas K. Venner
Biology, Head (Interim): Robert Winning
Chemistry, Head: Wade J. Tornquist
Communication and Theatre Arts, Head: Dennis M. Beagen
Computer Science, Head (Interim): Bill McMillan
Economics, Head: Raouf S. Hanna
English Language and Literature, Head: Russell Larson
Foreign Languages and Bilingual Studies, Head: Elisabeth Morgan
Geography and Geology, Head (Interim): Yichun Xie
History and Philosophy, Head (Interim): Phil Schmitz
Mathematics, Head: Bette Warren
Music and Dance, Head: David Woike
Physics and Astronomy, Head (Interim): Alexandria Oakes
Political Science, Head (Interim): Raymond Rosenfeld
Psychology, Head (Interim): John Knapp
Sociology, Anthropology and Criminology, Head (Interim): Jay Weinstein
Women's Studies, Director: Linda Schott

## College of Business

Dean: David Mielke
Associate Dean: Denise Tanguay
Assistant Dean: Amelia S. Chan
Assistant Dean: Steven Hoskins

## Departments

Accounting and Finance, Head: Susan Kattelus
Computer Information Systems, Head: Hung-Lian Tang
Management, Head: Fraya C. Wagner-Marsh
Marketing, Head (Interim): Paul Chao

## College of Education

Dean (Interim): Alane J. Starko
Associate Dean: Michael Bretting
Associate Dean: Virginia Harder
Assistant Dean: Shawn Quilter

## Departments

Leadership and Counseling, Head: Jaclynn Tracy
Special Education, Head: Lynne Rocklage
Teacher Education, Head (Interim): Donald Bennion
College of Health and Human Services
Dean: Jeanne Thomas
Associate Dean: Polly Buchanan
Advising Coordinator: Martha Sutton

## Schools

Health Promotion and Human Performance, Director: Ian Haslam
Health Sciences, Director: Elizabeth Francis-Connolly
Nursing, Director (Interim): Barbara Scheffer
Social Work, Director: John Gunther

## College of Technology

Dean: John C. Dugger
Associate Dean: Konnie Kustron
Schools and Departments
Engineering Technology, Director: Behrooz Lahidiji
Technology Studies, Director: Morell Boone
Military Science, Head: Clifford F. Buttram Jr.
Coatings Research Institute
Director: Theodore Provder
Textiles Research and Training Institute
Director: Julie A. Becker

## Division of Advancement

Vice President and Director of the EMU Foundation (Interim): Thomas R. Stevick

Alumni Relations, Director: Vicki Reaume

## Division of Business and Finance

Vice President (Interim): John Beaghan
Associate Vice President, Facilities: Anthony M. Catner
Assistant Vice President and Controller (Interim): Daniel B. Cooper

## Human Resources

Executive Director: Susan Patalan
Benefits Programs, Director: Jeanette Hassan
Compensation/Employment, Director: Craig F. Reidsma
Employee Relations, Director: Donald Wood
Human Resource Development, Director: (Vacant)

## Kresge Environmental Center <br> Director: Ben Czinski

Public Safety
Director: Cindy Hall
Purchasing and Telecommunications
Director: Gary Reffitt

## Division of Enrollment Services

Vice President: Courtney O. McAnuff Assistant Vice President: Bernice A. Lindke

Academic Advising Center
Director: Patricia L. Williams
Admissions
Director: Judy Benfield Tatum
Financial Aid
Assistant Vice President: Bernice A. Lindke
Holman Learning Center
Director: Lynette Findley
Records and Registration
Assistant Vice President: Bernice A. Lindke

## Division of Student Affairs

Vice President: James F. Vick
Associate Vice President: Karen Simpkins
Career Services Center
Director: J. Michael Erwin
Dining Services
Director: Larry Gates
Housing
Director: Rebecca J. Figura
Business Operations
Director: Vickie Bagherzadeh
McKenny Union and Campus Life
Director: Glenna Frank Miller
Ombudsman
Gregory A. Peoples
Recreation/Intramurals
Director: Robert W. England
Student Judicial Services
Director: Jennifer Schrage
Student Media
Director: Kevin Devine
University Health Services
Director: Ellen Gold

## Division of University Relations

Vice President: Juanita M. Reid
Associate Vice President: Kathleen D. Tinney
Convocation Center
Director: Cheryl Swanson
Institute for Community and Regional Development
Director: Charles M. Monsma
University Computing
Executive Director: Margaret Cline
WEMU Radio
Director: Arthur J. Timko

## Faculty

## Accounting and Finance

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Cianciolo, Thomas A. (1985) Professor; Ph.D.; Michigan State University Diallo, Alahassane (1985) Professor; Ph.D.; Ohio State University Etter, Edwin (2002) Assistant Professor; Ph.D.; Ohio State University
Garg, Ramesh C. (1978) Professor; D.B.A.; Kent State University Gledhill, Roger (1976) Associate Professor; Ph.D.; Virginia Polytechnic Institute and State University
Hanson, Robert C. (1996) Professor; Ph.D.; University of Utah Hwang, Angela (2002) Assistant Professor; Ph.D.; University of Houston Kattelus, Susan C. (1990) Professor and Department Head; Ph.D.; Michigan State University
Khan, Zafar U. (1989) Professor; Ph.D.; Louisiana State University Kiss, Robert M. (1990) Associate Professor; Ph.D.; Kent State University Kramer, Morrey (1984) Associate Professor; Ph.D.; University of Michigan Mahoney, Lois (2004) Assistant Professor; Ph.D.; University of Central Florida
McCombs, Gary B. (1982) Associate Professor; MBA.; University of Michigan
Moeller, Susan (1990) Professor; Ph.D.; Michigan State University Okopny, Robert D. (1988) Professor; Ph.D.; Texas A\&M University Pathak, Chandra (1981) Professor; Ph.D.; University of Tennessee Rahman, Mahmud (1991) Professor; Ph.D.; University of Texas-Arlington Ross, Barbara W. (2003) Associate Professor; Ph.D.; Michigan State University
Snyir, Andrew (1984) Professor; Ph.D.; Purdue University Tessema, Asrat (1985) Professor; Ph.D.; University of Iowa Woodland, Linda (1982) Professor; Ph.D.; Purdue University

## African American Studies

Green, TeResa C. (1997) Assistant Professor; Ph.D.; Wayne State University Okafor, Victor O. (1995) Associate Professor; Ph.D.; Temple University Perry, Robert L. (1997) Professor and Department Head; Ph.D.; Wayne State University
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Woods, Ronald C. (1978) Professor; J.D.; University of Michigan

## Art

Atzmon, Leslie (1999) Assistant Professor; M.F.A.; Eastern Michigan University Avedon, Barry (1966) Professor; M.F.A.; Rochester Institute of Technology Blakely, Colin (2001) Assistant Professor; M.F.A.; University of New Mexico Bocklage, Christopher (1986) Professor; M.F.A.; Southern Illinois University Buffington, Melanie (2004) Assistant Professor; Ph.D.; Ohio State University Davis, Margret (1994) Associate Professor; M.F.A.; University of Michigan DeHoog, John (2000) Assistant Professor; M.F.A.; Rhode Island School of Design
Fairfield, Richard (1963) Professor; M.F.A.; University of Illinois Hyndman, Christopher (2001) Assistant Professor; M.F.A.; Ohio University Maniotes, Andrew (2002) Assistant Professor; M.F.A.; Minneapolis College of Art and Design
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## Biology

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Clemans, Daniel (2000) Assistant Professor; Ph.D.; University of Minnesota
Coffman, Margaret A. (2001) Assistant Professor; Ph.D.; Notre Dame University
Eisenbach, Jamin (1990) Professor; Ph.D.; University of California-Berkley
Francoeur, Steve (2002) Assistant Professor; Ph.D.; University of Alabama
Greco, Tamara (1996) Associate Professor; Ph.D.; University of Wis-consin-Madison
Hannan, Gary L. (1982) Professor; Ph.D.; University of California-Berkley
Kass, David (1996) Associate Professor; Ph.D.; University of South Carolina
Kuehn, Kevin (2000) Assistant Professor; Ph.D.; University of Alabama
Kurta, Allen (1988) Professor; Ph.D.; Boston University
Laporte, Marianne M. (2001) Assistant Professor; Ph.D.; University of Wisconsin
Liggit, Peggy (1998) Associate Professor; Ph.D.; University of Nevada-Reno Neely, Robert K. (1984) Professor and Associate Dean, College of Arts and Sciences; Ph.D.; Iowa State University
Novak, John A. (1986) Associate Professor; Ph.D.; University of Michigan
Reinhardt, Ulrich (2000) Assistant Professor; Ph.D.; University of British Columbia
Shillington, Cara (2001) Assistant Professor; Ph.D.; Oklahoma State University
VandenBosch, James L. (1987) Professor; Ph.D.; University of Michigan
Walker, Glenn K. (1976) Professor; Ph.D.; University of Maryland
Winning, Robert (1995) Associate Professor; Ph.D.; University of Waterloo

## Bruce T. Halle Library

Badics, Joseph (1993) Instructor; M.L.S.; University of Michigan Baier, Randal (2000) Assistant Professor; M.I.L.S.; University of Michigan Best, Margaret (1977) Associate Professor; M.A.L.S.; University of Michigan Bucciarelli, Elizabeth (1993) Instructor; M.A.L.S.; Wayne State University Bullard, Rita J. (1986) Associate Professor; M.A.L.S.; University of Michigan Cheng, Rachel J. (2002) Professor and University Librarian; M.L.S.; University of Michigan
Fowler, Rhonda (1989) Assistant Professor; M.I.L.S.; University of Michigan Glover, Barbara (1991) Associate Professor; A.M.L.S.; University of Michigan Hansen, Joanne J. (1965) Associate Professor; M.S.L.S.; Case Western Reserve University
Hogan, Walter P. (1984) Associate Professor; A.M.L.S.; University of Michigan Klopfer, Lisa (2000) Assistant Professor; M.I.S.; University of Michigan Lucas, Raymond (1985) Assistant Professor; M.A.; University of Michigan Meernik, Mary A. (1987) Assistant Professor; A.M.L.S.; University of Michigan
Mercado, Heidi (1988) Associate Professor; A.M.L.S.; University of Michigan Nims, Julia (2000) Assistant Professor; M.L.S.; Indiana University Owen, Eric (2000) Instructor; M.S.I.; University of Michigan
Pittsley, Kate (1988) Assistant Professor; M.I.L.S.; University of Michigan Racz, Twyla W. M. (1968) Professor; M.S.L.S.; Case Western Reserve University
Shirato, Linda (1998) Assistant Professor; A.M.L.S.; University of Michigan Stanger, Keith J. (1974) Assistant Professor; M.L.S.; University of Illinois
Tammany, Rosina (1988) Associate Professor; A.M.L.S.; University of Michigan

## Chemistry

Armitage, Ruth Ann (2001) Assistant Professor; Ph.D.; Texas A\&M Brabec, Michael J. (1985) Professor; Ph.D.; University of Wyoming Brewer, Timothy R. (1998) Associate Professor; Ph.D.; Stanford University Butch, Elizabeth R. (1998) Associate Professor; Ph.D.; Purdue University Contis, Ellene T. (1971) Professor and Assistant Vice President for Academic Administrative Services; Ph.D.; University of Michigan Friebe, Timothy L. (1990) Associate Professor; Ph.D.; Northwestern University Heyl-Clegg, Deborah L. (1992) Professor; Ph.D.; University of Michigan

Holmes, Heather L. (1998) Associate Professor; Ph.D.; University of Michigan
Howard, Arthur S. (1990) Professor; Ph.D.; Cambridge University
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Kolopajlo, Lawrence H. (2002) Assistant Professor; Ph.D.; Western Michigan University
Lindsay, Harriet (2002) Assistant Professor; Ph.D., Ed.D.; University of Arkansas
Milletti, Maria C. (1989) Professor; Ph.D.; University of Wisconsin
Nicholson, Elva Mae (1972) Professor; Ph.D.; Harvard University
Nord, Ross S. (1986) Professor; Ph.D.; Iowa State University
Pernecky, Steven J. (1995) Associate Professor; Ph.D.; Northwestern University
Rengan, Krishnaswamy (1970) Professor; Ph.D.; University of Michigan
Snyder, Donald, M. (1993) Professor; Ph.D.; Purdue University
Tornquist, Wade J. (1986) Professor and Department Head; Ph.D.; University of Minnesota
Vites, Jose C. (1991) Associate Professor; Ph.D.; University of Notre Dame

## Communication and Theatre Arts

Aghssa, Pirooz (1995) Associate Professor; Ph.D.; Texas Tech University Aldridge, Henry B. (1972) Professor; Ph.D.; University of Michigan
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Beagen, Dennis M. (1967) Professor and Department Head; M.A.; University of Michigan
Bird, George P. (1955) Professor; M.S.; University of Wisconsin Bridges, Wallace (1992) Associate Professor; M.F.A.; Western Illinois University Cooper, John. G. (1993) Professor; Ph.D.; Bowling Green State University Evans, Gary L. (1970) Professor; Ph.D.; University of Michigan
Fields, Doris (1997) Associate Professor; Ph.D.; Wayne State University
Foreman, Chris (1994) Associate Professor; Ph.D.; University of Kentucky
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Hammill, Geoffrey (1987) Professor; Ph.D.; Bowling Green State University
Heck-Seibert, Theresa (1992) Associate Professor; M.F.A.; University of Wisconsin
McCracken, Sally R. (1968) Professor; Ph.D.; Wayne State University
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Robinson, James A. (1988) Professor; Ph.D.; University of Michigan
Stacey, Kathleeen (1992) Professor; Ph.D.; Wayne State University
Stevens, Kenneth W. (1972) Professor; M.A.; University of Cincinnati
Stille, Lee (1998) Assistant Professor; Ph.D.; University of Minnesota
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## Computer Information Systems

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Farah, Badie N. (1982) Professor; Ph.D.; Ohio State University
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Mrdalj, Steven (1987) Professor; Ph.D.; University of Belgrade, Yugoslavia
Sanchez, Pedro P. (1972) Professor; Ph.D.; University of Michigan
Saxon, Charles S. (1976) Professor; Ph.D.; University of Michigan
Scazzero, Joseph A. (2001) Associate Professor; Ph.D.; Pennsylvania State University
Sokkar, Fathi F. (1971) Professor; Ph.D.; University of Illinois
Tang, Hung-Lian (2000) Professor and Department Head; Ph.D.; University of Nebraska-Lincoln
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## Computer Science

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Haynes, Susan M. (1992) Associate Professor; Ph.D.; University of Michigan
Höft, Hartmut F.W. (1970) Professor and Department Head; Ph.D.; University of Houston
Ikeji, Augustine C. (1988) Associate Professor; Ph.D.; Wayne State University
Keller, Benjamin (2002) Assistant Professor; Ph.D.; Virginia Polytechnic Institute and State University
Maniccam, Suchindran (2001) Assistant Professor; Ph.D.; State University of New York at Binghamton
McMillan, William W. (1984) Professor; Ph.D.; Case Western Reserve University
Moore, Pamela A. (1985) Instructor; M.S.; Michigan State University
Narayanan, Krishnakumari (2002) Assistant Professor; Ph.D.; Oakland University
Poh, Elsa S. (2001) Assistant Professor; Ph.D.; University of Toledo Sverdlik, William (1999) Associate Professor; Ph.D.; Wayne State University Tehranipour, Aby (1990) Professor; Ph.D.; University of Nebraska Zeiger, Michael (1979) Assistant Professor; Ph.D.; University of Michigan Zhang, Li (2004) Assistant Professor; Ph.D.; State University of New York at Buffalo

## Economics

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Erenberg, Sharon J. (1986) Professor; Ph.D.; University of Illinois
Hanna, Raouf S. (1973) Professor and Department Head; Ph.D.; Indiana University
Hayworth, Steven (1977) Associate Professor; Ph.D.; Massachusetts Institute of Technology
Moreland, Kemper (1980) Professor; Ph.D.; University of Wisconsin
Pearson, Donald (1970) Professor; Ph.D.; University of Texas
Rice, Jennifer L. (2002) Assistant Professor; Ph.D.; Indiana University
Thornton, James (1991) Professor; Ph.D.; University of Oregon
Vogt, Michael G. (1978) Professor; Ph.D.; University of Wisconsin
Woodland, Bill (1981) Professor; Ph.D.; Purdue University

## Engineering Technology

Albayyari, Jihad M. (1999) Associate Professor; Ph.D.; University of Cincinnati
Baghdachi, Jamil (1997) Professor; Ph.D.; University of Mississippi
Bari, Mohamad J. (Jamal) (2000) Assistant Professor; Ph.D.; University of Arkansas
Brake, Mary
Chapman, Robert E. (1992) Assistant Professor; Ph.D.; Yale University
DeLaski-Smith, Deborah (1978) Professor and Associate Dean, Graduate School; Ph.D.; Michigan State University
Ferber, Miklos (Mike) (1999) Instructor; M.A.; Wayne State University
Fields, Daniel J. (1986) Professor and Department Head; Ph.D.; Michigan State University
Jones, Frank (1990) Professor; Ph.D.; Duke University
Jones, Louise (1990) Professor; Ph.D.; University of Michigan
Kanagy, Max E. (1986) Professor and Associate Dean, College of Technology; Ph.D.; Ohio State University
Lahidji, Bob (Behrooz) (1994) Associate Professor and Director; Ph.D.; University of Missouri-Columbia
Lin, Su-Chen Jonathon (1988) Professor; Ph.D.; Iowa State University Lokensgard, Erik (1986) Professor; Ph.D.; Iowa State University Love, Dian (2002) Assistant Professor; M.S.; University of Michigan Lu, Jiang (2003) Assistant Professor; Ph.D; Indiana University
Lyons, Harvey (1998) Associate Professor; Ph.D.; Ohio State University
Mannar, Visay (2002) Assistant Professor; Sadar Patal University
Mannari, Vijaykumar
Mitchell, James G. (Greg) (2000) Assistant Professor; M.S.; Wayne State University

Moylan, William (2001) Instructor; M.S.; Massachusetts Institute of Technology
Rufe, Phillip (1990) Instructor; M.S.; Eastern Michigan University Shay, Tony F. (1990) Professor; Ph.D.; Iowa State University
Soyster, Thomas G. (1982) Associate Professor; Ed.D.; Temple University Speelman, Pamela (1990) Associate Professor; Ed.D.; Wayne State University Stein, James (1990) Assistant Professor; Ed.D.; Wayne State University Texter, John (2002) Professor; Ph. D.; Lehigh University
Tillman, Tracy S. (1990) Associate Professor; Ph.D.; Purdue University
Tucker, Walter W. (1978) Professor; Ph.D.; University of Michigan
Wang, Jianhua (2002) Assistant Professor; Ph.D.; University of Iowa

## English Language and Literature

Adler-Kassner, Linda (2000) Associate Professor; Ph.D.; University of Minnesota
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Aristar-Dry, Helen (1991) Professor; Ph.D.; University of Texas at Austin
Arrington, Phillip (1984) Professor; Ph.D.; University of Louisville
Baker, William Douglas (2001) Assistant Professor; Ph.D.; University of California at Santa Barbara
Blakeslee, Ann (1996) Professor; Ph.D.; Carnegie-Mellon University
Blumner, Jacob (2002) Assistant Professor; Ph.D.; University of Nevada at Reno
Bruss, Paul S. (1969) Professor; Ph.D.; University of Rochester
Burlingame, Lori (1997) Associate Professor; Ph.D.; University of Rochester
Cassidy, Cheryl (1990) Professor; Ph.D.; University of Michigan
Coykendall, Abigail (2002) Assistant Professor; Ph.D.; State University of New York at Buffalo
Csicsila, Joseph (2000) Assistant Professor; Ph.D.; University of Nevada at Las Vegas
Cunningham, Charles (2004) Assistant Professor; Ph.D.; Carnegie-Mellon University
Daeumer, Elisabeth (1992) Professor; Ph.D.; Indiana University
Dionne, Craig (1995) Professor; Ph.D.; Carnegie-Mellon University
Duncan, Jeffrey L. (1971) Professor; Ph.D.; University of Virginia
Eiss, Harry E. (1987) Professor; Ph.D.; University of North Dakota
Eshleman, Clayton (1986) Professor; M.A.; Indiana University
Estrem, Heidi (2000) Assistant Professor; Ph.D.; University of Nevada at Reno
Fleischer, Catherine (1990) Professor; Ph.D.; University of Michigan
Garrett, Edward (2003) Assistant Professor; Ph.D.; UCLA
Geherin, David J. (1969) Professor; Ph.D.; Purdue University
George, Laura (1994) Professor and Associate Dean of the College of Arts and Sciences; Ph.D.; Ohio State University
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Holkeboer, Robert (1971) Professor; Ph.D.; Ohio University
Hume, Christine (2001) Assistant Professor; Ph.D.; University of Denver
Kaston, Andrea (2000) Assistant Professor; Ph.D.; University of Wisconsin
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Knapp, James (1998) Assistant Professor; Ph.D.; University of Rochester
Krause, Steven (1998) Associate Professor; Ph.D.; Bowling Green University
Larson, Russell R. (1970) Professor and Department Head; Ph.D.; University of Michigan
Lucy, Robin (2002) Assistant Professor; Ph.D.; McMaster University
Miller, Bernard A. (1987) Professor; Ph.D.; Purdue University
Most, Sheila (1971) Professor; Ph.D.; Northwestern University
Motschall, Melissa (1995) Associate Professor; Ph.D.; Wayne State University
Neff, Heather (1993) Professor; Ph.D.; University of Zurich
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Norton, Alexandra M. (1989) Professor; Ph.D.; University of CaliforniaBerkeley
Parker, Jeff (2004) Assistant Professor; M.F.A.; Syracuse University
Schlagheck, Carol (1995) Professor; Ph.D.; Bowling Green University
Seely, Daniel T. (1988) Professor; Ph.D.; University of Massachusetts at Amherst
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Simmons, Charles (1997) Professor; J.D.; Georgetown
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## Foreign Language and Bilingual Studies

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Illingworth-Rico, Alfonso (1994) Associate Professor; Ph.D.; University of Arizona
Kirby, Steven D. (1991) Professor; Ph.D.; University of Kentucky
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Nerenz, Anne G. (1986) Professor; Ph.D.; University of Wisconsin
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Palmer, Benjamin W. (1970) Professor; Ph.D.; Northwestern University
Peden, Genevieve (1992) Professor; Ph.D.; Michigan State University
Ruiz, Reynaldo (1979) Professor; Ph.D.; University of New Mexico
Tabuse, Motoko (1992) Professor; Ph.D.; Ohio State University
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## Geography and Geology

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Jones, Robert A. (2003) Assistant Professor; Ph.D.; Portland State University
Kasenow, Michael (1989) Associate Professor; Ph.D.; Western Michigan University
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## S2 Ann Street Lot

N Bowman-Roosevelt Lot (after 5 p.m.)
V College of Business Structure
Q Ford Lot A (after 7:30 p.m.)
Ford Lot B
Key Bank Lot (after 6 p.m., M-Th, fall and winter)
Mayhew Lot 1
F McKenny Staff Lot (after 5 p.m.)
Normal Street Lot (after 6:30 p.m.)
North Campus Lot 1
North Campus Lot 2
D1 Oakwood Lot (North)
Oakwood Lot (South)
Parking Structure
Pease Lot A
Pease Lot A Pease Lot B (after 5 p.m
Sill Lot (after 5 p.m.)
$J \quad$ Smith Lot (after 5 p.m.)
M Snow Lot (after 7:30 p.m.)
W Washington Street Lot

## Faculty/Staff Hangtag Parking

S Ann Street Lot
N Bowman-Roosevelt Lot
V College of Business Structure
Q Ford Lot A
U Key Bank Lot (after 6 p.m., M-TH, fall and winter)
M Mark Jefferson Lot
Z Mayhew Lot I
Z2 Mayhew Lot 2
F McKenny Staff Lot
D1 Normar Lot
E1 Oakwood Lot (North)
D Parking Structure
O Pease Lot A
P Pease Lot B
T Sill Lot
$\begin{array}{ll}\text { M } & \text { Snow Lot } \\ \text { J } & \text { Smith Lot }\end{array}$
W Washington Street Lot

## Special Parking Areas

* Y Ford Lot C (\$1 per hour)
*G McKenny Lot B (\$1 per hour)
K Normal Street Lot B (special permit required)
*O Pease Lot (\$3 entry)
AA Physical Plant Parking
A Rynearson Lot (Free 6 a.m. to 6 p.m., M-F only)
*W Washington Street Lot (\$1 per hour)
*D3 Oakwood Paid Lot (\$1 per hour)
Residence Hangtag Parking Lots
C Hoyt Lot
Z Mayhew Lot 1
I North Campus Lot 1


# All University meters enforced <br> 7 a.m. to 10 p.m. Monday through Friday Lot signs take precedence 

[^24]West Campus



College of Business


Corporate Education Center, Golf Course and EMU Foundation
EMERGENCY INFORMATION PHONE
ROd OnMAP


EASTERN MICHIGAN UNIVERSITY.



[^0]:    Program Fees
    Science (biology, chemistry, computer science, math, physics and as-
    tronomy)
    \$37.50
    Business (all departments).......................................................................................... $\$ 37$

[^1]:    Thesis Plan
    Thesis plan students must submit a written thesis based on original research; an oral presentation of the research to the Department of Chemistry is required. A maximum of 10 hours of CHEM697/698/699 Research in Chemistry ( $1 / 2 / 3 \mathrm{hrs}$ ) may be used toward thesis.

[^2]:    Required Courses.
    15 hours
    *ECON415 Introduction to Econometrics (3 hrs)
    *ECON511 Mathematical Economics (3 hrs)
    *ECON601 Macroeconomic Analysis (3 hrs)
    *ECON602 Microeconomic Analysis (3 hrs)
    Select from option I, option II or option III:
    Option I:
    ECON604 Research Seminar in Economics (3 hrs)
    Option II:
    ECON699 Independent Study ( 3 hrs ) in which the student writes a supervised research (M.A.) paper under the direction of a faculty member.
    Option III:
    ECON692 Thesis (3 hrs)
    Restricted Elective Courses
    15 hours In consultation with the graduate adviser, student may select 15 credit hours in any field of economics, with up to six hours of approved cognate substitutions.

    Program Total 30 hours

    Note:
    *These courses must be completed with a grade of $B$ - or better.

[^3]:    Required Courses
    24 hours
    LITR510 Critical Practices in Literary Studies (3 hrs)
    LITR511 Literary Criticism (3 hrs)
    a) Old English, Medieval English, and Renaissance Literature
    Two courses from the following:

    LITR512 Middle English Literature (3 hrs)
    LITR520 Old English Poetry (3 hrs)
    LITR530 Studies in Chaucer (3 hrs)
    LITR540 Elizabethan and Jacobean Drama (3 hrs)
    LITR541 Studies in Shakespeare (3 hrs)
    LITR545 Studies in Renaissance Literature (3 hrs)
    b) Eighteenth and Nineteenth Century Literature 6 hours Two courses from the following:

    LITR561 Studies in 18th Century Literature (3 hrs)
    LITR563 Studies in 18th Century Fiction (3 hrs)

[^4]:    Required Courses. $\qquad$ .12 hours
    ENGL522 Writing Workshop (sections offered in poetry, fiction, and translation; may be repeated for credit) ( 3 hrs )
    ENGL693 Master's Writing Project (3 hrs)
    Restricted Elective Courses
    .9 hours
    Three courses from the following: LITR526 Studies in African American Literature to 1945 (3 hrs) LITR566 Studies in 20th Century British Fiction (3 hrs) LITR567 Studies in 20th Century Irish Literature (3 hrs)

[^5]:    Note:
    *A maximum of nine hours of undergraduate course work may be permitted in the earning of any graduate degree.

[^6]:    French Courses:
    FRNH431 Studies in French Theatre (3 hrs)
    FRNH432 Studies in French Poetry (3 hrs)
    FRNH433 Studies in French Prose (3 hrs)
    FRNH443 Advanced French Grammar and Composition (3 hrs)
    FRNH444 Advanced French Conversation (3 hrs)
    FRNH445 French Phonetics (3 hrs)

[^7]:    Elective Courses in History $\qquad$ ..1-13 hours
    One to 13 hours selected in consultation with the graduate adviser.

[^8]:    Major Concentration $\qquad$ .12 hours At least six hours at the 500 - or 600 -level in one of the following: economics, geography (courses classified as social science), history, political science (one course from each of three groups, as specified by the department) or sociology/anthropology.

    Restricted Elective Courses ...................................................... 12 hours
    Twelve hours from at least two other disciplines listed above.
    Elective Courses.
    .6 hours
    Six hours of social science or any other graduate courses offered by the University.

[^9]:    Mathematics Courses ............................................................. 15 hours
    Required Courses 0-9 hours
    $\dagger$ MATH411 Abstract Algebra (3 hrs) or equivalent
    $\dagger$ MATH416 Linear Algebra (3 hrs) or equivalent $\dagger$ MATH420 Introduction to Analysis (3 hrs) or equivalent
    Restricted Electives
    5-6 hours
    One course from two of the following three groups:

[^10]:    Required Courses .4 hours
    *PHY650 New Approaches to Teaching Physics I (2 hrs)
    *PHY651 New Approaches to Teaching Physics II (2 hrs)

[^11]:    Required Courses $\qquad$ .9-13 hours
    SOCL630 Advanced Social............................................
    SOCL677 Advanced Methods in Sociological Research (3 hrs)
    SOCL678 Methods in Social Program Evaluation (3 hrs)
    Select from either option I or option II:

[^12]:    ANTH437 Kinship and Social Structure (3 hrs)
    ANTH439 Seminar in Anthropological Theory (3 hrs)
    ANTH441 Senior Seminar in Anthropology (3 hrs)
    ANTH487 Cooperative Education in Anthropology (3 hrs)
    CRM412 Law and Society (3 hrs)
    CRM431 Policing in Society ( 3 hrs )
    CRM447 Senior Seminar in Criminology ( 3 hrs )
    CRM460 Criminal Law II (3 hrs)
    CRM487 Cooperative Education in Criminal Justice (3 hrs)
    CRM488/489 Field Internship in Criminology and Criminal Justice (3 hrs)
    SOCL402 Group Dynamics (3 hrs)
    SOCL403 Modern Sociological Theory (3 hrs)
    SOCL405 Senior Seminar in Sociology (3 hrs)
    SOCL412 Law and Society ( 3 hrs )
    SOCL448 Collective Behavior (3 hrs)
    SOCL450 The Family (3 hrs)
    SOCL451 Sociology of Work and Occupations (3 hrs)
    SOCL462 Complex Organizations (3 hrs)
    SOCL465 Sociology of Revolution (3 hrs)

[^13]:    Accounting - Taxation
    Accounting - Financial and Operation Controls
    Computer Information Systems
    E-Business
    Entrepreneurship
    Finance
    Human Resource Management
    Marketing Management
    Organizational Development
    Supply Chain Management

[^14]:    Leadership and Counseling
    DOCTOR OF EDUCATION in Educational Leadership
    SPECIALIST IN ARTS in Educational Leadership
    MASTER OF ARTS in Educational Leadership
    GRADUATE CERTIFICATE in Community College Leadership
    MASTER OF ARTS in School Counseling
    MASTER OF ARTS in College Counseling
    MASTER OF ARTS in Community Counseling
    GRADUATE CERTIFICATE in Helping Interventions in a
    Multicultural Society
    POST-MASTERS CERTIFICATE for School Counselor Licensure
    Special Education
    SPECIALIST OF ARTS in Special Education
    SPECIALIST OF ARTS in Special Education - Administration
    SPECIALIST OF ARTS in Special Education - Curriculum Development/Assistive Technology
    MASTER OF ARTS in Special Education
    MASTER OF ARTS in Special Education - Emotional Impairment
    MASTER OF ARTS in Special Education - Cognitive (mental) Impairment
    MASTER OF ARTS in Special Education - Physical and Health Impairment
    MASTER OF ARTS in Special Education - Visual Impairment
    MASTER OF ARTS in Special Education - Hearing Impairment
    MASTER OF ARTS in Special Education - General Special Education

[^15]:    Basic Concentration Courses.
    .21 hours
    EDLD509 Educational Leadership in a Pluralist Society (3 hrs)
    EDLD510 Educational Organization (3 hrs)

[^16]:    Concentration Courses
    Basic Counseling Core (required)
    COUN502 Helping Relationships: Basic Concepts and Services (3 hrs)

[^17]:    Concentration Courses (COUN)
    Basic Counseling Core (required)
    COUN502 Helping Relationships: Basic Concepts and Services (3 hrs)
    COUN505 Counselor Development: Basic Skills (3 hrs)
    COUN508 Theories of Counseling ( 3 hrs )
    COUN510 Counselor Development: Counseling Process (3 hrs)
    COUN520 Assessment in Counseling (3 hrs).
    COUN530 Career Development and Information Services (3 hrs)
    COUN540 Group Process I (3 hrs)
    COUN571 Cross-cultural Counseling (3 hrs)
    COUN622 Diagnosis and Treatment Planning in Counseling ( 3 hrs )
    Community Counseling Specialization Area (required)
    COUN631 Dynamics of Life Development (2 hrs)

[^18]:    Required Core Courses.
    11 hours
    COUN505 Counselor Development: Basic............................................. Skills (3 hrs)
    COUN571 Cross Cultural Counseling ( 3 hrs )
    COUN660 Community Resources (2 hrs)
    COUN671 Advanced Multicultural Counseling (3 hrs)

[^19]:    Foundation Courses.
    7 hours
    One course from the following:
    EDPS602 Psychology of the Adult Learner (2 hrs)
    EDPS603 Principles of Classroom Learning (2 hrs)
    One course from the following:
    CURR655 Curriculum Foundations ( 2 hrs )
    SOFD550 Philosophy, Ethics and Teaching (2 hrs)
    SOFD572 History of Education (2 hrs)
    One course from the following:
    EDPS677 Methods in Quantitative Research (3 hrs)
    EDPS687 Qualitative Research Techniques (3 hrs)

[^20]:    Advanced Level Courses ........................................................... 24 hours
    SWRK591 Proseminar: Research and Diversity (2 hrs)
    SWRK610 Empowerment: Social Justice and Social Change (2 hrs)
    SWRK630 Action Research (3 hrs)
    SWRK688/689 Field Experience III/IV (8 hrs)
    Select one of the following three concentrations:
    I. Family and Children's Services

    SWRK540 Policies and Issues in Services to Families (3 hrs)
    SWRK542 Family-Centered Practice (3 hrs)
    SWRK643 Families in the Social Environment (3 hrs)
    II. Mental Illness and Chemical Dependency

    SWRK650 Policy Issues in the Health Care Setting (3 hrs) SWRK652 Dynamics and Practice: Mental Illness Services (3 hrs)
    SWRK653 Dynamics and Practice: Chemical Dependency Services (3 hrs)

[^21]:    Required Courses.
    12-13 hours
    GERT512 Applied Psychosocial Aspects of Aging (3 hrs)
    BIOL511 Biological Aspects of Aging (2 hrs)
    SWRK552 Policy Issues and Older People (3 hrs)
    SWRK553 Ethnicity and Gender Issues Among the Aged (2 hrs)
    One course from the following:
    GERT688 Gerontology Practicum (2 hrs)
    GERT689 Gerontology Practicum (3 hrs)

[^22]:    Core Courses $\qquad$ 14 hours CNST501 Project Estimating (2 hrs) CNST502 Project Scheduling (2 hrs) CNST504 Project Management (2 hrs) CNST616 Analysis of Commercial Structures (3 hrs) CNST624 Project Productivity and Cost Control (3 hrs) CNST626 Construction Processes (2 hrs)

    ```Elective Courses..4-8 hoursFour to eight hours from the following:
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    CNST503 Construction Delays and Claims (2 hrs)
    CNST590/591/592 Special Topics ( $1 / 2 / 3 \mathrm{hrs}$ )
    (1/2/3 hrs)

    ```CNST645 Occupational Safety and Health (2 hrs)
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    CNST648 Principles of Construction Technology (2 hrs)
    CNST679/680/681 Special Topics (1/2/3 hrs)
    CNST682/683/684/685 Workshop (1/2/3 hrs)
    CNST689 Industrial Internship (2 hrs)
    CNSI690/691/692 Development Proje

    ```CNST697/698/699 Independent Study (1/2/3 hrs)
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[^23]:    INDT400 Polymers and Coatings Technology (3 hrs)
    INDT401 Polymers and Coatings Technology I Laboratory (3 hrs)
    INDT402 Polymers and Coatings Technology II (3 hrs)
    INDT403 Polymers and Coatings Technology II Laboratory (3 hrs)
    INDT404 Communication Workshop (3 hrs)
    INDT405 Coating Processes I (3 hrs)
    INDT409 Emerging Technologies in Storage and Retrieval (3 hrs)
    INDT412 Organizational Behavior for Public Safety Managers (3 hrs)
    INDT415 Senior Seminar in Technology Management (3 hrs)
    INDT416 Water-Based Coatings (3 hrs)

[^24]:    * Parking rates subject to change.

